THE UNIVERSITY OF ARIZONA
Mel & Enid Zuckerman College of Public Health

SELF-STUDY REPORT

Prepared for the
Council on Education for Public Health

January 2020

TABLE OF CONTENTS

Introduction

1) Describe the institutional environment, which includes the following:

a. Year institution was established and its type (eg, private, public, land-grant, etc.)

The University of Arizona was established in 1885 as a land-grant institution in Tucson, Arizona. The formation of the Mel and Enid Zuckerman College of Public Health (MEZCOPH) itself was approved by the Arizona Board of Regents in January 2000.

b. Number of schools and colleges at the institution and the number of degrees offered by the institution at each level (bachelor's, master's, doctoral and professional preparation degrees)

Below are data about the number of colleges, schools and degrees offered by the University of Arizona:

Colleges:	19
Schools:	22

Degrees Offered:	
Bachelors	130
Masters	143
Doctorate	93
Specialist	3
First Professional (Med, Law, Pharm)	3
Total	372

c. Number of university faculty, staff and students

The most recent University of Arizona census provides the following information about the University's population.

Faculty:	*3,090*
Staff:	*9,598*
Students:	*44,831*

d. Brief statement of distinguishing university facts and characteristics

Established in 1885, the University of Arizona (UA), the state's only land-grant university with two medical schools, produces graduates who are real-world ready. Recognized as a global leader, the UA is also a leader in research, bringing more than $622 million in research investment each year, and ranking 22nd among all public universities. The UA is advancing the frontiers of interdisciplinary scholarship and entrepreneurial partnerships and is a member of the Association of American Universities, the 62 leading public and private research universities. It benefits the state with an estimated economic impact of $8.3 billion annually.

e. Names of all accrediting bodies (other than CEPH) to which the institution responds. The list must include the regional accreditor for the university as well as all specialized accreditors to which any school, college or other organizational unit at the university responds

The University of Arizona is accredited by the Higher Learning Commission (HLC). The HLC is one of six regional accreditation agencies recognized by the U.S. Department of Education. The University's last comprehensive evaluation for re-accreditation occurred in 2010 and validated the University's extraordinary quality and integrity of academics, research, administration, faculty, staff, resources, facilities and procedures. A list of all other accreditations for the academic units at the University, programs, laboratories, research centers, departments and schools is available at *https://catalog.arizona.edu/accreditation*.

The University of Arizona has earned the designation of a Hispanic Serving Institution (HSI) from the U.S. Department of Education for its success in the enrollment of Hispanic students and in providing educational opportunities to them. The **HSI designation** opens new opportunities to boost supplemental grants and student support services, as well as additional benefits to the UA for research collaborations and partnerships. The UA joins 105 four-year public institutions and only a few from Research I and the Association of American Universities that meet the criteria for eligibility for HSI designation, according to the **most recent data** from the Hispanic Association of Colleges and Universities. The UA is the first of Arizona's three state universities to be so designated. Additionally, MEZCOPH is an active member of the Hispanic-Serving Health Professionals Schools.

f. Brief history and evolution of the school of public health (SPH) and related organizational elements, if applicable (eg, date founded, educational focus, other degrees offered, rationale for offering public health education in unit, etc.)

The Mel and Enid Zuckerman College of Public Health (MEZCOPH) originated as a program in public health within the Department of Family and Community Medicine at the University of Arizona College of Medicine. The MPH program was initially accredited in 1994 and obtained full accreditation in 1997. The Arizona Prevention Center was approved in 1997 by the Arizona Board of Regents as a Class I Center of Excellence and served as the primary predecessor to MEZCOPH. Faculty members of this center were the original core faculty of MEZCOPH. The Center still remains as an integral part of MEZCOPH and has been renamed the Canyon Ranch Center for Prevention and Health Promotion.

In January 2000, MEZCOPH was officially established by the Arizona Board of Regents and with the financial support from Mel and Enid Zuckerman, founders of Canyon Ranch Health Resorts, a building fund and endowments were created to provide the bricks and mortar for a building and to initiate the process of securing funds that were needed to create a college. In recognition of this support, on July 1, 2002 the College was officially named the Mel and Enid Zuckerman College of Public Health and is referred to as MEZCOPH throughout this document. In 2003, MEZCOPH received its initial CEPH accreditation as a College and in 2005 and 2013 the College was re-accredited for the maximum amount of seven years.

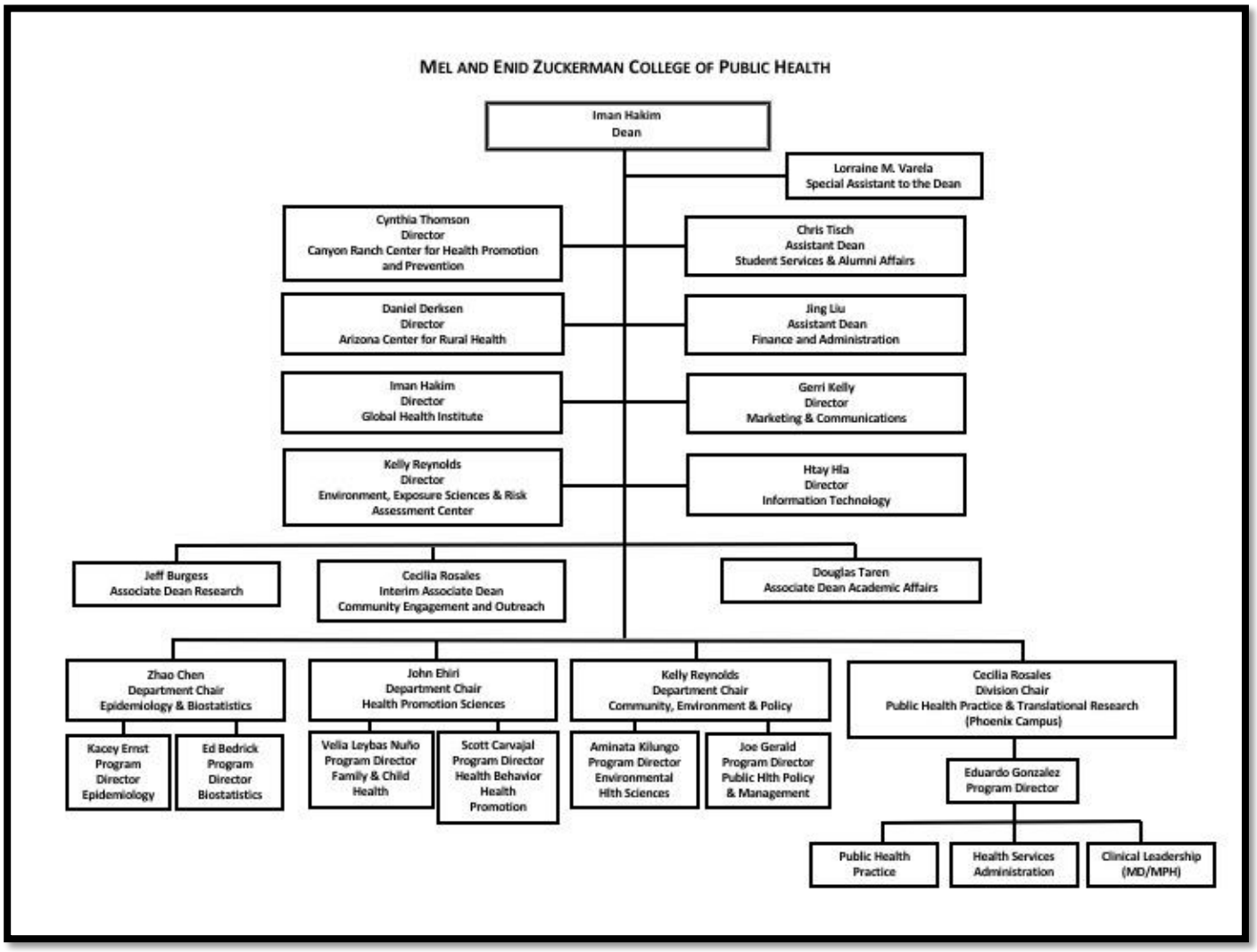
In October 2014, MEZCOPH established a collaboration with Pearson Embanet to have them support the marketing, recruitment, student support and development of courses for our online MPH program. The contract established an initial 5-year collaboration at which time it would be reviewed for its further continuation. This collaboration led to the implementation of the program with students being enrolled every semester for the past 4 years. However, since the implementation of this online program, the University of Arizona established Arizona Online, an office that provides the same services as Pearson Embanet. Therefore, we are now in negotiation to terminate the contract with Pearson Embanet and move these services onto our own campus. This will allow our Office of Academic Affairs and Office of Student Services to have a closer tie to the delivery of these services with personnel being housed on campus.

2) Organizational charts that clearly depict the following related to the school:

a. The school's internal organization, including the reporting lines to the dean*

The organizational chart in **Figure 1** provides the lines of communications that occur within MEZCOPH. The major centers, divisions, departments and support services are identified within the chart.

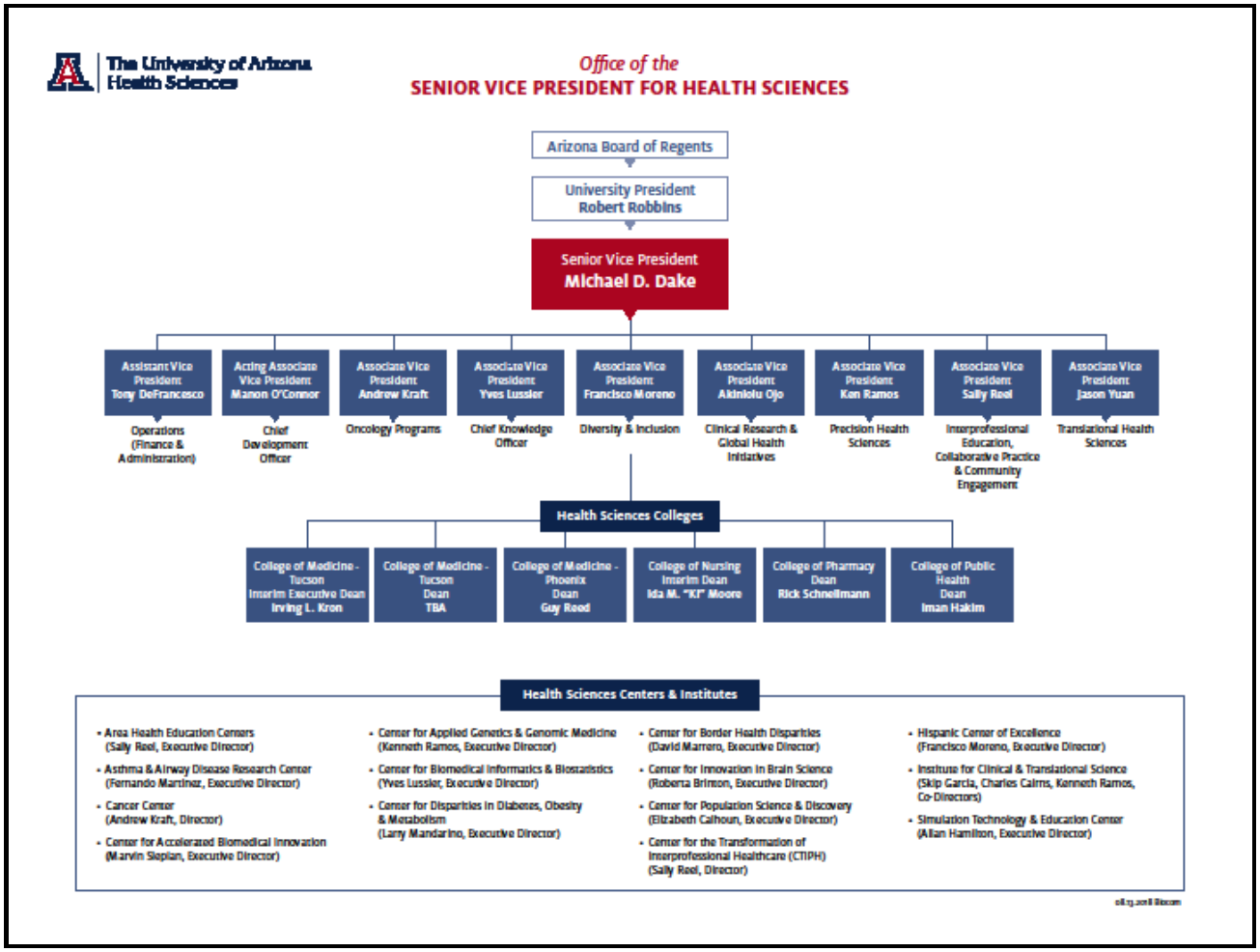
Figure 1. Organizational Chart, Mel and Enid Zuckerman College of Public Health



b. The relationship between school and other academic units within the institution. Organizational charts may include committee structure organization and reporting lines

As MEZCOPH is housed within the University of Arizona Health Sciences Center (**Figure 2**), Dean Iman Hakim reports directly to the Senior Vice President for Health Sciences, Dr. Michael Dake. As a college within the health sciences, MEZCOPH works collaboratively with the other colleges and institutes within the health sciences center.

Figure 2. Organizational Chart, University of Arizona Health Sciences



c. The lines of authority from the school's leader to the institution's chief executive officer (president, chancellor, etc.), including intermediate levels (eg, reporting to the president through the provost)

The Organizational Chart for the University of Arizona is provided in the **ERF I-1**. It indicates that the five health sciences colleges report to the Senior Vice President for Health Sciences and the other 14 colleges in the University report to the Senior Vice President for Academic Affairs and Provost. The UA Organizational Chart also identifies the non-academic support offices.

d. For multi-partner schools and schools (as defined in Criterion A2), organizational charts must depict all participating institutions

Not Applicable

3) An instructional matrix presenting all of the school's degree schools and concentrations including bachelor's, masters and doctoral degrees, as appropriate. Present data in the format of Template Intro-1.

MEZCOPH provides a college-wide bachelor of science major in public health. It offers an MPH program with14 concentrations, a DrPH program with 2 concentration areas and academic graduate programs in four topic areas. A summary of these programs in **Template Intro-1**.

Template Intro-1. MEZCOPH Degree Programs

Degrees					Categorized as Public Health	Campus Based	Distance Based
Public Health			BS		X	BS	BS
Master's Degrees			Academic	Professional			
Applied Epidemiology				MPH	X		MPH
Biostatistics			MS	MPH	X	MPH MS	
Clinical Leadership				MPH	X	MPH	
Environmental and Occupational Health				MPH	X	MPH	
Environmental and Occupational Health-Industrial Hygiene				MPH	X	MPH	
Environmental Health Sciences			MS		X	MS	
Epidemiology			MS	MPH	X	MPH MS	
Family and Child Health - MCH				MPH	X	MPH	
Family and Child Health - Global				MPH	X	MPH	
Health Behavior Health Promotion			MSPH	MPH	X	MPH MSPH	
Health Promotion				MPH	X		MPH
Health Services Administration				MPH	X	MPH	MPH
One Health				MPH	X	MPH	
Public Health Policy and Management				MPH	X	MPH	
Public Health Practice				MPH	X	MPH	
Doctoral Degrees							
Biostatistics			PhD		X	PhD	
Environmental Health Sciences			PhD		X	PhD	
Epidemiology			PhD		X	PhD	
Health Behavioral Health Promotion			PhD		X	PhD	
Maternal and Child Health				DrPH	X	DrPH	
Public Health Policy and Management				DrPH	X	DrPH	
Joint Degrees			Academic	Professional			
	Existing concentration	Joint-specific concentration					
Latin Am Studies	Any			MPH-MA	X	MPH	
Mexican Am Studies	Any			MPH-MS	X	MPH	
Law	Any			MPH-JD	X	MPH	
Business	Any			MPH-MBA	X	MPH	
Medicine		PHPM		MPH-MD	X	MPH	
Pharmacy	Any			MPH-PharmD	X	MPH	
Gulf Medical University		PHP		MPH-MPH	X	MPH	MPH

4) Enrollment data for all of the school's degree schools, including bachelor's, master's and doctoral degrees, in the format of Template Intro-2. Schools that house "other" degrees and concentrations (as defined in Criterion D19) should separate those degrees and concentrations from the public health degrees for reporting student enrollments.

The enrollment data in **Template Intro 2** is from our fall 2018 Census numbers. There was a total of 1,673 students enrolled in MEZCOPH degree programs. (fall 2019 will be available in the final report).

Template Intro 2 - Enrollment - Fall 2018

Degree	Current Enrollment
Master's	
MPH - On Campus	
Biostatistics	8
Environmental and Occupational Health	11
Environmental and Occupational - Indus. Hygiene	6
Epidemiology	37
Family and Child Health - Global	20
Family and Child Health - Global/MA	4
Family and Child Health - Global/MBA	1
Family and Child Health - MCH	14
Family and Child Health - MCH/MA	3
Family and Child Health - MCH/PharmD	1
Health Behavior Health Promotion	32
Health Services Administration	26
MD/MPH	37
One Health	10
Public Health Policy and Management	19
Public Health Policy and Management/JD	2
Public Health Policy and Management/MBA	1
Public Health Policy and Management/PharmD	1
Public Health Practice	19
MPH - Online	
Applied Epidemiology	46
Health Promotion	63
Health Services Administration	158
MS	
Biostatistics	7
Environmental Health Sciences	3
Epidemiology	4
Health Behavior Health Promotion (MS/PhD)	3

Doctoral	
DrPH	
Maternal and Child Health	24
Public Health Policy and Management	13
PhD	
Biostatistics	18
Environmental Health Sciences	17
Epidemiology	17
Health Behavior Health Promotion	16
Bachelor's	
BS in Public Health *	280
BS-Online	25
Pre-Public Health	727

* Upon admissions to the UA or any time before being accepted into the public health major, students are able to choose to be identified as pre-public health majors. These students are then able to be linked to advisors in our Office of Student Services who support the development of their academic plans of study so they have information about the requirements for being accepted into public health major. A full description of this process is provided in Section 9.

A1. ORGANIZATION AND ADMINISTRATIVE PROCESSES

A1. ORGANIZATION and Administrative Processes

The school demonstrates effective administrative processes that are sufficient to affirm its ability to fulfill its mission and goals and to conform to the conditions for accreditation.

The school establishes appropriate decision-making structures for all significant functions and designates appropriate committees or individuals for decision making and implementation.

The school ensures that faculty (including full-time and part-time faculty) regularly interact with their colleagues and are engaged in ways that benefit the instructional school (eg, participating in instructional workshops, engaging in school-specific curriculum development and oversight).

1) List the school's standing and significant ad hoc committees. For each, indicate the formula for membership (eg, two appointed faculty members from each concentration) and list the current members.

MEZCOPH has 14 college-level standing committees. These are: 1) Executive Council, 2) Dean's Council, 3) Promotion and Tenure Committee, 4) Education Committee, 5) Student Scholarships and Financial Aid, 6) Research Advisory Committee, 7) Community Engagement, Practice and Service Committee, 8) Student Affairs Committee, 9) MEZCOPH Staff Forum (proposed with reorganization), 10) Faculty Assembly, 11) Committee on Inclusion and Equity, 12) Environment Committee, 13) Evaluation Committee, and 14) Community Advisory Board.

The College's structure has allowed it to be responsive to the changing landscape of higher education and to make changes to improve its. Examples include having college-wide votes to change the bylaws, the establishment of departments from divisions, updated promotion and tenure guidelines for tenure and career track faculty, the creation of a College Environment Committee that promoted and helped create a lactation room and water bottle filling station, an active Committee on Inclusion and Equity and student representation on committees.

A list of the College's standing and significant ad hoc committees is provided in **Table A1**. This includes the name of the committees, their charge, the formula used to determine their composition and the current members.

Table A1. MEZCOPH Committees

Committee Name	Committee Charge	Composition of Committee	Committee Membership
1) **Dean's Council**	**Committee Charge**: Administer and direct the College's strategic and high-level operational activities as they relate to ongoing mission and strategic directions. The Dean's Council is advisory to the Dean. The Dean's Council meets once a month, except June/July.	**1. Dean (Chair)** 2. Special Assistant to the Dean 3. Associate Dean, Academic Affairs 4. Interim Associate Dean, Community Engagement & Outreach 5. Associate Dean, Research & Chair, Evaluation Committee 6. Dept. Chair, Community, Environment and Policy 7. Dept. Chair, Epidemiology and Biostatistics 8. Dept. Chair, Health Promotion Sciences 9. Associate Dean, Phoenix Programs 10. Assistant Dean, Student Services & Alumni Affairs 11. Assistant Dean, Finance & Administration 12. Director, Information Technology	**1. Iman Hakim** 2. Lorraine Varela 3. Doug Taren 4. Cecilia Rosales 5. Jeff Burgess 6. Kelly Reynolds 7. Zhao Chen 8. John Ehiri 9. Cecilia Rosales 10. Chris Tisch 11. Jing Liu 12. Htay Hla
2) **Executive Council**	**Committee Charge:** Monitor, manage, evaluate	1. **Dean (Chair)** 2. Special Assistant to the Dean	1. **Iman Hakim** 2. Lorraine Varela

Committee Name	Committee Charge	Composition of Committee	Committee Membership
	and direct the activities and provide strategic planning for the College. Communicate important & current school-wide information on existing policies and procedures. Executive Council meets once a semester (April and October)	3. Associate Dean, Academic Affairs 4. Interim Associate Dean, Community Engagement & Outreach 5. Associate Dean, Research & Chair, Evaluation Committee 6. Dept. Chair, Community, Environment and Policy 7. Dept. Chair, Epidemiology and Biostatistics 8. Dept. Chair, Health Promotion Sciences 9. Associate Dean, Phoenix Programs 10. Assistant Dean, Student Services & Alumni Affairs 11. Assistant Dean, Finance & Administration 12. Director, Information Technology 13. Chair, Faculty Assembly 14. Co-Chairs, Committee on Inclusion & Equity 15. MEZCOPH Staff Forum (proposed) 16. Doctoral Student 17. Master Student 18. Undergraduate Student 19. Online Student 20. Community Representative	3. Doug Taren 4. Cecilia Rosales 5. Jeff Burgess 6. Kelly Reynolds 7. Zhao Chen 8. John Ehiri 9. Cecilia Rosales 10. Chris Tisch 11. Jing Liu 12. Htay Hla 13. Janet Foote 14. Agnes Attakai, Paloma Beamer & Kacey Ernst 15. TBD 16. TBD 2019-20 17. TBD 2019-20 18. TBD 2019-20 19. Rachel Castillo 20. Robert Guerrero
3) **Promotion and Tenure Committee**	**Committee Charge**: Develop College P&T guidelines, consider faculty applications for P&T actions, review post tenure evaluations, and make recommendations for faculty advancement. The P&T Committee meets every other week October through February and on an ad hoc basis during the remainder of the year.	1. **Professor, Division of Public Health Practice & Translational Research (Chair)** 2. Professor, Dept. Health Promotion Sciences 3. Professor, Dept of Epidemiology and Biostatistics 4. Professor, Dept of Community Environment and Policy 5. Dean's Appointment 6. Associate Dean, Academic Affairs (ex-officio) 7. Coordinator, Personnel and Faculty Status	1. **Jennifer Hatcher** 2. David Marrero 3. Melanie Bell 4. Jeff Burgess 5. Beth Jacobs 6. Douglas Taren 7. Joy Caron
4) **Education Committee**	**Committee Charge:** Set the education agenda for the College. Evaluates program effectiveness, provides curriculum	**1. Associate Dean, Academic Affairs (Ex-Officio)** **2.** Program Director, Epidemiology **3.** Program Director, Biostatistics	**1. Douglas Taren** **2.** Kacey Ernst **3.** Ed Bedrick

Committee Name	Committee Charge	Composition of Committee	Committee Membership
	oversight to the programs, and develops academic policies for the College. The Education Committee is advisory to the Associate Dean for Academic Affairs and to the Dean. The committee meets monthly.	**4.** Program Director, Family and Child Health **5.** Program Director, Health Behavior Health Promotion **6.** Program Director, Environmental Health Sciences **7.** Program Director, Public Health Policy & Management **8.** Program Director, Public Health Practice & Translational Research **9.** Assistant Dean, OSSAA **10.** Director Online MPH Program **11.** Student, Undergraduate Program **12.** Student, Master Program **13.** Students, Doctoral Programs **14.** Online Programs <u>Advising Members</u> 1. Associate Dean, Division of Public Health Practice & Translational Research 2. One Health Program 3. Director, Admissions 4. Coordinator, MPH Program 5. Coordinator, MS/Doctoral & Certificate Programs 6. Coordinator, Phoenix Programs 7. Coordinator, Undergraduate Programs 8. Academic Advisor/Online Undergraduate 9. Academic Advisor 10. Academic Advisor 11. Online MPH Coordinator 12. Undergraduate Internship Lecturer 13. Administrative Assistant, Student Services 14. Sr. Coordinator, Academic Affairs/Faculty Status	**4.** Velia Leybas-Nuño **5.** Scott Carvajal **6.** Aminata Kilungo **7.** Joe Gerald **8.** Eduardo Gonzalez **9.** Chris Tisch **10.** Spencer Willis **11.** Sandra Goreayeb **12.** Gabriela Coronel **13.** Magdiel Habila & Brianna Rooney **14.** Linda Soto <u>Advising Members</u> 1. Cecilia Rosales 2. Kristen Pogreba-Brown 3. Amy Glicken 4. Tanya Nemec 5. Michael Tearne 6. Kim Barnes 7. Melanie Fleck 8. Grace Patterson 9. Maggie Ramirez 10. Abba Versace 11. Samantha Pierce 12. Laura Gronewald 13. Gisela Ochoa 14. Danielle Embry
5) **Scholarship Committee**	**Committee Charge:** The Scholarship Committee develops criteria and makes decisions regarding the distribution of scholarships that are available to MEZCOPH students. It works with the Development Officer to distribute UA Foundation	**1. Assistant Dean, OSSAA** Representatives from: 2. Division of Public Health Practice & Translational Research 3. Department of Health Promotion Sciences 4. Department of Community, Environment and Policy 5. Department of Epidemiology and Biostatistics	**1. Chris Tisch (Chair)** 2. Cecilia Rosales 3. Aminata Kilungo 4. Mary Kay O'Rourke

Committee Name	Committee Charge	Composition of Committee	Committee Membership
	based aid for students. It acts as an information clearinghouse for financial resources that are available to students.	6. Finance Office (Advising Member)	5. Beth Jacobs 6. TBD
6) **Research Advisory Committee**	**Committee Charge:** To review current research policy and practice and make suggestions for improvement. Provide reviews of grants prior to submission. The committee meets monthly.	**1. Associate Dean for Research (Chair)** 2. Professor, Health Promotion Sciences & Associate Dean, Academic Affairs 3. Professor, Health Promotion Sciences 4. Professor, Health Promotion Sciences 5. Professor, Health Promotion Sciences & Director Arizona Prevention Research Center 6. Professor, Epidemiology & Co-Director, Skin Cancer Institute 7. Professor, Biostatistics 8. Senior Associate, UA Research Development Service	**1. Jeff Burgess** 2. Doug Taren 3. Cyndi Thomson 4. David Marrero 5. Scott Carvajal 6. Robin Harris 7. Melanie Bell 8. Jamie Boehmer
7) **Community Engagement Practice & Service Committee**	**Committee Charge:** To review and develop recommendations on how to evaluate service activities in the Promotion and Tenure guidelines of the College. The committee meets monthly.	**1. Interim Associate Dean for Community Engagement and Outreach (Chair)** 2. Assistant Dean, Student Services & Alumni Affairs 3. Associate Professor, Epidemiology 4. Assistant Professor, Epidemiology 5. Assistant Professor, Community, Environment & Policy 6. Lecturer/Manager, Rural Programs, Center for Rural Health 7. Associate Director, Western Regional Public Health Training Center, Administration 8. Special Projects Coordinator, Center for Rural Health 9. Coordinator, Special Projects, Dept. Community, Environment & Policy 10. Research Specialist, Diversity & Inclusion, Administration 11. Community Engagement and Outreach Coordinator, Administration 12. Librarian, Arizona Health Sciences Center 13. Coordinator, Community Health Promotion, Center for Rural Health 14. Senior program coordinator of the Medicare Rural Hospital Flexibility (Flex) Program, Dept. Community, Environment & Policy 15. Coordinator, 100% Engagement / Academic Advisor II, Administration 16. Co-Director, Arizona Prevention Research Center, Dept. Health Promotion Sciences	**1. Cecilia Rosales** 2. Chris Tisch 3. Kacey Ernst 4. Kate Ellingson 5. Stephanie Carroll 6. Martha Moore-Monroy 7. Abby Stoica 8. Alyssa Padilla 9. Bryna Koch 10. Deanna Lewis 11. Emily Waldron 12. Jean McClelland 13. Jennifer Peters 14. Joyce Hospodar 15. Maggie Ramirez 16. Maia Ingram

Committee Name	Committee Charge	Composition of Committee	Committee Membership
		17. Project Manager; Data Specialist, Dept. Community, Environment & Policy	17. Nate Lothrop
8) **Student Affairs**	**Committee Charge**: The Student Affairs Committee acts as a clearinghouse for issues related to students; advocates for resolution of student issues; recommends improvements to College operations and supports student organizations, events and initiatives. The committee is chaired by the Assistant Dean for Student and Alumni Affairs and a student elected by the membership of the Student Affairs Committee. The Student Affairs Committee sets criteria for selection and terms of membership. The Student Affairs Committee meets quarterly.	1. **Asst Dean, Student Services & Alumni Affairs (Chair)** 2. Student Members 3. OSSAA Members	1. **Chris Tisch (Chair)** 2. Student Members Joel Parker Sarah Gruza Gloria Villa Barbosa Kaili Wagoner Hannah Martin Lisa Floran Dexter Gulick Emily Cooksey Mario Trejo Magdiel Habila Namoonga Mantina Linda Kimaru Brianna Rooney 3. OSSAA Members Amy Glicken Tanya Nemec Michael Tearne Kim Barnes Gisela Ochoa
9) **MEZCOPH Staff Forum (proposed)**	**Committee Charge:** The Staff Forum is a resource for college staff on issues related mentoring, career progression, and professional development for non-faculty employees. The forum also provides input to the Executive Council on issues related to staff. The forum is new based on a revision of the University architectural structure for employees and meets at least quarterly and still needs to be approved.	General Membership is open all academic/administrative professionals.	All non-faculty members of the college
10) **Faculty Assembly**	**Committee Charge:** Addresses issues that are the prerogative and duty of the faculty as defined under the University Handbook for Appointed Personnel. Such issues	**Associate Professor, Health Promotion Sciences (Chair)** Everyone with a faculty appointment that is at least 0.50FTE.	**Janet Foote (Chair)**

Committee Name	Committee Charge	Composition of Committee	Committee Membership
	would include, but are not limited to, creation of programs, requirements of such programs, representation on the UA Faculty Senate, among others. Each year, a Chair-elect will be chosen by the voting members of the Faculty Assembly. The Chair serves one year and the Chair-elect serves two years (one as Chair-Elect and second as Chair). The Faculty Assembly meets at least quarterly.		
11) **Committee on Inclusion and Equity**	**Committee Charge:** To identify and address issues related to building and maintaining a culture supporting diversity and Inclusion throughout the College. The committee meets monthly.	**Co-Chairs** **1. Associate Professor, Community, Environment & Policy (Co-Chair)** **2. Associate Professor, Epidemiology (Co-Chair)** **3. Director, Health Disparities Outreach & Prevention Education, Dept. of Community, Environment & Policy (Co-Chair)** **4. All other members of the MEZCOPH Community who ask to be on the committee.**	**Paloma Beamer** **Kacey Ernst** **Agnes Attakai** **Members** Amanda Hunter Amy Glicken Brenna Bernardino Bridget S. Murphy Briggs Carhart Bryna Koch Carrie Joseph Cecilia Rosales Chris Tisch Cody Rocha David Garcia Deanna Lewis Dora Valencia Forest Melton Gisela Ochoa Iman Hakim Janice Baldwin-Rowe Jean McClelland Jennifer Peters Jennifer Richards Jessica Seline Jhenitza Raygoza Jill Guernsey de Zapien Kelly Palmer

Committee Name	Committee Charge	Composition of Committee	Committee Membership
			Kimberly Parra Laura Gronewold Leslie Dennis Lydia Kennedy Maia Ingram Martha Monroy Michael Tearne Namoonga Mantina Nicole Yuan Rachel Leih Rachelle Begay Rodrigo Valenzuela-Cordova Roxanna Apaez Stephanie Gomez Stephanie Russo Carroll Timothy Cruz
12) **Environment Committee**	**Committee Charge:** The College Environment Committee is dedicated to promoting the health and wellbeing of the college by contributing to a climate that: provides a friendly, supportive, inclusive and welcoming work environment; values all who work or study here; fosters communication and camaraderie at all levels; and promotes collaboration among all members of the MEZCOPH community. Meets Monthly	The Committee is made up of people who work or study here who are dedicated to promoting the health and wellbeing of ourselves and our colleagues. Membership is open to all MEZCOPH employees and students.	Current Steering Committee: Yann Klimentidis, Melissa Quezada, Kim Barnes, Michael Tearne, Rebecca Ruiz and Nicole Bergier Current Members: Amy Glicken, Emily Waldron, Gisela Ochoa, Joy Caron, Annette Hillman, Chris Tisch, Doug Taren, Kyrra Khaler, Erika Barrette, Dina Suarez, Julie Roger, Kelly Palmer, Rachel Leih, Sana Khan, Maggie Ramirez, Abby Lohr, Lourdes Heslep, Suzette Molina and Spencer Willis.
13) **Evaluation Committee**	**Committee Charge:** To monitor procedures to evaluate the College's progress towards meeting its mission, goals and objectives, and oversees the process of evaluating all major aspects of the College's operations. The Committee is advisory to	**Associate Dean for Research (Chair)** Associate Dean, Academic Affairs Associate Dean, Assistant Dean Assistant Dean Director, IT Special Assistant to the Dean	**Jeff Burgess (Chair)** Doug Taren Cecilia Rosales Chris Tisch Jing Liu Htay Hla Lorraine Varela

Committee Name	Committee Charge	Composition of Committee	Committee Membership
	the Dean's Council and the Dean. The committee meets twice a year.		
14) **Community Advisory Board**	**Committee Charge**: Support the mission of the College by increasing awareness of health promotion and prevention strategies through community collaboration, fund raising and advocacy activities. The Community Advisory Board meets quarterly.	**Chairman of the Board** Community Relations Director, Zuckerman Family Foundation Director, Arizona Department of Health Services VP, Sasiadek's Information Technologies Chief, Border Health, AZ Dept of Health Services Director, Marketing & Public Relations and Executive Director, Arizona Public Health Association Community Volunteer Corporate Counsel, Canyon Ranch Manager, US Operations for the Nanjing American University, LLC KVOA News 4 Reporter President, Bill Westcott, Inc. Community Volunteer Founder, Developer, and Chairman of the Board of Canyon Ranch EX-OFFICIO MEMBERS Dean Associate Dean, Research Associate Dean, Phoenix Campus Associate Dean, Academic Affairs Assistant Dean, Student and Alumni Affairs Director, Development	**David McEvoy, JD** Kim Bourn Cara Christ, MD, MS Allison Duffy Skeif, MBA Robert Guerrero, MBA Will Humble, MPH Jan Konstanty Nicole Zuckerman-Morris, JD Alberto Piña Moore Lupita Murillo Joanna Westcott Amy Zuckerman Mel Zuckerman Iman Hakim Jeff Burgess Cecilia Rosales Doug Taren Chris Tisch Donna Knight

1. Briefly describe which committee(s) or other responsible parties make decisions on each of the following areas and how the decisions are made:

a. degree requirements

The Education Committee is the overarching group that determines degree requirements and approval for degree requirements, and are based on a majority vote. The UA Graduate College requires the same number of credits for all the MPH concentrations as they are all part of a single degree program. Departments initiate degree programs and are approved by the Education Committee. Additionally, new degrees need to be approved by several university committees and the Arizona Board of Regents.

b. curriculum design

The Education Committee is the overarching group that determines how the curricula are designed. An undergraduate sub-committee of the Education Committee makes recommendations for any changes to the college-wide undergraduate curricula. Departments initiate how curricula are designed for MPH concentrations and academic degrees. All new curricula and changes to curricula designs are reviewed by the Education Committee and approved when they impact the required MPH courses and other degree programs. The Education Committee requires a majority vote to approve new and significantly modified curricula designs. Changes to required courses also need to be approved by several university committees.

c. student assessment policies and processes

The Education Committee sets standards for assessing student progress in courses. This is done at the time when any new course is presented to the committee by reviewing the syllabus and ensuring that there is a clear method for student assessment. The Office of Student Services and Alumni Affairs works with the Education Committee to determine the processes to assess progress toward graduation and the processes to deliver the curricula.

d. admissions policies and/or decisions

The Education Committee determines admissions policies for the undergraduate and graduate programs, and must follow University and Graduate College policies. The Education Committee sets the admissions criteria for the undergraduate major. Academic advisors in the Office of Student Services and Alumni Affairs review all applications to the major and make admissions decisions based on whether applicants meet the minimum admissions standards. If an applicant has unusual or questionable circumstances, the Undergraduate Sub-Committee of the Education Committee is consulted.

Official admissions for all graduate programs occur through the UA Graduate College. Each program sets admissions criteria for their MS, PhD, and DrPH programs, and the Education Committee sets admissions criteria for the MPH program. MEZCOPH Department-level admissions committees make recommendations to the Graduate College, and the Graduate College confirms that the applicant has a bachelor's degree (or master's degree if this is required) from a 4-year, accredited institution with a 3.0 GPA, as well as any required English proficiency exams for international applicants.

The Environmental Health Sciences Department has also developed an accelerated five-year Bachelor of Science to Master of Public Health degree option for exceptional students. The combined, structured degree enables students to replace elementary level courses in the bachelor program with deeper expertise provided in the master level coursework. Students must apply for entry, and admission to the program is highly competitive, requiring a 3.3 GPA and additional math and science coursework (calculus, physics, and organic chemistry). Students begin the MPH curriculum their senior year as an undergraduate, and 12 units of graduate coursework is double-counted towards the BS degree and MPH degree. Since the program began in 2014, five students have completed the accelerated BS to MPH.

Each program handles admissions decisions differently. For all MS, PhD, and DrPH programs, at least two faculty members review each application, and make a recommendation to admit, interview, or deny to the program's admissions committee. Some doctoral programs interview top applicants before an admissions decision is made. The admissions committee, led by the Program Director, makes the final admissions decision. In the MPH program, six programs--Biostatistics, Epidemiology Environmental Health Sciences, Health Services Administration, One Health, and Public Health Practice--have two faculty members review each application and make a recommendation to their program's admissions committee. Three other programs—Family and Child Health, Health Behavior Health Promotion, and Public Health Policy and Management—ask the Office of Student Services and Alumni Affairs to conduct a first review of each application, and make a recommendation to admit, deny, or discuss. In this case, notes regarding the applicant's qualifications and any red flags

are reviewed with the Program Director and/or a small committee. Faculty members make the final admissions decisions on all applications.

Dual degree applicants must apply to both the MPH program via SOPHAS and their other program of choice, and must be admitted to both programs separately. The MPH program accepts the test scores from the other program (e.g., LSAT for the JD/MPH, GMAT for the MBA/MPH, and the PCAT for the PharmD/MPH).

For the online MPH program, the faculty have given Pearson a set of admissions criteria and minimum standards. The Associate Director of Recruitment Services for Pearson reviews all applications. If an applicant meets the minimum qualifications and does not have any red flags, they are recommended for admission. If an applicant does not meet minimum qualifications and/or has red flags, the application is sent to the Program Director for an admissions decision. All applications are reviewed by the Associate Dean for Academic Affairs before a recommendation to admit is submitted to the Graduate College.

e. faculty recruitment and promotion

Faculty recruitment is initiated by Departments when funds are available for a position. Departments develop a search committee and work with the College's Office of Human Resources and the Committee on Inclusion and Equity to develop an appropriate position announcement and recruitment strategy.

Faculty promotion follows university policies and practices and begins with a department P&T committee that reviews promotion dossiers and then is reviewed by the College P&T Committee with recommendations being made to the Dean. Dossiers are then forwarded to the University P&T Committee who makes a recommendation to the Provost. The Provost and the Senior Vice President for Health Sciences make the final determination.

f. research and service activities

The College's research advisory committee makes decisions regarding research goals and objectives. The Community Engagement, Practice and Service Committee sets goals and objectives that support service activities. These committees also monitor and report the College's research and service activities annually to the Dean's Council.

2. A copy of the bylaws or other policy documents that determine the rights and obligations of administrators, faculty and students in governance of the school.

The most recent College Bylaws were approved January, 23, 2019 and are in the **ERF A1**. They are currently going under revision (**ERF A1.a**) and will be available to the site visitors.

3. Briefly describe how faculty contribute to decision-making activities in the broader institutional setting, including a sample of faculty memberships and/or leadership positions on committees external to the unit of accreditation.

MEZCOPH faculty participate on several university-level standing committees and on college-level and health sciences center ad-hoc committees. At the University level, MEZCOPH faculty serve on the faculty senate, the undergraduate and graduate curriculum committees, the University P&T committee, the College Academic Administrators Council. MEZCOPH faculty have been members of several search committees for senior level administrators. A MEZCOPH faculty member, Dr. Daniel Derksen, is currently the University of Health Sciences Associate Vice President for Health Equity, Outreach and Interprofessional Activities. **Table A2** provides additional specific examples for how MEZCOPH faculty participate with university activities:

Table A2 MEZCOPH Faculty's University Activities - Examples

University Activities and Committees	**MEZCOPH Faculty and Roles**
University Faculty Senate	Melanie Bell and Joe Gerald, elected members
University's Committee for Global Locations	Iman Hakim, Member
Internationalization Subcommittee: Global Research, Contracts and Projects (2018)	Iman Hakim, Co-Chair
Health Sciences Center Strategic Plan	Jeff Burgess, Lead, Strategy Implementation Group Daniel Derksen, Lead, Interprofessional Education Portfolio, Heather Carter, Lead, Minimize the Debt Burden Douglas Taren, co-Lead, UAHS Global Kelly Reynolds: Co-Lead One Health
Search Committee for Dean, College of Nursing	Jeff Burgess, Co-chair
Search Committee for University Provost	John Ehiri, member
Search Committee for Sr. VP Global Initiatives	John Ehiri, member
Search Committee for VP Finances	Daniel Derksen, Co-chair
Search Committee for Dean, College of Medicine	Daniel Derksen, member
Search Committee for Dean, Veterinary Schools	Iman Hakim, member
Search Committee for Sr. VP for Health Sciences	Iman Hakim, co-chair
Undergraduate Council	Leslie Dennis, member
College of Academic Administrators Council	Chris Tisch, member Douglas Taren, member
Academic Program Review, College of Law	Douglas Taren, member
Academic Program Review, Dept. of Surgery	Douglas Taren, member
Academic Program Review, College of Medicine, Phoenix	Cecilia Rosales, member
Faculty Senate	Melanie Bell, member
University Promotion and Tenure	Denise Roe, member
University Accreditation Committee	Joe Gerald, member

4. Describe how full-time and part-time faculty regularly interact with their colleagues (self-study document) and provide documentation of recent interactions, which may include minutes, attendee lists, etc.

MEZCOPH has two college-wide retreats each year at the end of the fall and spring semesters. These retreats are open to all full-time and part-time faculty. The faculty assembly meets at least 4 times a year. Department meetings are another method that allows faculty to interact with each other. We also have a faculty listserv that allows faculty members to post questions. Faculty are also able to attend our college-wide seminar series, convocations, and social events.

The Department of Epidemiology & Biostatistics holds regular faculty meetings on the first Friday of each month during the spring and fall semesters. The annual department retreat is organized for

discussions on specific topics of education, research, service, and department operation. There are 4-5 department-wide seminars each year for scholarly exchanges. There are standing committees and work groups in the department, including: promotion and tenure committee, teaching evaluation committee, peer review committee, joint and adjunct faculty work group, website work group, inclusion and diversity work group, and training grant work group. Adjunct and joint faculty are invited to join the department activities, including seminars and 1-2 department meetings each year.

The Department of Community, Environment and Policy has full-time and part-time faculty regularly interact with each other at monthly meetings, college and program seminars, and website development. There are collaborative efforts between all faculty and this includes its annual welcome back student social gathering, lab meetings, and after hour events.

The Department of Health Promotion Sciences holds regular meetings that include all level of faculty members. The Department has semi-annual social events for all faculty, staff and students. Department meeting minutes and attendees list are kept in an HPS Box folder "HPS DEPT MEETINGS," which is available to all faculty and staff. All faculty are able to work on Department level initiatives and have been closely involved with the development and implementation of the DrPH program.

The Division of Public Health Practice and Translational Research invites all faculty (fulltime or less than fulltime), including adjunct, lecturers, co-instructors, staff, etc. to monthly division meetings, seminars, internship conferences, division team building sessions, etc. Its monthly meetings are held on the first Friday of the month from 10-11am. It keeps meetings an hour in order to increase participation. At times, it holds a monthly division meeting off campus at the end of day (4-5pm) and have a social hour with food and drink to facilitate and encourage networking among our division faculty, staff and adjunct faculty members. For example, just recently (two months ago), the division meeting was held off campus from 4-5pm and after 5pm had dinner catered as a way of thanking and recognizing everyone's efforts and dedication to our students' learning and contributions to the teaching, research and service mission of the college. Most of the adjunct faculty, lecturers, and co-instructors (online or in-class) have their own full-time jobs, but make every effort to attend the invitations to participate. Also, most adjunct faculty, lecturers, and co-instructors are off campus. The Division polls its faculty and staff every semester to adjust timing of division meetings, again to maximize participation by faculty, staff, co-instructors, and adjuncts. The Division keeps monthly notes of its division meetings that are in a shared file and lists who was present and absent and what was discussed, on a monthly basis. The Division also accommodates adjunct positions with opportunities that may arise for research or service contracts. For example, Dr. John Molina requested routing a sub award for a NIH grant submission by Harvard colleague through the division. He was assisted by Pre-Award staff to complete the documentation. Dr. Doug Campos-Outcalt recently tried to secure a contract from CDC and also requested routing through the Division. Maryell Martinez as the division administrative support staff lends support to all faculty regardless of their classification. Her activities include ordering books, supplies for staff programs and has assisted faculty with updating their syllabi.

The **ERF A1.1** has examples of the minutes, attendee lists, etc. that demonstrates these activities. They include minutes from the following committees and meetings: CEPAS, Collegewide retreats, Dean's Council, Dean's updates, Community Advisory Board, Department meetings, Education Committee, Evaluation Committee, Executive Council, Faculty Assembly, Environment Committee, and the Self-Study Committee.

5. **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

   Not Applicable.

A2. MULTI-PARTNER SCHOOLS

A2. Multi-Partner Schools

(Applicable ONLY if functioning as a "collaborative unit" as defined in CEPH procedures)

Not Applicable

A3. STUDENT ENGAGEMENT

A3. Student Engagement

Students have formal methods to participate in policy making and decision making within the school, and the school engages students as members on decision-making bodies whenever appropriate.

1) Describe student participation in policy making and decision making at the school level, including identification of all student members of school committees over the last three years, and student organizations involved in school governance. Schools should focus this discussion on students in public health degree programs.

Undergraduate, master and doctoral level students have been and are currently members of numerous committees in the college that have policy and decision-making authority. The list of students on committees for the past three years are in **Table A3**. Through their committee participation students vote on a variety of issues. Students tend to be most influential on the student affairs committee, education committee, committee on inclusion and equity, and our college's environment committee. Additionally, through these committee students are able to bring issues to the college's Dean's Council. One example is that student representatives from student affairs addressed the need for a workshop on power and privilege dynamics within academic institutions which resulted in having it incorporated into a college-wide retreat. Another example of how student input has affected the college is that the student representation on our Education Committee was increased to 4 students (representing each degree level: undergraduate, master and doctoral and an online student) compared with one vote previously.

Students also take the lead on our semi-annual internship conference and our annual social justice conference to determine conference themes and invited speakers. Additionally, undergraduate and graduate student ambassadors play a significant role on determining how resources are directed toward recruitment. Student representatives are also present and attend our Executive Council meetings.

Students are also included in department faculty searches. They are members of search committees and all students are able to provide evaluations of presentations by candidates for faculty positions. Students are consulted and provided input whenever we create a new degree program or there is a proposal to develop specific program fees. Student input is provided via surveys and focus groups. Finally, every course in the college conducts a Teaching and Course Evaluation (TCE). These student evaluations are made public. Students also provide input to our college's evaluation by participating in an exit survey and in alumni surveys.

We are fortunate to have a strong Office of Student Services and Alumni Affairs that works with the students and gets feedback via various online surveys and focus groups. Students also are able to provide input directly to advisors and to our Assistant Dean. Although, it is difficult to get online students involved, we do invite them to be committee members (one has even been on our self-study team). Student organizations do play an important role in the college and can help provide a single voice to the faculty and administration on a variety of issues. The Public Health Student Alliance provides input for identifying students to be on college-wide committees, e.g. our evaluation committee and the environment committee.

Table A3. Student Memberships on College Committees (as of Sept 20, 2019)

Committees	Student Memberships 2017-18	Student Memberships 2018-19	Student Memberships 2019-20
STUDENT AFFAIRS	Amber Koslucher- PhD Andrea Martinez- MPH Breanne Lott- PhD El'Gin Avila- PhD Ellen Santos- PhD Emily Walsh- BS Innocent Twesigy- PhD Jordan Senia- MS Katey Redmond- MPH Magdiel Hablia- MPH	Amber Koslucher- PhD Andrea Martinez- MPH Breanne Lott- PhD Emily Cooksey- PhD Ellen Santos- PhD Emily Maass- MPH Helen Schaffer Izzie Jado- BS Innocent Twesigye- PhD Katey Redmond- MPH	Joel Parker Sarah Gruza Gloria Villa Barbosa Kaili Wagoner Hannah Martin Lisa Floran Dexter Gulick Emily Cooksey Mario Trejo

Committees	Student Memberships 2017-18	Student Memberships 2018-19	Student Memberships 2019-20
	Mario Trejo- MPH Robert Clark- DrPH Ryan Reikowsky- DrPH Tim Giblin- MPH Valerie Madera-García- PhD	Krista Romero-Cardenas- MPH Lisa Floren- MPH Magdiel Habila- mPH Mario Trejo- PhD Maria Guadalupe Valdez- MPH Robert Clark- DrPH Sarah Gruza- MPH Tim Cruz- MPH	Magdiel Habila Namoonga Mantina Linda Kimaru Brianna Rooney Laura Mercer Cody Rocha Aimee Worthen Valerie Madera Celina Pargas Mariko Yoshinagu Jonica Wildes Gemma Parra Stephanie Bunch
EDUCATION	Alicia Thompson - DrPH Elgin Avila- PhD Niraly Patel - MPH	Amanda Wilson - PhD Elgin Avila- PhD Mia Carvalho Guimaraes- BS Niraly Patel - MPH	Sandra Goreayeb Gabriela Coronel Magdiel Habila Brianna Rooney Linda Soto Additional Students Invited: Maiya Block Hannah Martin Monica Hernandez Cubias
INCLUSION AND EQUITY	Abby Lohr - DrPH Bryna Koch - DrPH Deanna Lewis - DrPH Elise Lopez - DrPH Erika Nacim- MPH Melissa Quezada- BS Rachel Leih - MPH Rachelle Begay - MPH Ryan Reikowsky- DrPH Shawna Follis- PhD Yoshira Ornelas- PhD	Bryna Koch - DrPH Deanna Lewis - DrPH Jessica Seline- MPH Kyrra Kahler - MPH Melissa Quezada- BS Rachel Leih - MPH	Amanda Hunter Bryna Koch Cody Rocha Dora Valencia Forest Melton Janice Baldwin-Rowe Jennifer Richards Jessica Seline Jhenitza Raygoza Kelly Palmer Kimberly Parra Namoonga Mantina Rachelle Begay Rodrigo Valenzuela Cordova Timothy Cruz New Students: Tanner Mihesuah Veronica Lugo Dexter Gulick Gloria Villa Barbosa Ricardo Montejano Anette Real Arrayga Aiman Arif

Committees	Student Memberships 2017-18	Student Memberships 2018-19	Student Memberships 2019-20
EXECUTIVE COUNCIL	No Executive Council meetings in 2017	Jullisa Sanchez – BS Mario Trejo – PhD Sidney Thigpen – BS Mariah Murray – BS Celine Jessica -- BS	Joel Parker Other TBD
FACULTY SEARCH COMMITTEES	Epidemiology and Biostatistics: Patrick O'Connor -PhD & Mario Trejo -PHD: Division of Public Health Practice & Translational Research: Hana Putnam - MPH	Community, Environment and Policy: Amanda Wilson -PhD	Diego Pina Lopez Magdiel Habila Additional Students are named as Search Committees are needed and initiated.
CEPAS	Rachel Leih	Rachel Leih	Maiya Block Rodrigo Valenzuela Cordova Ricardo Montejano Anette Real Arrayga Linda Kimaru
EVALUATION			Priscilla Nguyen Desiree Anthony
SELF STUDY			Priscilla Nguyen Desiree Anthony

* To address the strategic plans of the University of Arizona and the Arizona Health Sciences, in which Student Success and Student Access are slated as highest priority, two students will be added to the College's Evaluation Committee. They will assist the Evaluation Committee in 1) determining which data are needed, 2) the process for collecting the data, 3) evaluating the data, and 4) reporting the data.

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

A4. AUTONOMY FOR SCHOOLS OF PUBLIC HEALTH

A4. Autonomy for Schools of Public Health

A school of public health operates at the highest level of organizational status and independence available within the university context. If there are other professional schools in the same university (eg, medicine, nursing, law, etc.), the school of public health shall have the same degree of independence accorded to those professional schools. Independence and status are viewed within the context of institutional policies, procedures and practices.

1) Briefly describe the school's reporting lines up to the institution's chief executive officer. The response may refer to the organizational chart provided in the introduction.

The lines of accountability and access to higher-level University officials for MEZCOPH are identical to all other colleges within the University. (Please see UA organizational chart in **ERFA4**)

The Dean of the Mel and Enid Zuckerman College of Public Health is its chief academic and administrative officer. She is responsible for all activities and operations of the college and is the lead representative of MEZCOPH in its interactions with the University community and with external constituents. As the academic leader, the dean is charged with the responsibility of maintaining academic standards in teaching, research, and other services performed by MEZCOPH faculty. Primary responsibilities of the Dean include: providing leadership to faculty in teaching, research and service; promoting excellence in academic and research programs; promoting diversity and setting standards for diversity; shaping the vision of the college; implementing the college's strategic plan; providing leadership in resource acquisition, resource management; facilitating faculty and staff development; and creating a positive environment for learning and growth in the college.

The Dean of MEZCOPH has all the authority and prerogatives accorded to all college deans at the University. She meets regularly with the Senior Vice President for Health Sciences and the other senior University administrators to discuss progress and issues at the College. As with other deans, she formally meets with the President of the University on an annual basis to discuss the state of the College. She sits on the University's Council of Deans, a body composed of the deans of all of the colleges within the University that is chaired by the University Provost and meets monthly during the academic year. She also sits on the UA Health Sciences Intercollegiate Leadership Council, which meets monthly with the University's Senior Vice President for Health Sciences to discuss all aspects of the UA Health Sciences. In addition, she meets monthly with the Senior Vice President for Health Sciences for regular updates and communication.

In summary, the lines of accountability and access to higher-level University officials for the College are identical to all other colleges within the University.

2) Describe the reporting lines and levels of autonomy of other professional schools located in the same institution and identify any differences between the school of public health's reporting lines/level of autonomy and those of other units.

The Senior Vice President for Health Sciences is responsible for the University of Arizona Health Sciences which is home for two UA Colleges of Medicine (Tucson and Phoenix), the UA College of Nursing; the UA College of Pharmacy (Tucson and Phoenix); and the UA Mel and Enid Zuckerman College of Public Health (Tucson and Phoenix). The Senior Vice President for Health Sciences reports directly to the President as do the Provost and Vice Presidents. While the reporting lines for the Health Sciences do not go through the Provost's Office, the five Deans of the Health Sciences participate in the Provost's Deans' Council, which meets monthly.

In summary, The UA Mel and Enid Zuckerman College of Public Health has the same status and level of autonomy and independence afforded to other professional and graduate colleges within the university and the health sciences. The Dean is an administrative equal among Deans at the University. We will continue to promote inter-professional and cross-college collaboration, to support the development of university centers of excellence, and to promote innovative translational research.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable.

A5. DEGREE OFFERINGS IN SCHOOLS OF PUBLIC HEALTH

A5. Degree Offerings in Schools of Public Health

A school of public health offers a professional public health master's degree (eg, MPH) in at least three distinct concentrations (as defined by competencies in Criterion D4) and public health doctoral degree programs (academic or professional) in at least two concentrations (as defined by competencies in Criterion D4). A school may offer more degrees or concentrations at either degree level.

1) **Affirm that the school offers professional public health master's degree concentrations in at least three areas and public health doctoral degree programs of study in at least two areas. Template Intro-1 may be referenced for this purpose.**

   MEZCOPH offers a Bachelor of Science Major in Public Health, 14 MPH concentrations, four MS and PhD programs and 1 DrPH program with two areas of concentration. Please refer to **Template Intro-1** MEZCOPH Degree Programs for the complete list of degrees.

2) **An official catalog or bulletin that lists the degrees offered by the school.**

   The MEZCOPH Curriculum Guides for 2019-2020 and 2020-2021 are the most current official academic catalogs that list and describe the degrees offered by the College. The 2019-20 guide is located on the College's website at: https://publichealth.arizona.edu/graduate-students and is located in the **ERF A5** and the 2020-2021 Curriculum Guide is in **ERF A5.1**.

B1. GUIDING STATEMENTS

B1. Guiding Statements

The school defines a *vision* that describes how the community/world will be different if the school achieves its aims.

The school defines a *mission statement* that identifies what the school will accomplish operationally in its instructional, community engagement and scholarly activities. The mission may also define the school's setting or community and priority population(s).

The school defines *goals* that describe strategies to accomplish the defined mission.

The school defines a statement of *values* that informs stakeholders about its core principles, beliefs and priorities.

1) A one- to three-page document that, at a minimum, presents the school's vision, mission, goals and values.

MEZCOPH has a clearly stated mission, vision, values statement, and goals and objectives. The College's values, mission and vision are driving forces for how MEZCOPH directs its resources and delivers its academic programs, creates research focus areas and supports intramural and extramural training and service. The College's mission and goals and objectives were initially developed by its Executive Council, reviewed and approved by the faculty, and implemented in November 2001. The current mission and goals and objectives were reviewed in 2006, 2009, and 2012. The mission and goals were then incorporated into the College's Strategic Plan for 2013-2020 and aligned with the University's Strategic Plan at that time. The goals and objectives are reviewed and monitored on a semi-annual basis during college-wide meetings. The major administrative committees of the College – Dean's Council, Education Committee, Committee on Inclusion and Equity (CIE), Community Engagement, Practice and Service (CEPAS) Committee, and the Research Advisory Council (RAC) – are responsible for continually reviewing goals and objectives. These major committees have college-wide representation. When revisions in either the mission or the goals are recommended, those recommendations are placed before the faculty and other voting members of MEZCOPH for discussion, feedback and approval.

Further, the mission, vision, goals and objectives are available to the University community, the College's constituents, and to the public, via the College's website, http://www.publichealth.arizona.edu/ . Additionally, they are made available to the public by highlighting them in the College's promotional and recruitment publications and in presentations made by administrative members of the College. Evaluation is a formal, ongoing activity at the College. This ongoing system provides a mechanism for evaluating performance towards achieving current goals and objectives, while at the same time allowing opportunities for exploring improvements and making necessary revisions of the goals and objectives. In addition, the College's strategic planning process provides further review and evaluation by the entire college on a semi-annual basis.

In 2018, the mission was re-evaluated and expanded to state that we are also dedicated to promoting "wellness." This term was in line with our focus on creating studies and research on how to prevent disease which is congruent with the World Health Organization definition of health. The input we received from external constituents who identified that the College should also provide additional studies in areas related to mindfulness. In response to this identified gap, the College has now developed four new undergraduate courses in this area to develop a sub-plan on transformative wellness.

Values:
The Mel & Enid Zuckerman College of Public Health acts with respect and integrity to continuously advance health and well-being for all through knowledge, collaboration, empowerment, advocacy and sustainability. Our core values are: Fairness, Trust, Equity, Social Justice, Excellence, Innovation, Commitment, Collegiality, Diversity, Open Communication, Participation, Consensus and Enhancement. We strive to foster an educational community that values innovation and excellence in teaching, creation and dissemination of knowledge, practice-based research and research-based practice to address the health needs and interests of individuals and communities.

Mission:
The Mel and Enid Zuckerman College of Public Health is dedicated to promoting the health and wellness of individuals and communities in the southwest and globally with an emphasis on achieving health equity through excellence in education, research & service.

Goals
The College has divided its overall goals into the three traditional areas of academia for a land grant institution that provide the overall strategy that will allow us to meet our mission. They are Instruction, Research and Service.

The goals and objectives related to teaching are:

- Recruit and Matriculate an Ethnically, Geographically, Socioeconomically and Academically Diverse and Qualified Student Body
- Educate individuals for successful public health professional, research and academic careers.
- Foster the Success of Our Students
- Provide well trained and qualified course instructors.

The goals for research are:

- Have externally funded grants and contracts that support public health research.
- Have faculty engaged in externally funded research.
- Have a faculty that is actively publishing in academic journals
- Have students actively participate in research project.

The goals for service are:

- Have faculty and academic professionals are involved in community engagement, outreach, practice and service activities
- Have undergraduate public health and MPH student internships that are community-based.
- Provide workforce development/continuing education activities.

The goals for inclusion and equity are:

- Develop and Sustain a Diverse and Robust Academic Community
- Actively maintain a stable, fair and equitable organization that supports the programs, practice and policies of MEZCOPH.
- Stand as a model of equity and inclusion by creating a scholarly community that understands values and respects all individuals so students, faculty and staff can achieve their full potential as public health leaders.

Vision
To have “local impact, national influence, and global reach.”

2) If applicable, a school-specific strategic plan or other comparable document.

Our Strategic Plan for 2013-2020 is in **ERF B1**. It will be going under a revision in 2020-2021 to be compatible with the University’s and the Health Sciences new strategic plan.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable.

B2. GRADUATION RATES

B.2. Graduation Rates

The school collects and analyzes graduation rate data for each public health degree offered (eg, BS, MPH, MS, PhD, DrPH).

The school achieves graduation rates of 70% or greater for bachelor's and master's degrees and 60% or greater for doctoral degrees.

1) Graduation rate data for each degree in unit of accreditation. See Template B2-1.

The following templates indicate the graduation rates for our on campus and online Bachelor of Science Major in Public Health. The student cohort reported on the chart for the on-campus students who were admitted to the major in the listed academic year. The maximum time to graduation after being admitted to the major is four years

The online program Bachelor of Science Major in Public Health began in Fall 2016. The student cohort reported on the chart are students who were admitted to the major in the listed academic year. The maximum time to graduation after being admitted to the major is four years.

Template B2-1.1 Students in on campus BS Major, by Cohorts Entering Between 2015-2016 and 2018-2019

***Maximum Time to Graduate: 4 years**					
	Cohort of Students	2015-2016	2016-2017	2017-2018	2018-2019
2015-2016	# Students entered	201			
	# Students withdrew, dropped, etc.	0			
	# Students graduated	61			
	Cumulative graduation rate	30%			
2016-2017	# Students continuing at beginning of this school year (or # entering for newest cohort)	140	229		
	# Students withdrew, dropped, etc.	1	0		
	# Students graduated	127	74		
	Cumulative graduation rate	94%	32%		
2017-2018	# Students continuing at beginning of this school year (or # entering for newest cohort)	12	155	276	
	# Students withdrew, dropped, etc.	4	0	0	
	# Students graduated	8	128	105	
	Cumulative graduation rate	98%	88%	38%	

2018-2019	# Students continuing at beginning of this school year (or # entering for newest cohort)	2	27	171	211
	# Students withdrew, dropped, etc.	0	7	4	0
	# Students graduated	2	12	135	51
	Cumulative graduation rate	99%	93%	87%	24%
The cohort 2016-2017 and later have additional time to complete their degree. Therefore, we expect the cumulative graduation rates to increase.					

Template B2-1.2 Students in BS Major on the ONLINE campus, by Cohorts Entering Between 2016-2017, 2017-2018, and 2018-2019. Note the program began in Fall 2016

***Maximum Time to Graduate: 4 years**				
	Cohort of Students	2016-2017	2017-2018	2018-2019
2016-2017	# Students continuing at beginning of this school year (or # entering for newest cohort)	4		
	# Students withdrew, dropped, etc.	1		
	# Students graduated	0		
	Cumulative graduation rate	0%		
2017-2018	# Students continuing at beginning of this school year (or # entering for newest cohort)	3	14	
	# Students withdrew, dropped, etc.	0	0	
	# Students graduated	0	0	
	Cumulative graduation rate	0%	0%	
2018-2019	# Students continuing at beginning of this school year (or # entering for newest cohort)	3	14	29
	# Students withdrew, dropped, etc.	1	0	0
	# Students graduated	2	5	0
	Cumulative graduation rate	50%	66.67%	0%
The cohort 2017-2018 and later have additional time to complete their degree. Therefore, we expect the cumulative graduation rates to increase. Per the University of Arizona Graduate College, MPH and MS students have a maximum allowable time to graduation of six years from time of matriculation. The following Templates are for the MPH program, the *Starting cohort numbers do not include those who switched into another program within our college.*				

Template B2-1.3 Students in MPH Degree, by Cohorts Entering Between August 2012 and August 2018								
	Cohort of Students	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
2012-2013	# Students Entered	112						
	# Students withdrew, dropped, etc.	5						
	# Students Graduated	1						
	Cumulative graduation rate	0.89%						
2013-2014	# Students Entered	106	97					
	# Students withdrew, dropped, etc.	2	1					
	# Students Graduated	64	0					
	Cumulative graduation rate	58.04 %	0.00%					
2014-2015	# Students Entered	40	96	115				
	# Students withdrew, dropped, etc.	2	5	1				
	# Students Graduated	20	55	0				
	Cumulative graduation rate	75.89 %	56.70 %	0.00%				
2015-2016	# Students Entered	18	36	114	121			
	# Students withdrew, dropped, etc.	2	3	4	3			
	# Students Graduated	9	22	68	1			
	Cumulative graduation rate	83.93 %	79.38 %	59.13 %	0.83%			
2016-2017	# Students Entered	7	11	42	117	96		
	# Students withdrew, dropped, etc.	1	2	2	2	0		
	# Students Graduated	3	6	26	84	1		
	Cumulative graduation rate	86.61 %	85.57 %	81.74 %	70.25 %	1.04%		
2017-2018	# Students Entered	3	3	14	31	95	95	
	# Students withdrew, dropped, etc.	1	1	2	1	2	1	
	# Students Graduated	2	2	7	20	75	1	
	Cumulative graduation rate	88.39 %	87.63 %	87.83 %	86.78 %	79.17 %	1.05%	
2018-2019	# Students Entered	0	0	5	10	18	93	128
	# Students withdrew, dropped, etc.	0	0	0	0	0	0	2
	# Students Graduated	0	0	2	5	12	48	1
	Cumulative graduation rate	88.39 %	87.63 %	89.57 %	90.91 %	91.67 %	51.58%	0.78%

Starting cohort numbers does not include those who switched into another graduate degree program within our college.
2012-2013 - 3 people changed to MS programs (1 MS BIOS, 1 MS EHS, 1 MS EPI) and thus are counted with those degree's graduation numbers
2014-2015 - 1 person switched to MS BIOS and thus are counted with the MS BIOS graduation numbers; **3 not graduated as of June 2019**
2015-2016 - 3 people switched to MS EHS and PH Certificate and are in those graduation numbers; **5 not graduated as of June 2019**
2016-2017 - **6 not graduated as of June 2019**
2017-2018 - 1 person changed to MS EHS and will be in those graduation numbers; 45 **not graduated as of June 2019**
2018-2019 - **125 not graduated as of June 2019**

Online MPH Program

We admit online MPH students every semester. Thus, the following tables provides graduation rates for each cohort and for the academic year for which students were admitted. Students in this program have a 2-year plan of study but able to have 7 years from the time of admission to graduate.

Template B2-1.4 Online Graduation Rates													
	Cohort of Students	Fall 2015	Spring 2016	Summer 2016	Fall 2016	Spring 2017	Summer 2017	Fall 2017	Spring 2018	Summer 2018	Fall 2018	Spring 2019	Summer 2019
Fall 2015	# Students Entered	42											
	# Students withdrew, dropped, etc.	0											
	# Students Graduated	0											
	Cumulative graduation rate	0.00%											
Spring 2016	# Students Entered	42	30										
	# Students withdrew, dropped, etc.	0	2										
	# Students Graduated	0	0										
	Cumulative graduation rate	0.00%	0.00%										
Summer 2016	# Students Entered	42	28	21									
	# Students withdrew, dropped, etc.	0	0	0									
	# Students Graduated	0	0	0									
	Cumulative graduation rate	0.00%	0.00%	0.00%									
Fall 2016	# Students Entered	42	28	21	77								
	# Students withdrew, dropped, etc.	0	0	0	0								
	# Students Graduated	0	0	0	0								
	Cumulative graduation rate	0.00%	0.00%	0.00%	0.00%								

Spring 2017	# Students Entered	42	28	21	77	45							
	# Students withdrew, dropped, etc.	0	0	0	7	0							
	# Students Graduated	0	0	0	0	0							
	Cumulative graduation rate	0.00%	0.00%	0.00%	0.00%	0.00%							
Summer 2017	# Students Entered	42	28	21	70	45	17						
	# Students withdrew, dropped, etc.	0	0	0	2	0	0						
	# Students Graduated	27	1	0	0	0	0						
	Cumulative graduation rate	64.29%	3.33%	0.00%	0.00%	0.00%	0.00%						
Fall 2017	# Students Entered	15	27	21	68	45	17	68					
	# Students withdrew, dropped, etc.	2	0	0	2	1	2	0					
	# Students Graduated	6	15	0	1	0	0	0					
	Cumulative graduation rate	78.57%	53.33%	0.00%	1.30%	0.00%	0.00%	0.00%					
Spring 2018	# Students Entered	7	12	21	65	44	15	68	55				
	# Students withdrew, dropped, etc.	0	6	3	1	0	1	5	0				
	# Students Graduated	0	1	13	0	2	0	0	0				
	Cumulative graduation rate	78.57%	56.67%	61.90%	1.30%	4.44%	0.00%	0.00%	0.00%				
Summer 2018	# Students Entered	7	5	5	64	42	14	63	55	48			
	# Students withdrew, dropped, etc.	0	0	0	1	0	0	1	1	0			
	# Students Graduated	2	1	2	44	2	0	0	0	0			

	Cumulative graduation rate	83.33%	60.00%	71.43%	58.44%	8.89%	0.00%	0.00%	0.00%	0.00%			
Fall 2018	# Students Entered	5	4	3	19	40	14	62	54	48	49		
	# Students withdrew, dropped, etc.	1	0	1	6	0	1	4	4	5	2		
	# Students Graduated	1	1	1	4	32	0	0	0	0	0		
	Cumulative graduation rate	85.71%	63.33%	76.19%	63.64%	80.00%	0.00%	0.00%	0.00%	0.00%	0.00%		
Spring 2019	# Students Entered	3	3	1	9	8	13	58	50	43	47	34	
	# Students withdrew, dropped, etc.	1	0	0	0	0	1	1	2	3	2	0	
	# Students Graduated	0	0	0	1	3	10	0	0	0	0	0	
	Cumulative graduation rate	85.71%	63.33%	76.19%	64.94%	86.67%	76.92%	0.00%	0.00%	0.00%	0.00%	0.00%	
Summer 2019	# Students Entered	2	3	1	8	5	2	57	48	40	45	34	26
	# Students withdrew, dropped, etc.	1	1	0	0	0	1	0	1	0	0	1	1
	# Students Graduated	0	0	0	0	0	0	0	0	0	0	0	0
	Cumulative graduation rate	85.71%	63.33%	76.19%	64.94%	86.67%	76.92%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
		2015-16: 76.34%			2016-17: 73.38%			2017-18: NA			2018-19: NA		

Starting cohort numbers does not include those who switched into another graduate degree program within our college.
2012-2013 - 3 people changed to MS programs (1 MS BIOS, 1 MS EHS, 1 MS EPI) and thus are counted with those degree's graduation numbers
2014-2015 - 1 person switched to MS BIOS and thus are counted with the MS BIOS graduation numbers; 3 **not graduated as of June 2019**
2015-2016 - 3 people switched to MS EHS and PH Certificate and are in those graduation numbers;
5 not graduated as of June 2019
2016-2017 - **6 not graduated as of June 2019**
2017-2018 - 1 person changed to MS EHS and will be in those graduation numbers; **45 not graduated as of June 2019**
2018-2019 - **125 not graduated as of June 2019**

The following table provide graduation rates for our MS students.

Template B2-1.5 Master of Science Maximum Time to Graduate

MS Students by Cohorts Entering Between August 2012 and August 2018								
	Cohort of Students	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
2012-2013	# Students Entered	7						
	# Students withdrew, dropped, etc.	1						
	# Students Graduated	0						
	Cumulative graduation rate	0.00%						
2013-14	# Students Continuing and Newly Beginning	6	4					
	# Students withdrew, dropped, etc.	0	0					
	# Students Graduated	5	0					
	Cumulative graduation rate	71.43%	0.00%					
2014-15	# Students Continuing and Newly Beginning	1	4	15				
	# Students withdrew, dropped, etc.	0	0	1				
	# Students Graduated	1	1	0				
	Cumulative graduation rate	85.71%	25.00%	0.00%				
2015-16	# Students Continuing and Newly Beginning	0	3	14	5			
	# Students withdrew, dropped, etc.	0	0	0	0			
	# Students Graduated	0	1	8	0			
	Cumulative graduation rate	85.71%	50.00%	53.33%	0.00%			
2016-2017	# Students Continuing and Newly Beginning	0	2	6	5	7		
	# Students withdrew, dropped, etc.	0	0	0	2	0		
	# Students Graduated	0	0	2	2	0		
	Cumulative graduation rate	85.71%	50.00%	66.67%	40.00%	0.00%		
2017-18	# Students Continuing and Newly Beginning	0	2	4	1	7	3	
	# Students withdrew, dropped, etc.	0	0	0	0	0	1	
	# Students Graduated	0	1	2	1	1	0	
	Cumulative graduation rate	85.71%	75.00%	80.00%	60.00%	14.29%	0.00%	
2018-19	# Students Continuing and Newly Beginning	0	1	2	0	6	2	5
	# Students withdrew, dropped, etc.	0	0	1	0	0	0	0
	# Students Graduated	0	1	1	0	3	0	0
	Cumulative graduation rate	85.71%	100.00%	86.67%	60.00%	57.14%	0.00%	0.00%
Summation	# Students Entered	7	4	15	5	7	3	5
	Total Graduates	6	4	13	3	4	0	0
	Total Drops	1	0	2	2	0	1	0
	Total Continuing	0	0	0	0	3	2	5
	% Graduate or Continuing	85.71%	100.00%	86.67%	60.00%	100.00%	66.67%	100.00%

Starting cohort numbers does not include those who switched into another program within our college. See notes below MPH chart above for transfers between MS and MPH programs.
2014-2015 – 1 student began in PhD and transferred to MS, counted in MS cohort.
2016-2017 – 1 student began in PhD and transferred to MS, counted in MS cohort.
Per the University of Arizona Graduate College, doctoral students have a maximum allowable time to graduation of five years from time of successful completion of comprehensive exam. The following table provides the graduation rates for these students.

Template B2-1.6 DrPH Students Maximum Time to Graduate

DrPH Doctoral Students Completing Comprehensive Exams by Academic Year & Completion Rate Within 5 Years								
	Students	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
2012-2013	# Students Passing Comps	6						
	# Students withdrew, dropped, etc.	0						
	# Students Graduated	0						
	Cumulative graduation rate	0.00%						
2013-14	# Students Continuing and Newly Passing Comps	6	2					
	# Students withdrew, dropped, etc.	0	0					
	# Students Graduated	2	0					
	Cumulative graduation rate	33.33%	0.00%					
2014-15	# Students Continuing and Newly Passing Comps	4	2	7				
	# Students withdrew, dropped, etc.	0	0	0				
	# Students Graduated	1	0	0				
	Cumulative graduation rate	50.00%	0.00%	0.00%				
2015-16	# Students Continuing and Newly Passing Comps	3	2	7	8			
	# Students withdrew, dropped, etc.	0	0	0	0			
	# Students Graduated	2	0	2	0			
	Cumulative graduation rate	83.33%	0.00%	28.57%	0.00%			
2016-2017	# Students Continuing and Newly Passing Comps	1	2	5	8	10		
	# Students withdrew, dropped, etc.	0	0	0	0	0		
	# Students Graduated	1	1	1	2	1		
	Cumulative graduation rate	100.00%	50.00%	42.86%	25.00%	10.00%		
2017-18	# Students Continuing and Newly Passing Comps	0	1	4	6	9	9	
	# Students withdrew, dropped, etc.	0	0	0	0	0	0	
	# Students Graduated	0	1	2	3	4	0	
	Cumulative graduation rate	100.00%	100.00%	71.43%	62.50%	50.00%	0.00%	
2018-19	# Students Continuing and Newly Passing Comps	0	0	2	3	5	9	7
	# Students withdrew, dropped, etc.	0	0	1	0	0	0	0
	# Students Graduated	0	0	0	2	3	0	0
	Cumulative graduation rate	100.00%	100.00%	71.43%	87.50%	80.00%	0.00%	0.00%
Summation	# Students Passing Comps	6	2	7	8	10	9	7
	Total Students Graduating, 5 Yrs	6	2	5	7	8	0	0
	Total Drops	0	0	1	0	0	0	0
	Total Continuing	0	0	1	1	2	9	7
	% Graduate or Continuing	100.00%	100.00%	85.71%	100.00%	100.00%	100.00%	100.00%

Template B2-1.7 PhD Students Maximum Time to Graduate

PhD Doctoral Students Completing Comprehensive Exams by Academic Year & Completion Rate Within 5 Years								
	Students	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
2012-2013	# Students Passing Comps	5						
	# Students withdrew, dropped, etc.	0						
	# Students Graduated	0						
	Cumulative graduation rate	0.00%						
2013-14	# Students Continuing and Newly Passing Comps	5	6					
	# Students withdrew, dropped, etc.	0	0					
	# Students Graduated	2	0					
	Cumulative graduation rate	40.00%	0.00%					
2014-15	# Students Continuing and Newly Passing Comps	3	6	8				
	# Students withdrew, dropped, etc.	0	0	0				
	# Students Graduated	0	1	1				
	Cumulative graduation rate	40.00%	16.67%	12.50%				
2015-16	# Students Continuing and Newly Passing Comps	3	5	7	6			
	# Students withdrew, dropped, etc.	0	0	0	0			
	# Students Graduated	2	2	2	0			
	Cumulative graduation rate	80.00%	50.00%	37.50%	0.00%			
2016-2017	# Students Continuing and Newly Passing Comps	1	3	5	6	4		
	# Students withdrew, dropped, etc.	0	1	0	0	0		
	# Students Graduated	0	1	3	3	1		
	Cumulative graduation rate	80.00%	66.67%	75.00%	50.00%	25.00%		
2017-18	# Students Continuing and Newly Passing Comps	1	1	2	3	3	12	
	# Students withdrew, dropped, etc.	0	1	0	0	0	0	
	# Students Graduated	1	0	0	0	2	0	
	Cumulative graduation rate	100.00%	66.67%	75.00%	50.00%	75.00%	0.00%	
2018-19	# Students Continuing and Newly Passing Comps	0	0	2	3	1	12	5
	# Students withdrew, dropped, etc.	0	0	0	0	0	0	0
	# Students Graduated	0	0	0	0	0	2	1
	Cumulative graduation rate	100.00%	66.67%	75.00%	50.00%	75.00%	16.67%	20.00%
Summation	# Students Passing Comps	5	6	8	6	4	12	5
	Total Students Graduating, 5 Yrs	5	4	6	3	3	2	1
	Total Drops	0	2	0	0	0	0	0
	Total Continuing	0	0	2	3	1	10	4
	% Graduate or Continuing	100.00%	66.67%	100.00%	100.00%	100.00%	100.00%	100.00%

Additional graduation rate data are available in the **ERF B2** and include MS and doctoral completion by entering cohort (7 years) and is also disaggregated by program and degree.

2) Data on doctoral student progression in the format of Template B2-2.

Template B2-2: Doctoral Student Data for year 2018/19						
Doctoral Concentration	BIOS PhD	EHS PhD	EPI PhD	HBHP PhD	MCH DrPH	PHPM DrPH
# Newly admitted in 2018/19	4	4	4	3	3	0
# Currently enrolled in 2018/19	16	17	17	16	24	12
# Completed coursework during 2017/18	1	4	4	4	6	6
# In candidacy status during 2017/18	3	4	3	5	8	4
# Graduated in 2017/18	1	0	2	1	4	6

3) Explain the data presented above, including identification of factors contributing to any rates that do not meet this criterion's expectations and plans to address these factors.

All MPH, DrPH and PhD cohorts meet the minimum criterion expectations. Completion rates determined by the University of Arizona's Graduate College are six years maximum from first matriculation for master's level students and five years maximum from successful completion of comprehensive exam for doctoral level students.

All cohorts of the MS degree meet the minimum criterion with the exception of the 2015-16 cohort. With just five new MS students entering that year, the withdrawal of two students resulted in a 60% completion rate. One student left to pursue a PhD in Immunobiology, the other for personal reasons.

We have a strong undergraduate completion rate. We record undergraduate graduation rates for those students who have declared public health as a major. This allows us to include students in our counts from the time when they start the program and not students who have just taken our classes and then declare a different major. This allows us to better monitor the success of students who specifically identified public health as their major.

A strength of our doctoral programs is the flexibility that is provided by the University of Arizona Graduate College which allows doctoral students a 5-year clock to completion that starts after they pass their comprehensive exam. This allows part-time students more time to finish courses. The rational for this time period is that no matter when students take a comprehensive exam after their start of their course work that their knowledge about the topic is current.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable.

B3. POST-GRADUATION OUTCOMES

B3. Post-Graduation Outcomes

The school collects and analyzes data on graduates' employment or enrollment in further education post-graduation, for each public health degree offered (eg, BS, MPH, MS, PhD, DrPH). The school achieves rates of 80% or greater employment or enrollment in further education within the defined time period for each degree.

1) Data on post-graduation outcomes (employment or enrollment in further education) for each degree. See Template B3-1.

Template B3-1 Post-Graduate Outcomes (2018 data are collected in Fall 2019)

BS

	2015		2016		2017	
	#	%	#	%	#	%
Employed	Undergraduate data not required or reported for 2015		115	60.5%	146	61.6%
Unknown			27	14.2%	6	2.5%
Enrolled in Further Study			41	21.6%	57	24.1%
Fellowship, Internship, Residency			1	0.5%	28	11.8%
Not Employed, Seeking			1	0.5%	0	0.0%
Not Employed, Not Seeking			0	0.0%	0	0.0%
Volunteer or Service Program			5	2.6%	0	0.0%
Total			190		237	

MS

	2015		2016		2017	
	#	%	#	%	#	%
Employed	2	66.7%	4	44.4%	1	100.0%
Unknown	0	0.0%	0	0.0%	0	0.0%
Enrolled in Further Study	1	33.3%	5	55.6%	0	0.0%
Fellowship, Internship, Residency	0	0.0%	0	0.0%	0	0.0%
Not Employed, Seeking	0	0.0%	0	0.0%	0	0.0%
Not Employed, Not Seeking	0	0.0%	0	0.0%	0	0.0%
Volunteer or Service Program	0	0.0%	0	0.0%	0	0.0%
Total	3		9		1	

MPH

	2015		2016		2017	
	#	%	#	%	#	%
Employed	60	71.4%	72	71.3%	110	80.3%
Unknown	3	3.6%	4	4.0%	4	2.9%
Enrolled in Further Study	11	13.1%	13	12.9%	18	13.1%
Fellowship, Internship, Residency	9	10.7%	12	11.9%	2	1.5%
Not Employed, Seeking	1	1.2%	0	0.0%	3	2.2%
Not Employed, Not Seeking	0	0.0%	0	0.0%	0	0.0%
Volunteer or Service Program	0	0.0%	0	0.0%	0	0.0%
Total	84		101		137	

DrPH						
	2015		2016		2017	
	#	%	#	%	#	%
Employed	2	100.0%	4	100.0%	6	85.7%
Unknown	0	0.0%	0	0.0%	0	0.0%
Enrolled in Further Study	0	0.0%	0	0.0%	0	0.0%
Fellowship, Internship, Residency	0	0.0%	0	0.0%	1	14.3%
Not Employed, Seeking	0	0.0%	0	0.0%	0	0.0%
Not Employed, Not Seeking	0	0.0%	0	0.0%	0	0.0%
Volunteer or Service Program	0	0.0%	0	0.0%	0	0.0%
Total	2		4		7	
PhD						
	2015		2016		2017	
	#	%	#	%	#	%
Employed	1	100.0%	4	57.1%	7	100.0%
Unknown	0	0.0%	2	28.6%	0	0.0%
Enrolled in Further Study	0	0.0%	0	0.0%	0	0.0%
Fellowship, Internship, Residency	0	0.0%	1	14.3%	0	0.0%
Not Employed, Seeking	0	0.0%	0	0.0%	0	0.0%
Not employed, Not Seeking	0	0.0%	0	0.0%	0	0.0%
Volunteer or Service Program	0	0.0%	0	0.0%	0	0.0%
Total	1		7		7	

2017 Outcome Rates of graduates who are either employed or enrolled in further education, training, or not seeking employment

	MEZCOPH Rate			**Overall Rate of ASPPH Reporting Schools**		
	# of Total Students Employed, further study, etc.	# Students with known outcome	Outcome Rate	# of total students employed, enrolled in further study, etc.	# Students with known outcome	Outcome Rate
BS	162	163	99.4%	3197	3413	93.7%
MS	9	9	100.0%	1209	1253	96.5%
MPH	97	97	100.0%	7911	8228	96.1%
DrPH	4	4	100.0%	193	195	99.0%
PhD	5	5	100.0%	870	883	98.5%

2) Explain the data presented above, including identification of factors contributing to any rates that do not meet this criterion's expectations and plans to address these factors.

Postgraduate outcomes for all five programs of the college are presented in Table B3-1. Data is collected in a variety of ways including via a Graduate Information Sheet collected at the time of graduation, the Alumni Survey (See **ERF B3** for Alumni Survey Questionnaire) completed during the first year following graduation, the University's Career Destination survey, exhaustive review of LinkedIn and Facebook profiles, Google searches and direct contact with alumni via email and telephone.

Each MEZCOPH program achieves and far exceeds the target rate of 80% of graduates who are either employed, enrolled in further studies or not seeking employment. Additionally, the college's Post-Graduate Outcome rates exceed the overall outcome rates of all reporting ASPPH schools and programs.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable.

B4. ALUMNI PERCEPTIONS OF CURRICULAR EFFECTIVENESS

B4. Alumni Perceptions of Curricular Effectiveness

For each public health degree offered, the school collects information on alumni perceptions of their own success in achieving defined competencies and of their ability to apply these competencies in their post-graduation placements.

The school defines qualitative and/or quantitative methods designed to maximize response rates and provide useful information. Data from recent graduates within the last five years are typically most useful, as distal graduates may not have completed the curriculum that is currently offered.

1) Summarize the findings of alumni self-assessment of success in achieving competencies and ability to apply competencies after graduation.

Alumni are asked one-year after graduation how well their academic program prepared them for their current job duties. The overall encompassing question is directly related to the competencies that are included the academic program and the ones that are used in their position. The average scores indicate that students believe the they we well to very well prepared for their workforce.

Table B1. Alumni Perceptions

MEZCOPH alumni are asked to assess the degree to which they felt their academic program prepared them for their current job duties. Using a Likert Scale to rate alumni responses where the ratings of *Poor* = 1; *Somewhat* = 2; *Well* = 3; and *Very Well* = 4, average alumni responses indicate that they generally feel *well* to *very well* prepared for the jobs they have secured.

	Average 2015-2016 Scores	Average 2016-2017 Scores	Average 2017-2018 Scores
Bachelor's	3.2 (n=29)	2.96 (n=50)	3.12 (n=65)
Master's	3.35 (n=17)	3.24 (n=76)	3.14 (n=97)
Doctoral	3.41 (n=5)	3.45 (n=11)	3.2 (n=5)
All Alums	3.3 (n=22)	3.15 (n=137)	3.13 (n=167)

Upon graduation, students are asked to rate how well they believe that they have met their foundational and concentration competencies. **Tables B2-B4** provide the results for the BS, MPH and DrPH foundational competencies respectively. **ERF B3.1** provides more detailed results regarding response and graduates' perceptions for each concentration competency.

As a first analysis with the newest CEPH Foundational Competencies, these results provide a strong baseline. MEZCOPH now has a system in place that provides detailed information on each competency. Having trend data will be important. We can use the current data to have faculty provide emphasis in courses on specific competencies that students feel less competent. Given these results are an initial look without an established anchor, these results do indicate that a very high percentage of students perceived that their education program had them meet or partially the foundational competencies for their degree and more importantly very few believed that they were not competent for a specific competency. It is likely that some felt more competent in some areas than in other areas which may have been influenced by their interest area. In regards to the more detailed information in **ERF B3.1**, the validity of the data at this point for specific concentration competencies are limited due to small sample sizes.

Table B2. Bachelor Graduates' Perception of Foundational Competencies (Spring 2018-Fall 2019)

Undergraduate Competencies	I Feel Very Competent		I Feel Partially Competent		I Do Not Feel Competent	
CEPH GENERAL: the foundations of scientific knowledge, including the biological and life sciences and the concepts of health and disease	160	75.1%	52	24.4%	1	0.5%
CEPH GENERAL: the foundations of social and behavioral sciences	167	78.4%	45	21.1%	1	0.5%
CEPH GENERAL: basic statistics	91	42.7%	97	45.5%	25	16.9%
CEPH GENERAL: the humanities/fine arts	140	65.7%	64	30.0%	9	4.3%
CEPH FOUNDATIONAL: the history and philosophy of public health as well as its core values, concepts and functions across the globe and in society	178	83.6%	33	15.5%	2	0.9%
CEPH FOUNDATIONAL: the basic concepts, methods and tools of public health data collection, use and analysis and why evidence-based approaches are an essential part of public health practice	169	79.3%	44	20.7%	0	0.0%
CEPH FOUNDATIONAL: the concepts of population health, and the basic processes, approaches and interventions that identify and address the major health-related needs and concerns of populations	190	89.2%	23	10.8%	0	0.0%
CEPH FOUNDATIONAL: the underlying science of human health and disease, including opportunities for promoting and protecting health across the life course	186	87.3%	27	12.7%	0	0.0%
CEPH FOUNDATIONAL: the socioeconomic, behavioral, biological, environmental and other factors that impact human health and contribute to health disparities	196	92.0%	17	8.0%	0	0.0%
CEPH FOUNDATIONAL: the fundamental concepts and features of project implementation, including planning, assessment and evaluation	146	68.5%	63	29.6%	4	1.9%

Undergraduate Competencies	I Feel Very Competent		I Feel Partially Competent		I Do Not Feel Competent	
CEPH FOUNDATIONAL: the fundamental characteristics and organizational structures of the US health system as well as the differences between systems in other countries	125	58.7%	80	37.6%	8	3.8%
CEPH FOUNDATIONAL: basic concepts of legal, ethical, economic and regulatory dimensions of health care and public health policy and the roles, influences and responsibilities of the different agencies and branches of government	111	52.1%	96	45.1%	6	2.8%
CEPH FOUNDATIONAL: basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology If the school or program intends to prepare students for a specific credential, the curriculum must also address the areas of instruction required for credential eligibility (eg, CHES).	159	74.6%	51	23.9%	3	1.4%
CEPH COMPETENCY: the ability to communicate public health information, in both oral and written forms, through a variety of media and to diverse audiences	181	85.0%	31	14.6%	1	0.5%
CEPH COMPETENCY: the ability to locate, use, evaluate and synthesize public health information	186	87.3%	25	11.7%	2	0.9%
CEPH CROSS CUTTING: advocacy for protection and promotion of the public's health at all levels of society	181	85.0%	32	15.0%	0	0.0%
CEPH CROSS CUTTING: community dynamics	160	75.1%	51	23.9%	2	0.9%
CEPH CROSS CUTTING: critical thinking and creativity	179	84.0%	32	15.0%	2	0.9%
CEPH CROSS CUTTING: cultural contexts in which public health professionals work	189	88.7%	24	11.3%	0	0.0%
CEPH CROSS CUTTING: ethical decision making as related to self and society	192	90.1%	21	9.9%	0	0.0%

Undergraduate Competencies	I Feel Very Competent		I Feel Partially Competent		I Do Not Feel Competent	
CEPH CROSS CUTTING: independent work and a personal work ethic	194	91.1%	19	8.9%	0	0.0%
CEPH CROSS CUTTING: networking	130	61.0%	69	32.4%	14	6.6%
CEPH CROSS CUTTING: organizational dynamics	163	76.5%	48	22.5%	2	0.9%
CEPH CROSS CUTTING: professionalism	195	91.5%	18	8.5%	0	0.0%
CEPH CROSS CUTTING: research methods	129	60.6%	82	38.5%	2	0.9%
CEPH CROSS CUTTING: systems thinking	137	64.3%	75	35.2%	1	0.5%
CEPH CROSS CUTTING: teamwork and leadership	200	93.9%	13	6.1%	0	0.0%

Table B3. MPH Graduates' Perception of Foundational Competencies (Spring 2018-Fall 2019)

MPH Core Competencies	I Feel Very Competent		I Feel Partially Competent		I Do Not Feel Competent	
Apply epidemiological methods to the breadth of settings and situations in public health practice	92	56.8%	66	40.7%	4	2.5%
Select quantitative and qualitative data collection methods appropriate for a given public health context	116	71.6%	45	27.8%	1	0.6%
Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	59	36.4%	91	56.2%	12	7.4%
Interpret results of data analysis for public health research, policy or practice	122	75.3%	40	24.7%	0	0.0%
Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings	112	69.1%	46	28.4%	4	2.5%
Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels	143	88.3%	18	11.1%	1	0.6%
Assess population needs, assets and capacities that affect community health	134	82.7%	27	16.7%	1	0.6%

MPH Core Competencies	I Feel Very Competent		I Feel Partially Competent		I Do Not Feel Competent	
Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	140	86.4%	21	13.0%	1	0.6%
Design a population-based policy, program, project or intervention	122	75.3%	37	22.8%	3	1.9%
Explain basic principles and tools of budget and resource management	88	54.3%	62	38.3%	12	7.4%
Select methods to evaluate public health programs	113	69.8%	45	27.8%	4	2.5%
Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence	108	66.7%	47	29.0%	7	4.3%
Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	116	71.6%	43	26.5%	3	1.9%
Advocate for political, social or economic policies and programs that will improve health in diverse populations	116	71.6%	41	25.3%	5	3.1%
Evaluate policies for their impact on public health and health equity	119	73.5%	38	23.5%	5	3.1%
Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making	124	76.5%	33	20.4%	5	3.1%
Apply negotiation and mediation skills to address organizational or community challenges	110	67.9%	42	25.9%	10	6.2%
Select communication strategies for different audiences and sectors	140	86.4%	21	13.0%	1	0.6%
Communicate audience-appropriate public health content, both in writing and through oral presentation	145	89.5%	15	9.3%	2	1.2%
Describe the importance of cultural competence in communicating public health content	145	89.5%	16	9.9%	1	0.6%
Perform effectively on interprofessional teams	150	92.6%	12	7.4%	0	0.0%
Apply systems thinking tools to a public health issue	118	72.8%	39	24.1%	5	3.1%

Table B4. DrPH Graduates' Perception of Foundational Competencies (Spring 2018-Fall 2019)*

DrPH Core Competencies	I Feel Very Competent		I Feel Partially Competent		I Do Not Feel Competent	
Explain qualitative, quantitative, mixed methods and policy analysis research and evaluation methods to address health issues at multiple (individual, group, organization, community and population) levels	4	100.0%	0	0.0%	0	0.0%
Design a qualitative, quantitative, mixed methods, policy analysis or evaluation project to address a public health issue	4	100.0%	0	0.0%	0	0.0%
Explain the use and limitations of surveillance systems and national surveys in assessing, monitoring and evaluating policies and programs and to address a population's health	4	100.0%	0	0.0%	0	0.0%
Propose strategies for health improvement and elimination of health inequities by organizing stakeholders, including researchers, practitioners, community leaders and other partners	4	100.0%	0	0.0%	0	0.0%
Communicate public health science to diverse stakeholders, including individuals at all levels of health literacy, for purposes of influencing behavior and policies	4	100.0%	0	0.0%	0	0.0%
Integrate knowledge, approaches, methods, values and potential contributions from multiple professions and systems in addressing public health problems	4	100.0%	0	0.0%	0	0.0%
Create a strategic plan	3	75.0%	1	25.0%	0	0.0%
Facilitate shared decision making through negotiation and consensus-building methods	4	100.0%	0	0.0%	0	0.0%
Create organizational change strategies	4	100.0%	0	0.0%	0	0.0%
Propose strategies to promote inclusion and equity within public health programs, policies and systems	3	75.0%	1	25.0%	0	0.0%
Assess one's own strengths and weaknesses in leadership capacities, including cultural proficiency	3	75.0%	1	25.0%	0	0.0%
Propose human, fiscal and other resources to achieve a strategic goal	3	75.0%	1	25.0%	0	0.0%
Cultivate new resources and revenue streams to achieve a strategic goal	4	100.0%	0	0.0%	0	0.0%
Design a system-level intervention to address a public health issue	4	100.0%	0	0.0%	0	0.0%

DrPH Core Competencies	I Feel Very Competent		I Feel Partially Competent		I Do Not Feel Competent	
Integrate knowledge of cultural values and practices in the design of public health policies and programs	4	100.0%	0	0.0%	0	0.0%
Integrate scientific information, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in policy development and analysis	4	100.0%	0	0.0%	0	0.0%
Propose interprofessional team approaches to improving public health	4	100.0%	0	0.0%	0	0.0%
Assess an audience's knowledge and learning needs	3	75.0%	1	25.0%	0	0.0%
Deliver training or educational experiences that promote learning in academic, organizational or community settings	3	75.0%	1	25.0%	0	0.0%
Use best practice modalities in pedagogical practices	4	100.0%	0	0.0%	0	0.0%

* Only Public Health Policy and Management is represented.

2) Provide full documentation of the methodology and findings from alumni data collection.

Alumni are sent the alumni survey by email at one-year post graduation, allowing time for graduates to obtain positions and settle into jobs and further training. The survey is conducted using Survey Monkey and consists of general questions related to employment type, sector, salary information and debt level. Notices on LinkedIn and Facebook Alumni groups are employed. Non-responders are contacted again by appropriate advising and program faculty.

Table B5. Alumni Response Rates

Degree Program	2015-16	2016-17	2017-18
# of Bachelor Graduates	211	240	247
# of BS Alumni Survey Respondents	71	55	70
BS Alumni's Survey Response Rate	33.6%	22.9%	28.3%
# of Master Graduates	112	152	201
# of Master Alumni Survey Respondents	58	97	97
Masters Alumni's Survey Response Rate	51.8%	63.8%	48.3%
# of Doctoral Graduates	11	11	12
# of Doctoral Alumni Survey Respondents	10	11	6
Doctoral Alumni Survey Response Rate	90.9%	100.0%	50.0%
Total # of Graduates	334	403	460
# of Alumni Survey Respondents	138	163	174
Overall Alumni Survey Response Rate	41.3%	40.4%	37.8%

Despite rigorous efforts to maximize the undergraduate alumni survey response rate, this group of alumni appears to be experiencing survey fatigue. Complaints were received about the number of surveys they get from the University and College. Upon further investigation, it was discovered that the response rate for the alumni survey of the BS graduates conducted by the UA Student Engagement and Career Development Center was more robust than the college's own survey results. This discovery has resulted in ongoing discussions with the Engagement and Career Development Center to either include the College's questions on the University survey or to include the University's question on the Colleges survey. We also recognize that the graduate level response had a decrease for the 2017-18 graduates. We therefore have instituted additional ways to stay in contact with alumni through social media such as LinkedIn.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable.

B5. DEFINING EVALUATION PRACTICES

B5. Defining Evaluation Practices

The school defines appropriate evaluation methods and measures that allow the school to determine its effectiveness in advancing its mission and goals. The evaluation plan is ongoing, systematic and well-documented. The chosen evaluation methods and measures must track the school's progress in 1) advancing the field of public health (addressing instruction, scholarship and service) and 2) promoting student success.

1) Present an evaluation plan that, at a minimum, lists the school's evaluation measures, methods and parties responsible for review. See Template B5-1.

MEZCOPH's ongoing evaluation plan ensures that objectives are continuously monitored and revised. This ongoing system provides a mechanism for evaluating performance towards achieving current objectives, while simultaneously allowing opportunities for exploring improvements to and making appropriate revisions of the objectives.

MEZCOPH's Evaluation Committee was established in fall of 2002 for the purpose of developing a college-wide evaluation plan and to write the Evaluation and Planning section of the original self-study. The roles of this committee are to: 1) Coordinate MEZCOPH evaluation activities, 2) Provide formal feedback to committees generating the goals and objectives to ensure that these goals and objectives provide valuable information, are measurable, and map to the College's mission and strategic plan, 3) Ensure that data are utilized to inform decision making and planning processes, 4) Encourage College-wide involvement in evaluation activities, 5) Ensure that all information required for evaluation, planning and reporting is collected systematically, 6) Streamline MEZCOPH reporting activities where possible, and 7) Ensure that appropriate and efficient data collections systems are in place throughout the College.

At the core of the MEZCOPH evaluation plan are the college's objectives, expected outcomes mapped to the objectives, and strategies to measure the achievement of the expected outcomes.

In 2010, the Dean placed the MEZCOPH Evaluation Committee under the supervision of the Office of the Associate Dean for Research. Currently, the Associate Dean for Research serves as Chair of this committee. Members of the committee include the Director of the Office of Information Technology, the Associate and Assistant Deans, and a representative from the Dean's Office.

Sources of data available to evaluate the college's goals and objectives include:

- Annual Performance Reviews completed by all MEZCOPH appointed personnel, which detail instructional, research and service activities of appointed personnel.
- Records related to all funding sources, financial and hiring activities - tracked and managed by the Office of Financial Affairs and Facilities Management.
- Records on student recruitment and admissions, progress toward degrees, internships, advising, exit surveys, and alumni activities tracked and managed by the Office of Student Services and Alumni Affairs.
- Course evaluations and learning assessments.
- College committee meeting minutes.

Central to having an effective college evaluation process are data collection and data administrators. Data resulting from MEZCOPH measurement strategies listed above are continually collected through a variety of methods throughout the year. MEZCOPH administrators are assigned areas of data reporting responsibility. The responsible administrator and relevant committee (if applicable) record and analyze the data for each outcome to:

- Determine whether the desired outcome was met or if performance gaps exist.
- Identify mitigating factors that may have affected performance.
- Determine strategies for improving performance.
- Suggest changes or additions to objectives.

The data are then submitted to the Evaluation Committee who reviews the data performance and the committee's or administrator's data assessment. The Evaluation Committee provides an objective review of the information presented, and discusses whether:

- The data presented are complete and performance is accurately analyzed and represented.
- Strategies to close gaps are reasonable and achievable.
- Data collection problems exist.
- Changes should be made to the desired outcome of the objective.

The responsible administrator then presents the data and findings to the Dean's Council in person.

In an oversight and directive role, the Dean's Council considers all information presented. The Dean's Council endorses or amends the Evaluation Committee's recommendations and directs the responsible administrator and or committee to make necessary changes in data collection activities or desired outcomes/performance targets. These data inform the college's strategic planning process.

Template B5-1 Evaluation Data

Evaluation Measure	Data Collection Method	Responsibility for Review
Instructional Goal 1: Recruit and Matriculate an Ethnically, Geographically, Socioeconomically and Academically Diverse and Qualified Student Body		
Scope of recruitment activities to reach diverse and qualified prospective students	The Office of Student Services provides this information. The people responsible for collecting this information are our Assistant Dean for Student Services, Chris Tisch and our Director of Admissions, Amy Glicken. Specific data are drawn from our College's and University's database systems by our Data Analyst, Jendar Deschenes on an annual basis. These individuals create and collect the data regarding the MEZCOPH Recruitment Plan that documents college's recruitment activities targeting: • Underserved student populations • Geographically diverse populations • 1st generation students • High academically performing students • Variety of undergraduate majors	Chris Tisch, Assistant Dean for Student Services and Academic Affairs Douglas Taren, Associate Dean for Academic Affairs
Diversity of applied, admitted and students who matriculate	The Office of Student Services provides this information. The people responsible for collecting this information are our Assistant Dean for Student Services, Chris Tisch and our Director of Admissions, Amy Glicken. Specific data is drawn from our College's and University database systems by our Data Analyst, Jendar Deschenes on an annual basis. The data come from the SOPHAS application and admissions data to determine applicants' and students': • Ethnic/racial/underserved backgrounds • Socioeconomic backgrounds • Geographic origins • Undergraduate major fields of study • Incoming GPAs and GRE scores	Chris Tisch, Assistant Dean for Student Services and Academic Affairs Douglas Taren, Associate Dean for Academic Affairs
Instructional Goal 2: Educate Individuals for Successful Public Health Professional, Research and Academic Careers		
Number of experiential/applied learning opportunities of/for students in addition to internships, theses and dissertations.	The Office of Academic Affairs keeps track of the service learning courses. The people responsible for this information are the Associate Dean for Academic Affairs, Douglas Taren and Program Coordinator for this office, Danielle Embry. This information is obtained from program directors and from the list of service learning course offerings, and Student Exit Surveys on an annual basis.	Chris Tisch, Assistant Dean for Student Services and Academic Affairs Douglas Taren, Associate Dean for Academic Affairs
Percent of students who work with community-based programs prior to graduation	The Office of Student Services provides this information. The people responsible for this information are our Assistant Dean for Student Services and our Associate Dean for Community Engagement and Outreach, Cecilia Rosales.	Chris Tisch, Assistant Dean for Student Services and Alumni Affairs

Evaluation Measure	Data Collection Method	Responsibility for Review
	Specific data are drawn from our College's and University database systems by our Data Analyst, Jendar Deschenes. The data are from our Graduating Student Exit Survey on an annual basis.	Douglas Taren, Associate Dean for Academic Affairs Cecilia Rosales, Associate Dean for Community
Percent of MPH students involved with research teams prior to graduation	The Office of Student Services and Office of Research provides this information. The people responsible for this information are our Assistant Dean for Student Services, Chris Tisch and our Associate Dean for Research, Jeff Burgess. Specific data are drawn from our College's and University database systems by our Data Analyst, Jendar Deschenes. The data comes from our Graduating Student Exit Survey and Faculty Annual Progress Report on an annual basis.	Chris Tisch, Assistant Dean for Student Services and Alumni Affairs Douglas Taren, Associate Dean for Academic Affairs Jeff Burgess, Associate Dean for Research
Percent of graduate students' involvement in public health instruction prior to graduation	The Office of Student Services provides this information. The people responsible for collecting this information are our Assistant Dean for Student Services, Chris Tisch and our Data Analyst, Jendar Deschenes. The data comes from our: Graduating Student Exit Survey and our Master list of Teaching Assistants on an annual basis.	Chris Tisch, Assistant Dean for Student Services and Alumni Affairs Douglas Taren, Associate Dean for Academic Affairs
Percent of students who have made professional presentations at conferences, community meetings, poster sessions, campus events, etc.	The Office of Student Services and Office of Research provides this information. The people responsible for this information are our Assistant Dean for Student Services, Chris Tisch and our Associate Dean for Research, Jeff Burgess. Specific data are drawn from our College's and University database systems by our Data Analyst, Jendar Deschenes. The data come from our Graduating Student Exit Survey on an annual basis.	Chris Tisch, Assistant Dean for Student Services and Alumni Affairs Douglas Taren, Associate Dean for Academic Affairs Jeff Burgess, Associate Dean for Research
Percent of students who have authored or co-authored peer reviewed or non-peer reviewed scholarly work	The Office of Student Services and Office of Research provides this information. The people responsible for this information are our Assistant Dean for Student Services, Chris Tisch and our Associate Dean for Research, Jeff Burgess. Specific data are drawn from our College's and University database systems by our Data Analyst, Jendar Deschenes. The data come from our Graduating Student Exit Survey on an annual basis.	Chris Tisch, Assistant Dean for Student Services and Alumni Affairs Douglas Taren, Associate Dean for Academic Affairs Jeff Burgess, Associate Dean for Research
Instructional Goal 3: Foster the Success of our Students		
Ratings of student support provided by the Office of Student Services and Alumni Affairs.	The Office of Student Services provides this information. The people responsible for this information are our Assistant Dean for Student Services, Chris Tisch and our Data Analyst, Jendar Deschenes. The data are from our Graduating Student Exit Survey on an annual basis.	Chris Tisch, Assistant Dean for Student Services and Alumni Affairs Dean's Council
Number of opportunities for students to develop leadership skills through membership/participation on internal and external committees, clubs and events.	The Office of Student Services provides this information. The people responsible for this information are our Assistant Dean for Student Services and our Data Analyst, Jendar Deschenes. The data are from our Student Annual Progress Report, and list of MEZCOPH committee membership on an annual basis.	Chris Tisch, Assistant Dean for Student Services and Alumni Affairs

Evaluation Measure	Data Collection Method	Responsibility for Review
Number of leadership training opportunities	The Office of Student Services and Office of Academic Affairs provides this information. The people responsible for this information are our Assistant Dean for Student Services, Chris Tisch, and our Associate Dean for Academic Affairs, Douglas Taren. They college this information form Course syllabi, lists of workshop offerings and list of additional leadership development events hosted by the college on an annual basis.	Chris Tisch, Assistant Dean for Student Services and Alumni Affairs
Percentage of students who have been awarded assistantships, scholarships, and grants through the college/University	This information is collected by our Assistant Dean for Student Services, Chris Tisch and our Data Analyst, Jendar Deschenes. The information is from our Master list of Teaching Assistants, our College Scholarship Award Data and our Student Annual Progress Report on an annual basis.	Chris Tisch, Assistant Dean for Student Services and Alumni Affairs Education Committee
Instructional Goal 4: Provide Well-Trained and Qualified Course Instructors		
Percent of faculty members who have received training on current teaching techniques and technologies available at the University during the past 2 years.	The Associate Dean for Academic Affairs, Douglas Taren, is responsible for this information. The data are obtained from sign-up lists, Faculty Annual Performance Reviews using UAVITA on an annual basis.	Douglas Taren, Associate Dean for Academic Affairs
Percent of courses that have instructor and course effectiveness scores greater than average of peer courses.	The Associate Dean for Academic Affairs, Douglas Taren, is responsible for this information. The data are obtained from the University Teacher-Course Evaluations (TCEs) on an annual basis.	Douglas Taren, Associate Dean for Academic Affairs
Number of teaching workshops within the college	The Associate Dean for Academic Affairs, Douglas Taren, is responsible for this information. The data are obtained from the Office of Academic Affairs log of activities on an annual basis. This initiative was started at the start of Academic Year 2019-20.	Douglas Taren, Associate Dean for Academic Affairs
Number instructors/courses that were identified as outstanding or needing remediation in response to Peer evaluations.	The Associate Dean for Academic Affairs, Douglas Taren, is responsible for this information. The data are obtained from the Summaries of Peer Evaluations on an annual basis.	Douglas Taren, Associate Dean for Academic Affairs and Department Chairs.

The goals and objectives related to research are:

Evaluation Measure	Data Collection Method For Measure	Responsibility for Review
Research Goal 1: Have externally funded grants and contracts that support public health research.		
Expenditures on externally funded grants & contracts (with MEZCOPH PI) will average at least $250,000 annually per TE/T faculty member.	The Assistant Dean for Finance and Administration, Jing Liu, Collects this information from the University's UACCESS database on an annual basis.	Jing Liu, Assistant Dean for Finance and Administration Jeff Burgess, Associate Dean for Research
Research Goal 2: **Have faculty engaged in externally funded research**.		

Evaluation Measure	Data Collection Method For Measure	Responsibility for Review
Primary faculty (at least half-time) will, on average, be externally funded for at least 30% time for research, training and/or other scholarly activity.	The Assistant Dean for Finance and Administration, Jing Liu, Collects this information from the University's UACCESS database on an annual basis.	Jeff Burgess, Associate Dean for Research
Research Goal 3: Have a faculty that is actively publishing in academic journals		
Tenured and tenure-track faculty will publish on average at least three peer-reviewed articles per year.	The Associate Dean for Research, Jeff Burgess is responsible to collect this information. The data are from annual reviews of faculty CVs on an annual basis.	Jeff Burgess, Associate Dean for Research
Research Goal 4: Have students actively participate in research project		
At graduation, at least two thirds of our MPH students will have participated in a research project (outside of the classroom).	The Office of Student Services and Office of Research provides this information. The people responsible for this information are our Assistant Dean for Student Services, Chris Tisch and our Associate Dean for Research, Jeff Burgess. Specific data are drawn from our Student Exit Survey on an annual basis.	Jeff Burgess, Associate Dean for Research

The goals and objectives related to service are:

Evaluation Measure	Data Collection Method For Measure	Responsibility for Review
Service Goal 1: Have faculty and academic professionals are involved in community engagement, outreach, practice and service activities.		
Ensure that **no fewer than 75% of *faculty and academic professionals*** are involved in ***community engagement, outreach, practice and service activities*** that focus on eliminating health disparities, building/and strengthening collaborations, targeting Healthy People 2020 goals & Public Health Preparedness.	The Associate Dean for Community Engagement and Outreach, Cecilia Rosales is responsible for collecting this information. It is obtained by our Jendar Data Analyst, Jendar Deschenes who pulls the data from the UAVita system on an annual basis.	Cecilia Rosales, Associate Dean for Community Engagement and Outreach
Service Goal 2: Have undergraduate public health and MPH student internships that are community-based.		

Evaluation Measure	Data Collection Method For Measure	Responsibility for Review
Ensure that ***no fewer than 75% of the undergraduate public health* and *MPH student internships*** are ***community-based*** and focused ***on community outreach, practice and service activities*** that emphasize eliminating health disparities, building and strengthening collaborations, targeting AZ Healthy People 2020 goals & Public Health Preparedness.	The Associate Dean for Community Engagement and Outreach, Cecilia Rosales is responsible for collecting this information. It is obtained by our Jendar Data Analyst, Jendar Deschenes who pulls the data from the Student Exit Surveys on an annual basis.	Associate Dean for Community Engagement and Outreach
Service Goal 3: Provide workforce development/continuing education activities.		
Ensure that **no fewer than 40% of faculty, academic and service professionals** are involved in the delivery of ***workforce development/continuing education activities*** to diverse audiences.	The Associate Dean for Community Engagement and Outreach, Cecilia Rosales is responsible for collecting this information. It is obtained by our Jendar Data Analyst, Jendar Deschenes who pulls the data from the UAVita system on an annual basis.	Associate Dean for Community Engagement and Outreach

The goals and objectives for Diversity and Inclusive Excellence are:

Evaluation Measure	Data Collection Method For Measure	Responsibility for Review
Diversity and Inclusive Excellence Goal 1: **Develop and Sustain a Diverse and Robust Academic Community**		
Objective 1.1: 42.5% of undergraduates will be underrepresented minorities (7.5%, 5.0% and 30% for African Americans, Native Americans and Latinx, respectively)	The data are collected by our Data Analyst, Jendar Deschenes and Deanna Lewis, the research specialist for our Committee on Inclusion and Equity (CIE) using the University's UACCESS Database on an annual basis.	Kacey Ernst and Paloma Beamer, Co-Chairs, Committee on Inclusion and Equity
Objective 1.2: 37% of graduate students will be underrepresented minorities (5.0%, 7.0% and 25% for African Americans, Native Americans and Latinx, respectively)	The data are collected by our Data Analyst, Jendar Deschenes and Deanna Lewis, the research specialist for our Committee on Inclusion and Equity (CIE) using the University's UACCESS Database on an annual basis.	Kacey Ernst and Paloma Beamer, Co-Chairs, Committee on Inclusion and Equity
Objective 1.3: 20% of faculty will be underrepresented minorities (3.0%, 2.0% and 15% for African Americans, Native Americans and Latinx, respectively)	The data are collected by our Data Analyst, Jendar Deschenes and Deanna Lewis, the research specialist for our Committee on Inclusion and Equity (CIE) using the University's UACCESS Database on an annual basis.	Kacey Ernst and Paloma Beamer, Co-Chairs, Committee on Inclusion and Equity

Evaluation Measure	Data Collection Method For Measure	Responsibility for Review
Objective 1.4: MEZCOPH will rank as number one across ASPPH schools in the US for Native American undergraduates, graduate students, and faculty.	The data are collected by our Data Analyst, Jendar Deschenes and Deanna Lewis, the research specialist for our Committee on Inclusion and Equity (CIE) using the ASPPH Data Report.	Kacey Ernst and Paloma Beamer, Co-Chairs, Committee on Inclusion and Equity
Objective 1.5: MEZCOPH will rank as number one across ASPPH schools in the continental US for Latinx undergraduates, graduate students, and faculty.	The data are collected by our Data Analyst, Jendar Deschenes and Deanna Lewis, the research specialist for our Committee on Inclusion and Equity (CIE) using the ASPPH Data Report.	Kacey Ernst and Paloma Beamer, Co-Chairs, Committee on Inclusion and Equity
Diversity and Inclusive Excellence Goal 2: Actively maintain a stable, fair and equitable organization that supports the programs, practice and policies of MEZCOPH.		
Objective 2: Shared governance and carried out in accordance with MEZCOPH bylaws through the establishment of the following standing committees: Faculty Assembly, Executive Council and the Committee on Inclusion and Equity (CIE).	The chair of the CIE committee, Paloma Beamer and the Research Specialist for the committee, Deanna Lewis, are responsible for collecting this information. The data come from our college's bylaws and committee minutes that are reviewed by the CIE committee.	Kacey Ernst and Paloma Beamer, Co-Chairs, Committee on Inclusion and Equity
Objective 2.2: Development of CIE subcommittees to support the work of the CIE in the following areas: data and evaluation, professionalism, mission and teaching, research and service.	The chair of the CIE committee, Paloma Beamer and the Research Specialist for the committee, Deanna Lewis, are responsible for collecting this information. The data come from reviewing the CIE minutes.	Kacey Ernst and Paloma Beamer, Co-Chairs, Committee on Inclusion and Equity
Diversity and Inclusive Excellence Goal 3. Stand as a model of equity and inclusion by creating a scholarly community that understands values and respects all individuals so students, faculty and staff can achieve their full potential as public health leaders.		
Objective 3.1: All faculty searches will have documented evidence of efforts to obtain a diverse pool of applicants.	The chair of the CIE committee, Paloma Beamer and the Research Specialist for the committee, Deanna Lewis, are responsible for collecting this information. The data come from a review of Faculty Search Announcements and Committee members.	Kacey Ernst and Paloma Beamer, Co-Chairs, Committee on Inclusion and Equity
Objective 3.2: Continuously review and monitor the diversity of MEZCOPH faculty, appointed and/or administrative personnel and staff.	The chair of the CIE committee, Paloma Beamer and the Research Specialist for the committee, Deanna Lewis, are responsible for collecting this information. The data come from our CIE Minutes.	Kacey Ernst and Paloma Beamer, Co-Chairs, Committee on Inclusion and Equity

2) Briefly describe how the chosen evaluation methods and measures track the school's progress in advancing the field of public health (including instruction, scholarship and service) and promoting student success.

The following MEZCOPH standing committees are responsible for oversight of their corresponding goals and objectives. This includes creating goals and measurable objectives, ensuring the data

needed to measure these goals are available and accurate, and reviewing the data on a yearly basis:

- Instructional Goals = Education Committee
- Research Goals = Research Advisory Committee
- Service Goals = Community Engaged Practice and Service Committee
- Diversity Goals = Committee on Inclusion and Equity

Data on these goals and objectives are presented at semi-annual College wide meetings. The evaluation committee meets annually to examine the data for each of the goals and objectives, determine progress, and provide feedback. Every five years goals and objectives are examined to determine if they are still appropriate or if new goals and objectives are needed. The Evaluation Committee works with the Dean's Council, Education Committee, Research Advisory Committee, the Community Engaged Practice and Service Committee, and the Committee on Inclusion and Equity to revise goals if needed. All revisions must be voted on by the College prior to final approval and implementation of measurement activities.

The MEZCOPH Evaluation Committee is responsible for oversight of the evaluation processes and ensuring that data are utilized to inform decision making and planning processes. The committees listed above review the materials and decide the changes that need to be made after reviewing the data. The Associate Deans are largely responsible for the successful accomplishment of the goals and for using the feedback to enhance the quality of programs and activities. Each Associate Dean has an advisory council to assist in this oversight and implementation and the Dean's Council oversees the organizational goals.

Although we have measures that indicate specific targets, we do not just review if we meet them or not. We use the data to determine if we should be modifying our evaluation goals, eliminating outdated goals. Some specific examples include the changing a goal to have to have a specific target for the percent of students from our four corner states since we now work extensively with WRGP and have a larger student body with greater national recruitment due to SOPHAS and other outreach efforts. We also added new goals based on faculty feedback to develop specific goals for Inclusion and Equity. Below are examples for the main goals.

3) Provide evidence of implementation of the plan described in Template B5-1. Evidence may include reports or data summaries prepared for review, minutes of meetings at which results were discussed, etc. Evidence must document examination of progress and impact on both public health as a field and student success.

The college works within committee structure to develop goals and objectives. These committees work with various college offices to identify the data sources or to create data sources that are used to monitor and evaluate the college's goals and objectives. The data are reviewed and presented back to the committees and at our collegewide retreats that are held twice per year. These results are discussed and recommendations are made regarding changes in policies, procedures, goals and objectives based on the analysis of the data, discussions and by the members of the committees and the college**.** Documentation about recruitment, admissions, how these data were reviewed and decisions made are included in the minutes for our Education Committee. Examples of discussions on goals, objectives and evaluation are from the minutes on: 2/1/17; 3/1/17; 4/5/17; 9/6//17; 11/1/17; 8/1/18; 10/3/18; Finalization of the goals and objectives are made by the committees and presented to the Dean's Council. A flow diagram of this process is provided in **ERF B3.2.**

<u>Instructional Plan</u>

Goal 1. Recruit and Matriculate an Ethnically, Geographically, Socioeconomically and Academically Diverse and Qualified Student Body: Our Director of Admissions provides data on the number of applicants, acceptance and matriculation rates to the Education committee. The education committee reviews these data during the spring semester as we accept students and at the end of each admission cycle. The steps taken ensure our plan to have a diverse student body includes expanding our recruitment efforts, offering a diverse set of areas of study, and evaluating our admissions criteria. We have made changes to our methods to review applicants to have a more holistic approach that puts less

weight on quantitative GPA and GRE scores. Some concentrations have eliminated the GRE for applicants who have extensive public health work experience. (**ERF B4** Admissions Criteria by Program)

Goal 2. Educate Individuals for Successful Public Health Professional, Research and Academic Careers: We continue to track how students are engaged in service and research, including publications via our annual progress reports that are students complete each fall semester. Reports on student authors are also reported by faculty via UAVITAE. This information is reported to the college via emails and at our college-wide retreats. We have expanded the number of service learning courses in our college and the number of courses that include service activities. These courses are provided by each department. (**ERF A1.2**)

Goal 3. Foster the Success of our Students: Our OSSAA provides several workshops each year for students to better prepare them for entering the workforce (See Section H2). Student and alumni surveys are conducted and consistently indicate that students believe they are ready for the workforce.

Goal 4. Provide Well-Trained and Qualified Course Instructors: We have moved to holding more workshops within our college by inviting our University Office of Instruction and Assessment to provide topic specific presentations. We monitor course evaluations and report to the Department Chairs courses with low evaluation scores in order to have instructors take needed steps to improve their teaching or to identify an instructor who is a better fit for the course (See Section E2)

Research Plan:

Goals 1 & 2. (1) Have externally funded grants and contracts that support public health research and (2) Have faculty engaged in externally funded research. We continue to track our grant revenue by department. Additionally, our Research Advisory Committee reviews grants before they are submitted to enhance the probability of faculty obtaining extramural funding. Tenure track junior faculty are also given significant release time at the start of their employment to enhance the start of their research careers. Senior faculty are also encouraged and taking the initiative to support junior faculty as mentors on K-awards or supporting minority supplements. (See Section E4).

Goals 3 & 4. (3) Have a faculty that is actively publishing in academic journals and (4) Have students actively participate in research project: Our College has created writing support sessions that provides faculty a quiet and supportive environment to write. These sessions were created by Dr. Melanie Bell. Additional support groups are also now in place between faculty. We track the number of publications with student authors. Our statistical consulting class, also taught by Dr. Bell, provides an opportunity for students to work on faculty data that can result in publications.

Service Plan

Goal 1. Have faculty and academic professionals are involved in community engagement, outreach, practice and service activities: We implement this plan by tracking faculty engagement using the UAVITA system during annual performance evaluations. Faculty report which activities and research they conduct include community service.

Goal 2. Have undergraduate public health and MPH student internships that are community-based: All internships are tracked for the type of community engagement they include. Student handbooks describe how students select internship sites and activities

Goal 3. Provide workforce development/continuing education activities: We implement this plan by tracking faculty engagement in providing workforce development and supporting continuing education using the UAVITA system during annual performance evaluations. Faculty report which activities and research they conduct include workforce development. Additionally, the college's public health training center actively recruits faculty and students to generate workforce development and continuing education activities.

Diversity and Inclusive Excellence Plan

Goal 1. Develop and Sustain a Diverse and Robust Academic Community: Our College reviews the diversity of its faculty and students through reports (See Section G1) from data collected by the University. We also have conducted our own internal surveys (Section G) and are currently in the process of conducting a comprehensive survey on the college's environment with regards to inclusion and equity that will be conducted by a third party independent of the college.

Goal 2. Actively maintain a stable, fair and equitable organization that supports the programs, practice and policies of MEZCOPH**:** Faculty governance was established when the college was created and is maintained through a committee system. Our by-laws are reviewed and have been revised several times by the voting members of the college (See Bylaws **ERF A1 and ERF A1.a**).

Goal 3. Stand as a model of equity and inclusion by creating a scholarly community that understands values and respects all individuals so students, faculty and staff can achieve their full potential as public health leaders: MEZCOPH has developed many procedures to support an equitable scholarly community. We utilize a standard statement regarding diversity and equity when posting positions and request that applicants for faculty positions state their approach to supporting inclusion and equity. MEZCOPH was also the first college at the university to complete an inclusive excellence inventory that was requested by the President's Office on Inclusion and Equity. From this inventory, we created a strategic plan that covers six content areas: 1) Structure, 2) Governance and Leadership, 3) Environment and Climate, 4) Instruction- Classroom and Content, 5) Faculty and Staff, and 6) Assessment. (See Section G1)

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

B6. USE OF EVALUATION DATA

B6. Use of Evaluation Data

The school engages in regular, substantive review of all evaluation findings, as well as strategic discussions about the implications of evaluation findings.

The school implements an explicit process for translating evaluation findings into programmatic plans and changes and provides evidence of changes implemented based on evaluation findings.

1) Provide two to four specific examples of programmatic changes undertaken in the last three years based on evaluation results. For each example, describe the specific evaluation finding and the groups or individuals responsible for determining the planned change, as well as identifying the change itself.

Activities to Monitor and Improve Classroom Teaching

Instructional Goal 4 was established to maintain a high quality of instruction within the classes. The Office of Academic Affairs did not have a standard method for monitoring how many faculty members were participating in activities that kept them up-to-date regarding online teaching, the use of new technologies and new approaches to teaching and learning. Thus, the College started to have a set of workshops to ensure that faculty stay current on various issues related to pedagogy. These workshops have now focused on team teaching, group projects and teaching in collaborative learning rooms. Additional training on pedagogy has always been available through the UA Office of Instruction and Assessment (OIA). However, given the review of teaching course evaluations and feedback from advisors in the Office of Student Services and Academic Affairs, it was decided that we would need provide these workshops in house and have them specifically for the MEZCOPH faculty.

Our data show that very few courses have low teaching effectiveness scores (3%), low course ratings (less than 3 on a 1-5 scale). The Office of Academic Affairs now sends the list of courses with low scores to the Department Chairs so they may have a discussion with the instructors of these courses to determine the reasons for the low scores and potential ways to increase the scores.

Peer Evaluations of Proposal before Submission

Research Goal 1.2 states that primary faculty (at least half-time) will, on average, be externally funded for at least 30% time for research, training and/or other scholarly activity. While we were meeting this criterion in fiscal years 2015 and 2016, there was room for increasing external funding and also concern that the external funding environment was becoming more competitive. Therefore, the Associate Dean for Research collected MEZCOPH faculty input for potential mechanisms to increase external funding. One concept that was well received by the Dean's Council was to focus on assisting faculty in developing more competitive proposals through early review of specific aims pages for first submissions and also review of scored but not funded grant proposals for resubmission. The Associate Dean for Research therefore refocused the Research Advisory Committee (RAC) starting in March of 2017 to provide these services to our faculty, in addition to continuing to provide general overview of our college research support programs. The reengineered RAC has been successful in helping to increase our average percent of external funded salary for our primary faculty from 30% in fiscal year 2017 to 32% in fiscal year 2017 and 37% in fiscal year 2018.

Position to Support an Academic Health Department and Increase Community Collaboration

Service goal number 3 is focused on faculty participation in workforce development. Based on continuing evaluation of outcome data from UAVitae in regards to this goal, it became clear that faculty involvement with our local health department could benefit from a greater degree of organization. Therefore, the Community Engagement and Outreach team approached Pima County Health Department (PCHD) leadership about establishing a formal agreement to better coordinate and develop an infrastructure that would support stronger and more effective coordination and collaboration.

In order to support the goals and objectives to increase our collaboration with health departments, the College created a position to coordinate these efforts. The position has already advanced our efforts on several fronts. As of July 2019, we have mutually agreed to sign a Memorandum of Understanding with PCHD that includes a formal mechanism for identifying student internships, a Mini Public Health School, and Research Fellowship. The student internships coordinate PCHD staff, student and MEZCOPH faculty to collaborate on specific projects and deliverables. At the end of the student projects, PCHD and MEZCOPH organize an internship conference at the county facility, whereby, staff are invited to participate. The Mini Public Health School encompasses an interactive lecture series designed to share research conducted by MEZCOPH faculty and presented to PCHD staff and leadership. The Research Fellowship was of great interest to PCHD staff and leadership and matches MEZCOPH faculty research interests with PCHD staff. Staff are afforded opportunities to shadow and collaborate on research projects, grant writing, guest lecturing among other activities, mutually agreed upon. Similarly, we are creating an academic health department with the Maricopa County Public Health Department, Arizona's largest county health department that includes the City of Phoenix.

Increase Online Recruitment Efforts

Instructional Goal 1 was developed to recruit and matriculate a diverse and qualified student body. Evaluation of this goal includes reviewing and improving the College's Recruitment Plan each year. In reviewing our recruitment of underrepresented student groups, geographically diverse students, and working professionals, we identified the need to expand our virtual recruitment efforts at the graduate level. In addition, our New Students Survey showed that very few students were recruited via in person graduate fairs. Based on this data, our Office of Student Services and Alumni Affairs now leads or participates in the following innovative virtual efforts:

- Online Information Sessions are 1.5-hour live webinars that are offered monthly by the Director of Admissions, Phoenix Coordinator, and Certificate and MS/Doctoral Coordinator. Topics include the highlights of the College of Public Health, graduate degree offerings and curriculum, admissions requirements, the application process, tuition, and financial assistance for all prospective MPH, Online MPH, MS, PhD, DrPH, graduate certificate, and non-degree seeking students. Ample time is given for questions.
- Virtual Visit Week is a week-long event held during the first week of April every year. This event includes 45-minute sessions presented by each Program Director, as well as sessions by graduate students, leaders of service learning, and the Office of Student Services. Each session begins with a 15-20-minute presentation, followed by a question and answer session. Sessions are recorded and shared with those who register for the event.
- Virtual This Is Public Health Fairs are sponsored by ASPPH and are offered quarterly. These fairs, as well as other virtual fairs we participate in (Veterans Virtual Fair, Diversity Virtual Fair, etc.), give us the opportunity to chat online with prospective students.

All of these virtual events are advertised via the SOPHAS Events webpage, the MEZCOPH website, social media, MailChimp announcements to our prospect list, and to advisors across the UA campus and nationally. These events have been invaluable in increasing our reach to regional, national, and international prospective students.

Change in GRE Requirements

Instructional Goal 1 was developed to recruit and matriculate a diverse and qualified student body. The evaluation data includes reviewing admissions data around incoming GPA and GRE scores. In 2016, the Director of Admissions worked with two graduate students in BIOS 576C Applied Biostatistics Analysis to look at predicting success in public health graduate programs, based on admissions data for incoming graduate students (GPAs including cumulative, lower division, upper division, math/statistics, science, social science, and graduate; GRE scores; and 1st generation college student status) and outcomes in graduate school (narrowly defined as final graduate GPA and whether a student completed a graduate program in a timely manner). Their analysis showed that the upper division GPA had the strongest association with final graduate level GPA for most graduate programs. Based on this data, we made two major changes to our admissions process. We anticipate that these changes will allow us to rely less on standardized test scores and more on a holistic admissions review. These changes are:

- In 2017, we implemented holistic admissions processes. Although many of our faculty believed in the tenets of holistic admissions, until seeing this data, some programs continued to use minimum cut-off points for GRE scores. We now utilize a set of holistic admissions guidelines that are shared with faculty when they begin reviewing applications and are discussed at the beginning of each admissions committee meeting. These guidelines state that all applications are reviewed; all facets of an application are reviewed; programs list competitive GRE levels, but not minimum cut-offs; and that applicants with low GPAs or low GREs are encouraged to write about the obstacles they have faced in their application.
- In 2018 and 2019, the Director of Admissions led a series of a discussions with the academic programs around the predictive value of GRE scores, using internal and external data. As a result of these discussions, starting in fall 2020, the GRE requirement will be waived for all MPH applicants who meet one or more of the following criteria: prior master's degree from a U.S. institution, prior doctoral degree from a U.S. institution, international medical graduates who are ECFMG certified, five or more years of relevant work experience, or completed a graduate certificate from MEZCOPH with a 3.5 GPA or higher.

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

C1. FISCAL RESOURCES

C1. Fiscal Resources

The school has financial resources adequate to fulfill its stated mission and goals. Financial support is adequate to sustain all core functions, including offering coursework and other elements necessary to support the full array of degrees and ongoing operations.

1) Describe the school's budget processes, including all sources of funding. This description addresses the following, as applicable:

In the past 5 years, MEZCOPH has continued to increase its financial resources to fulfill our mission and goals. This increase was made possible through building strong and innovative academic and research programs and providing solid support system to students and faculty. The implementation of Responsibility Centered Management (RCM) also had a very positive impact on both courses offered and the tuition received. RCM is based on a cost and benefit relationship through which teaching effort is recognized via an increased tuition allocation. As Template C1-1 shows, the State appropriation, which represents base tuition revenue, received by MEZCOPH increased from $6.8 million in FY2015 to $10.3 million in FY2019. This means the College has been developing and offering new courses welcomed by students.

MEZCOPH has developed online degree programs in the past 3 to 4 years. The biggest growth came from the online MPH program which currently (Summer 2019) has 259 students enrolled. This program, started in FY2016, earned a gross revenue of over $5 million in FY2019. The online platform allowed the education in public health to be more flexible and assessable to a wide range of populations. The additional financial resources created are used to support new course development, hire quality instructors, and improve the College's educational infrastructure.

The College's Phoenix campus is growing rapidly and is now poised to expand its academic, research, and outreach programs in Phoenix metropolitan area and beyond. In addition to the College's investment in new faculty hiring for our Phoenix campus, UAHS has assigned MEZCOPH Phoenix campus more than 7,000 square feet of additional space to support program growth and shared student space. The Phoenix program currently operates on an annual budget of more than $1 million with support from the College, grants and contracts, and other University resources.

UA's Provost Office and Health Sciences provide support in faculty hiring in salaries and startup packages. In the past couple of years, the College received one third salary support for 3 years for 6 faculty and 3 postdoc hires. In many cases, UAHS and Vice President for Research (VPR) provided one third of the startup packages to T and TE faculty hires. Other internal funding opportunities described earlier also provided additional financial resources to the College.

Opportunities for new resources continue to present themselves through the hard work of our administrators and faculty. For example, the College is taking the lead in several strategic initiatives as part of the University's overall strategic plans. The initiatives, when selected for funding by the University, will be awarded financial resources to grow either new programs or establish research centers within the College or as a collaboration with other units.

To support these processes, MEZCOPH completes an annual all-funds budget in spring as part of the University wide planning process. This is a multi-step process that involves the following:

- review the past revenues and expenses for trending analysis;
- project student enrollment and credit hours;
- forecast revenues from all sources;
- plan new hires of faculty and postdoc;
- review salary and other commitments;
- plan strategic investments for programs and other initiatives;
- project expenses in all operational categories; and
- review current and projected fund balance for reasonability and sustainability.

The College utilizes funding sources from allocated tuition revenue, differential tuition and program fees, online program tuition, grants and contracts, indirect cost allocations, other designated funds, gifts, interest from endowments, and other restricted revenue to support annual operational needs (e.g. personnel, employee related expenses, operational/travel needs, capital equipment, student support, etc.).

As shown by Template C1-1, in the past couple of years, the College's revenue has consistently exceeded the expenses. The financial resources are adequate to fulfill our mission and goals.

State Appropriations

The University of Arizona implemented Responsibility Centered Management (RCM) as of FY2016. The state appropriations represent the amount of tuition dollars allocated to each college based on the number of credits taken and the number of students whose majors are affiliated with each college. Under the RCM, colleges are funded more appropriately based on the teaching effort and ability to attract students with innovative courses and strong student support systems.

Since the implementation of RCM, the amount of tuition allocated to MEZCOPH has increased steadily from $6.8 million in FY2015 to $10.3 million in FY2019. This is the result of increased teaching effort, new courses, innovative programs, and strong support to students.

Program Fees and Differential Tuition

Differential tuition or program fees are applied to all graduate and undergraduate academic programs in the MEZCOPH as follows:

- BS in Public Health: $50 per unit
- MPH, MS, PhD, and DrPH: $75 per unit
- ACTR (UA Clinical & Translational Research), GHD (Global Health and Development), and HA (Health Administration) Graduate Certificate Programs: $250 per unit
- MD- Public Health Certificate – Phoenix: $600 per semester regardless of units taken

In FY2019, the College received $630,000 in program fees and differential tuition after 12.38% of central support tax, 3.5% central investment tax, and 14% tuition set-aside for scholarship.

Online Program Tuition

MEZCOPH has been collaborating with Pearson Embanet in the past three years in delivering the online MPH program. The number of students enrolled have increased steadily. The tuition revenue after the Pearson service fee, increased from $350K in FY2016 to $2.8 million in FY2019. FY2019 net revenue after all expenses was $1.2 million.

Grants and Contracts

Research and service grants and contracts comprise 50% of the College's total budget and support on average 30% of the faculty salary. Funding includes federal sources such as NIH, FEMA, CDC, and EPA; state/local sources such as Arizona Department of Health Services, City of Tucson, and Pima County; and private sources such as Mariposa Community health Center and Water Quality Association. Even when faced with a national trend of shrinking federal funding for research, the College was able to maintain a total grant revenue of $15 million per year in the past 4 years.

Indirect Cost Recovery

The current federally negotiated on-campus indirect rates are as follows:

- organized research: 53.5%
- instruction: 50%
- other sponsored activity: 47%
- Off campus projects:26%

The University of Arizona's indirect cost (IDC) revenue distribution practice is to return 25% of the total revenue received to each college generated those revenues. The College receives about $800K indirect cost revenue each year. MEZCOPH has a long-standing practice to share a portion of the indirect cost revenue with faculty researchers. Faculty researchers receive 12.5% of the total

indirect cost revenue received by the College on a quarterly basis. Departments also receive indirect cost revenue allocation annually. These funds are used at the discretion of the researchers or department heads according to the University policies and procedures.

Other Designated or Restricted Revenue

Other Designated Revenue primarily consists fixed price complete contract revenue and awards generated through the institution for student, faculty or college related activities. Some research projects are also funded from Other Restricted Revenue sources such as Technology Research Initiative Fund (TRIF), the Arizona Area Health Education Center (AzAHEC), etc. These revenue sources are reported under the University Funds in Template C1-1.

Restricted Gifts and Endowments

MEZCOPH works with the University of Arizona Foundation (UAF), which is the formal channel for private gifts to the University. The College currently maintains a fund balance of over $2.6 million in restricted gifts and $13 million in endowed gifts. Student scholarships continue to maintain a primary funding focus via annual fundraising activities. FY2019 student scholarships paid from gifts and interests generated by the endowed funds totaled approximately $400,000. In addition, the College is focusing fundraising activities in academic programming. In January 2019, the Zuckerman Family Foundation pledged a two-million-dollar gift with half going towards scholarship and half for academic programs. Additional gifts from other donors are being received as matching funds to the Zuckerman gift challenge.

a) Briefly describe how the school pays for faculty salaries. If this varies by individual or appointment type, indicate this and provide examples.

MEZCOPH has a long-standing policy of promoting both teaching and research, as well as service to the University and community. Faculty are compensated based on the efforts in these three components.

The average teaching load for the tenured or tenure-eligible (T & TE) faculty is 3 courses each year including student advising effort. Teaching and service effort generally comprise 51% of effort and is funded by the RCM allocated tuition and other tuition and fees. New T & TE faculty are supported 100% for 2 to 3 years and are expected to support 49% of their salaries through grants and contracts or performing additional duties by the end of this startup period. The College reserves a pool of fund to bridge faculty members when a justified need arises.

Career track faculty is funded through teaching, research, and other types of funding. Lecturers are funded mainly through teaching. The effort for teaching a 3-unit course is 10% FTE per fiscal year, same as that of the T & TE faculty. This 10% annualized effort is equivalent to 34.5% effort during a

semester. For all faculty, the student mentoring and advising effort ranges from 5% to 10% FTE per fiscal year depending on the number of master and doctoral students.

Part-time instructors are funded by the number of courses taught. The compensation level varies based on the different programs where the courses are housed. For example, teaching an on-campus 3-unit course is $5,000 and leading and teaching an online program course is $6,000.

b) Briefly describe how the school requests and/or obtains additional faculty or staff (additional = not replacements for individuals who left). If multiple models are possible, indicate this and provide examples.

The need for additional faculty or staff normally starts with discussion between the Department Heads and the Dean. This usually happens when additional courses are added, or new programs are to be initiated. The requests are then presented to the Dean's Council for consideration of funding and evaluated if the position aligns with the College's mission and priorities. The finalized faculty and postdoc positions are included in the annual hiring plan and presented to the Senior Vice President for UA's Health Sciences (UAHS).

c) Describe how the school funds the following:

a. Operational costs (schools define "operational" in their own contexts; definition must be included in response)

Operational costs are defined as any non-personnel costs such as supplies, travel, equipment, and other professional services, etc. Operational costs can be funded from various funding sources. The College's and Departments' administrative operational costs are usually funded by tuition and indirect cost revenues. Operational costs for a specific project or program could be funded by tuition revenues, indirect costs revenues, other University funding, or gift funds. The operational costs for sponsored projects are generally funded by the sponsored funding except certain costs such as office supplies that are generally considered as indirect costs.

b. Student support, including scholarships, support for student conference travel, support for student activities, etc.

The University of Arizona provides centralized student financial aid support where extensive categories of scholarships are available for students to apply. The Graduate College provides several aid programs such as the University Fellowship which allows the College to give out awards from this allocated pool of funds. In addition, the Graduate College provides a pool of fund for tuition waiver for graduate assistants, University Fellows, and students enrolled in the Graduate Interdisciplinary Programs (GIDP).

At the College level, student support such as scholarships or tuition waiver is funded by gifts and tuition set-aside dollars. Grants and contracts may also provide tuition waiver to graduate assistants. Total scholarships provided in the past couple of years have increased from $450,000 in FY2015 to $770,000 in FY2019. The amount of tuition waiver provided increased from $222,000 in FY2015 to $627,000 in FY2019.

Support for student travel or other activities may come from tuition set-aside, gifts, other University funds, UA's internal grants, and gift funds. For example, MEZCOPH established a Dean's Annual Fund Award that supports a variety of scholarly activities including student and faculty seed grants, scholarships, internships, student and faculty travels, lecture series, and community programs.

c. Faculty development expenses, including travel support. If this varies by individual or appointment type, indicate this and provide examples

Faculty development is funded by both the College and the Departments regardless of the appointment type. New T&TE faculty generally are provided with 2 to 3 years of research and development funding as the startup package. For all faculty who participate in research, as described earlier in this Section, 12.5% of the IDC revenue received by the College is distributed to the faculty on a quarterly basis. Faculty can use this fund for research and travel purposes.

Other sources supporting faculty development include the Dean's Annual Fund Award and faculty mini grants. The University also provides internal awards to support faculty research and travel. Additional information about the University and other funding sources are described in the Section d) below.

d) In general terms, describe how the school requests and/or obtains additional funds for operational costs, student support and faculty development expenses.

The University generally does not provide additional dollar for college operational costs during the year after the annual tuition allocation is distributed via RCM in early fall. On the other hand,

there are several mechanisms available during the year to request funding for new faculty hire and new program startup:

- The Strategic Priorities Faculty Initiative (SPFI) provides temporary University financial support to academic departments to make additional full-time, tenure-track faculty or continuing-eligible academic professionals who will enhance the University's distinctive strengths in advancing Inclusive Excellence via equal opportunity, diversity, and inclusion. This funding opportunity normally funds one third of the faculty salary for 2 to 3 years.
- The Provost Investment Fund (PIF) provides funding to mission-driven requests from across campus. This funding opportunity calls for proposal twice a year and funds projects ranging from curriculum development to building construction.
- Senior Vice President for Research provides many internal funding opportunities such as Faculty Seed Grants, Equipment Enhancement Fund, Postdoctoral Research Development Fund, and Student Team Awards.
- Other University internal funding opportunities offered by various programs funded by grants and gifts.

e) Explain how tuition and fees paid by students are returned to the school. If the school receives a share rather than the full amount, explain, in general terms, how the share returned is determined. If the school's funding is allocated in a way that does not bear a relationship to tuition and fees generated, indicate this and explain.

As explained earlier, the University implemented RCM since FY2016. The tuition and fees paid are returned to each college via a cost allocation method through the RCM model. The general allocation rules are:

- Undergraduate tuition: 75% of the tuitions are allocated via Student Credit Hour (SCH) taught by each college based on the instructor's source of salaries; 25% of the tuitions are returned to the colleges house the major of the students.
- Graduate tuition: 25% of the tuitions are allocated via Student Credit Hour (SCH) taught by each college based on the instructor's source of salaries; 75% of the tuitions are returned to the colleges house the major of the students.

Central support costs are deducted as follows:

- Undergraduate tuition: 30.96% assessment for support costs, 2.75% to 5% for Strategic Investment Fund
- Graduate tuition: 17% Regent set-aside, 12.38% assessment for support costs, 2.75% to 5% for Strategic Investment Fund
- Program fees and differential tuition (PFDT): 14% Regent set-aside, 12.38% assessment for support costs, 2.75% to 5% for Strategic Investment Fund
- Indirect costs: 75% retained by the University to cover central support cost and facilities related costs

f) Explain how indirect costs associated with grants and contracts are returned to the school and/or individual faculty members. If the school and its faculty do not receive funding through this mechanism, explain.

As explained earlier, 25% of indirect costs are returned to the College. 12.5% of the total indirect cost revenue returned to the College is allocated to faculty members whose grants earned the revenue.

2) A clearly formulated school budget statement in the format of Template C1-1, showing sources of all available funds and expenditures by major categories, for the last five years.

Template C1-1

Sources of Funds and Expenditures by Major Category: July 1, 2014 to June 30, 2019					
	FY2015	FY2016	FY2017	FY2018	FY2019
Source of Funds					
Tuition & Fees[1]	1,448,769.16	2,191,731.14	3,582,505.71	5,145,282.79	5,786,017.15
State Appropriation[2]	6,809,416.00	8,095,506.00	9,094,766.00	10,085,830.00	10,278,462.00
University Funds	1,775,375.08	1,736,764.52	1,705,380.05	1,592,135.25	690,497.27
Grants/Contracts	12,542,607.52	14,701,783.27	15,810,355.62	14,288,858.58	15,130,821.36
Indirect Cost Recovery	652,727.72	717,094.44	816,626.89	766,086.20	782,045.51
Gifts	799,842.55	1,089,389.44	948,952.42	1,095,344.08	936,318.23
Total	**24,028,738.03**	**28,532,268.81**	**31,958,586.69**	**32,973,536.90**	**33,604,161.52**
Expenditures					
Faculty Salaries & Benefits	7,549,241.32	8,049,262.76	8,823,150.08	8,441,016.75	9,020,915.62
Staff Salaries & Benefits	8,777,316.87	9,402,475.60	10,118,349.89	10,128,849.42	10,616,150.95
Operations	3,701,306.24	5,183,732.39	6,147,110.96	6,487,338.31	6,492,684.70
Travel	434,039.80	427,138.12	478,222.18	408,165.94	412,572.84
Student Support	452,424.64	477,577.50	524,862.19	541,168.77	769,694.22
University Tax[3]	2,451,081.08	2,798,209.12	3,017,715.84	2,756,639.49	2,913,068.17
Transfer of Funds[4]	115,688.32	118,841.96	131,893.01	146,940.93	141,240.27
Total	**23,481,098.27**	**26,457,237.45**	**29,241,304.15**	**28,910,119.61**	**30,366,326.77**
Endowment Balance[5]	12,659,556.43	12,838,920.09	12,908,804.03	12,915,571.03	13,423,391.00

Notes:

1. Tuition & Fees include program fees and differential tuitions, online program tuitions, summer program tuitions, and global program tuitions.
2. State Appropriation is allocated based on the RCM model, therefore represents the on-campus program base tuition revenue.
3. University Tax includes both indirect cost expenses and other centrally assessed administrative taxes.
4. Transfer of Funds: Amounts entered include only transfers from MEZCOPH to other colleges or units to support programs or fulfill commitments.
5. Endowment is not expendable, therefore is taken out of the Source. Instead, the balance of the Endowment fund is presented.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

C2. FACULTY RESOURCES

C2. Faculty Resources

The school has adequate faculty, including primary instructional faculty and non-primary instructional faculty, to fulfill its stated mission and goals. This support is adequate to sustain all core functions, including offering coursework and advising students. The stability of resources is a factor in evaluating resource adequacy.

Students' access to a range of intellectual perspectives and to breadth of thought in their chosen fields of study is an important component of quality, as is faculty access to colleagues with shared interests and expertise.

All identified faculty must have regular instructional responsibility in the area. Individuals who perform research in a given area but do not have some regular expectations for instruction cannot serve as one of the three to five listed members.

1) **A table demonstrating the adequacy of the school's instructional faculty resources in the format of Template C2-1.**

Template C2-1						
Completed 09/10/2019	First Degree Level			Second Degree Level	Third Level	Additional Faculty
CONCENTRATION	PIF 1	PIF 2	PIF 3	PIF 4	PIF 5	
Health Behavior Health Promotion MPH, MS, PhD	Dr. Carvajal	Dr. Garcia	Dr. Yuan	Dr. Thomson		PIF: 10 Non-PIF: 9
Health Promotion (online) MPH	Dr. Willis	Dr. Haynes	Dr. Garcia			PIF: 3 Non-PIF: 0
Family and Child Health - Maternal & Child Health	Dr. Nuno	Dr. Taren	Dr. Koss	Dr. L Gerald		PIF: 7 Non-PIF: 4
MPH DrPH						
Family and Child Health – Global Health	Dr. Ehiri	Dr. Madhivanan	Dr. Alaofe			PIF: 4 Non-PIF: 1
MPH						
Biostatistics MPH, MS, PhD	Dr. Bedrick	Dr. Roe	Dr. Melanie Bell	Dr. Hsu		PIF: 4 Non-PIF: 1
Epidemiology MPH, MS, PhD	Dr. Ernst	Dr. Brown	Dr. Jacobs	Dr. Klimentidis		PIF: 6 Non-PIF: 3
Applied Epidemiology (Online)	Dr. Foote	Dr. Pettygrove	Dr. Dennis			PIF: 5 Non-PIF: 0

MPH						
Public Health Policy & Management MPH, DrPH	Dr. J. Gerald	Dr. Derksen	Dr. Barraza	Dr. Carroll		PIF: 1 Non-PIF: 9
Environmental & Occupational Health MPH	Dr. Reynolds	Dr. Kilungo	Dr. Verhougstraete			PIF: 1 Non-PIF: 1
Environmental & Occupational Health - Industrial Hygiene MPH	Dr. Reiss	Dr. Beamer	Dr. Burgess			PIF: 2 Non-PIF: 2
Environmental Health Sciences MS, PhD	Dr. Beamer	Dr. Reynolds	Dr. Verhougstraete	Dr. Burgess		PIF: 2 Non-PIF: 0
One Health MPH	Dr. Pogreba-Brown	Dr. Ernst	Dr. Ellingson			PIF: 2 Non-PIF: 0
Health Services Administration MPH	Dr. Rosales	Dr. Gonzalez	Dr. Barraza			PIF: 2 Non-PIF: 1
Public Health Practice MPH	Dr. Gonzalez	Dr. Sokan	Dr. Carter			PIF: 3 Non-PIF: 11
Clinical Leadership MPH	Dr. Rosales	Dr. Foote	Dr. Moe Bell			PIF: 2 Non-PIF: 1
BS Program	Dr. J Gerald	Dr. Brown	Dr. Gronewold			PIF: 10 Non-PIF: 0
TOTALS:	Named PIF	41				
	Total PIF	60				
	Non-PIF	39				

*__Primary Instructional Faculty (PIF)__ may be counted as a PIF a maximum of two times.

^__Faculty 3__ can be either primary instructional faculty or non-primary instructional faculty. These individuals may appear multiple times if their responsibilities and training/experience are appropriate to count in multiple concentrations.

+__Additional Faculty__ must be individually identified in Templates E1-1 and E1-2, as applicable. PIF and non-PIF faculty identified in other concentrations in the table may be included in this headcount if their responsibilities and training/experience are appropriate to count in multiple concentrations.

The FTE indicated below each faculty name should denote the contribution to the school as a whole rather than to individual concentrations.

2) **All primary instructional faculty, by definition, are allocated 1.0 FTE. Schools must explain the method for calculating FTE for any non-primary instructional faculty presented in C2-1.**

The FTE calculation for Non-primary faculty is determined on teaching and mentoring load along with any additional research and service that the faculty member conducts on behalf of MEZCOPH. Teaching a 3-semester credit course is considered 0.10 FTE on a fiscal year (0.33 FTE during a semester). Faculty can receive an additional 0.05 to 0.10 FTE (fiscal year) based on the extent that they are advising and mentoring students. Additional FTE may be supported by internal and extramural funds for supporting research and service activities.

3) **If applicable, provide a narrative explanation that supplements reviewers' understanding of data in the templates.**

Not Applicable.

4) **Data on the following for the most recent year in the format of Template C2-2. See Template C2-2 for additional definitions and parameters.**

The Office of Student Services and Alumni Affairs includes several academic advisors who are responsible for undergraduate students. The undergraduate advisors are assigned students based on the first letter of their last name and thus the number the students being advised per advisor slightly varies (Table C2-2). The lead academic advisor has a lower advising load than the other advisors based and is why the minimum is much lower than the average. Additionally, the maximum for the number of Master student is skewed a bit high due to our MD-MPH program. These students are across four years of medical school and assigned to one faculty member. They require significantly less advising time as each class is about 10 students.

The data for the advising is based on spring 2019. Although these numbers may vary semester to semester based on graduation, they represent the normal average and range for advising.

Template C2-2. Faculty regularly involved in advising, mentoring and the integrative experience

General advising & career counseling			
Degree level	**Average**	**Min**	**Max**
Bachelor's	76	25	105
Master's	4	1	35
Doctoral	2.9	1	7

C2-2a. Advising in MPH integrative experience*		
Average	**Min**	**Max**
3	1	17
Supervision/Advising of bachelor's cumulative or experiential activity		
Average	**Min**	**Max**
120	103	160

C2-2b. Mentoring/primary advising on thesis, dissertation or DrPH integrative project			
Degree	**Average**	**Min**	**Max**
DrPH	1.9	1	4
PhD	1.7	1	4
Master's other than MPH	1.2	1	2
For each calculation, only include faculty who participate in the activity (i.e., zeroes should not be included in the calculation). If both primary instructional faculty and non-primary instructional faculty or staff are regularly involved in these activities, stratify the data.			
Min is the lowest number of students that a faculty member advises and Max is the highest number of students that a faculty member advises at defined point in time, chosen by the school or program. Point in time must be suitably representative (eg, sixth week of fall semester).			
Mentoring/primary advising on thesis, dissertation or DrPH integrative project counts first readers only.			
*Backup documentation used in calculations are provided in **ERF C2**.*			
Schools should only present data on public health degrees and concentrations.			

5) **Quantitative data on student perceptions of the following for the most recent year. Schools should only present data on public health degrees and concentrations.**

a. Class size and its relation to quality of learning (eg, the class size was conducive to my learning)

Recent Spring 2019 graduates were asked to respond to a question on their Exit Survey if class sizes were conducive to the learning experience during their program. Responses were on a Likert Scale, 1 being poor and 5 being excellent. All degree groups had an average rating of 4.00 or greater (**Table C1**); reflecting that the size of our classes are conducive for the learning experience.

Table C1. Student Perceptions on Class Sizes

	Number of Respondents	**Class sizes were conducive to the learning experience**
BS	166	4.09
MPH	80	4.64
MS/DrPH/PhD	4	4.00
Total	250	4.26

b. Availability of Faculty (i.e., Likert scale of 1-5, with 5 as very satisfied)

Recent Spring 2019 graduates were asked to respond to a question on their Exit Survey related to faculty availability. Responses were on a Likert Scale, 1 being poor and 5 being excellent. All degree groups had an average rating of 4.00 or greater (**Table C2**); reflecting that faculty are meeting our students' expectations for their availability.

Table C2. **Student Perceptions on Faculty Availability**

	Number of Respondents	Faculty availability to students (Includes but not limited to meeting outside of class, holding office hours, or communicating via email)
BS	166	4.33
MPH	80	4.38
MS/DrPH/PhD	4	4.00
Total	250	4.34

6) **Qualitative data on student perceptions of class size and availability of faculty. Only present data on public health degrees and concentrations.**

In the Exit Survey, graduating students are asked to provide strengths and weaknesses of faculty advising. Of the students expecting to graduate in 2018 and 2019, 129 graduate level students (122 MPH, 3 MS, 3 DrPH, and 1 PhD) provided comments related to faculty advising. Comments were reviewed. There were 109 comments on strengths and 68 comments on weaknesses. Many students described having good or great communication with their faculty advisors. When seeking help, faculty provided resources, opportunities, and or insight/experience that was useful. Many also described the faculty as engaged, understanding, and supportive. Many faculty members were cited by name for their strengths as faculty advisors. It was noted that some faculty were perceived to be more engaged and or approachable than others. In the weaknesses, students described there was confusion on topics such as internship requirements, organization, and or procedures/paperwork. There were also comments that faculty can be perceived as "busy" or "more focused on research" and not always readily available. Timely responsiveness to emails was also a commonly described weakness. A complete listing of the individual comments is provided in **ERF C2.**

A focus group with 14 undergraduate students in summer 2019 focused on the pre-public health to public health process, the combination of online and face-to-face classes and the quality of instruction in the program and to a lesser extent advising. They had no problem with the sizes of our courses including the introductory courses (178 and 200) as they are our largest classes. However, within this discussion students were not sure how well the discussion boards are actually being monitored and graded as many stated they got all the points for participating. Group projects were also a concern. The students understood that they were being asked to do this to help them prepare for the workforce. Issues related to group projects include that not everyone provides the same input but all get the same grade at times but they also acknowledged that there are peer evaluations that are also used to adjust grades. They also thought that they do not need to get this experience in so many classes and often can learn the information by doing projects on their own. In response to this input, MEZCOPH held a workshop at the start of the fall 2019 semester on group projects for our faculty that was provided by the University Office Instruction and Assessment that addressed these issues.

The students were very pleased with the advising that they received. The main issue that was raised by some students was how the advisors would not allow them to take more than 19 units. Some students explained that this was due to the number of hours that would be required for doing an internship but others stated that they still could not take more courses. Most of the students believed that they should be the ones to determine if they can handle the workload or not.

7) **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

Not applicable.

C3. STAFF AND OTHER PERSONNEL RESOURCES

C3. Staff and Other Personnel Resources

The school has staff and other personnel adequate to fulfill its stated mission and goals. The stability of resources is a factor in evaluating resource adequacy.

1) **A table defining the number of the school's staff support for the year in which the site visit will take place by role or function in the format of Template C3-1. Designate any staff resources that are shared with other units outside the unit of accreditation.**

Template C3-1 Schools' Staff Support

Role/function	FTE
College Wide Administration & Support Services	
Admin & Program Support	9.75
Academic Affairs	5.00
Student Services	10.00
Finance, Facilities, and Human Resources	8.00
IT Support	5.50
Development Office	2.00
Corporate Relations & Alumni Affairs	1.50
Epidemiology/Biostatistics	
Department Administration	1.00
Program/Project Personnel	6.66
Health Promotion Sciences	
Department Administration	1.00
Program/Project Personnel	55.82
Community, Environment & Policy	
Department Administration	1.00
Program/Project Personnel	16.54
Public Health Practice/Trans Research	
Department Administration	1.00
Program/Project Personnel	5.00
Global Health Institute	
Program Coordination	1.00
Center for Rural Health	
Administrative Support	1.00
Finance	1.00
Program/Project Personnel	17.83
Total Staff FTE	**150.60**

2) **Provide a narrative description, which may be supported by data if applicable, of the contributions of other personnel.**

Other than faculty and staff, graduate assistants, postdoctoral researchers, and student workers are part of the College's workforce.

Graduate students are hired as either Teaching Assistant (TA) or Research Assistant (RA). In FY2019, the College hired 77 TAs and 23 RAs for a total of 42.15 FTE. TAs are funded by the College and assigned to specific courses to assist with student and faculty support, including activities such as reviewing and grading assignments, responding to student questions, and preparing and providing lectures under the supervision of the faculty member. RAs are normally hired by faculty and funded via grants, gifts, or startup packages. The College also funds a 0.25 FTE GA for each Department.

The College currently has 5 Postdoctoral Scholars (Postdoc) and is planning to hire 5 to 6 more in the coming year. Each Postdoc is assigned a faculty supervisor and is generally funded via research grants or other institutional sources. In addition to the grant funded Postdocs, the College funds 1 FTE Postdoc for each Department. The primary responsibility of the Postdocs is research and related activities.

The College and Departments also hire hourly student workers to assist with some routine administrative work and one-time projects. Hiring hourly student workers is a common practice across campus and it benefits both the students and the hiring units.

3) **Provide narrative and/or data that support the assertion that the school's staff and other personnel support is sufficient or not sufficient.**

The current staff and other personnel support meet the need of the College, the Departments, and faculty. Additional staff and other personnel could be added as the College and Departments develop new programs, hiring new faculty members, and bringing new grant and gift funding.

The College level administrative and program support personnel include: 1 Special Assistant to the Dean, 1 staff supporting the Associate Dean for Research, 1.25 FTE staff supporting the Associate Dean for Outreach and Community Engagement, 0.5 FTE staff supporting the Committee on Equity and Inclusion, and 1 Communication Director. In addition, there are 5 program staff working for the Western Region Public Health Training Center led by the Associate Dean for Academic Affairs.

The following services are supported centrally at the College level:

- Academic Curriculum
- Student Services
- Finance, Facilities, and Human Resources
- Information Technology
- Development and External Relations

There are two academic curriculum coordinators for the College, one located in the Tucson campus and one in Phoenix. These two positions coordinate the course offering and classroom arrangements. The Tucson position also provides support to activities related to Academic Affairs. The Phoenix position provides student services in addition to curriculum coordination. Academic Affairs is also staffed with a Director for Online MPH Program and a Coordinator/Lecturer for Undergraduate Internship Program.

Student Services has 10 employees including: 4 Academic Advisors, 3 Program Coordinators, 1 Admissions Director, 1 Administrative Assistant, and the Assistant Dean for Student Services.

This team of 10 overseas student admission, advising, financial aid local awards, student activities, and alumni services.

The College's Finance and Physical Resource Office provides support in accounting, budgeting, cost analysis, financial reporting, facilities coordination, and human resources. The team includes 2 human resources staff, 1 facility coordinator, 4 accounting staff, and the Assistant Dean for Finance and

Administration. Each accounting staff is paired with one Department as the Department's primary accounting support. As this is a centralized service to allow more efficiency and cost saving, the team members provide coverage for each other's duties as needed.

Information technology support is also provided at the college level. The IT Office has 5.5 FTE and provides PC support, system administration, web development, and specialized IT services to projects funded by grants, gifts, and other funding sources.

At the Department level, each Department is supported by 1 Administrative Associate funded by the College. This position assists with routine administrative duties such as supply purchases, assisting faculty and other employees for reimbursement, and coordinating departmental meetings and activities. Center for Rural Health is staffed with 1 Business Manager and 1 Administrative Associate. Global Health Institute is supported by 1 Program Coordinator.

In addition to the administrative support, each Department has academic professionals, service professionals, and staff working on programs and projects supported by grant funding, gift funding, and other institutional resources.

4) **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

Not applicable.

C4. PHYSICAL RESOURCES

C4. Physical Resources

The school has physical resources adequate to fulfill its stated mission and goals and to support instructional schools. Physical resources include faculty and staff office space, classroom space, student shared space and laboratories, as applicable.

1) **Briefly describe, with data as applicable, the following. (Note: square footage is not required unless specifically relevant to the school's narrative.)**

MEZCOPH's current primary building, Drachman Hall, integrates instructional, student, and administrative. Students have easy access to faculty, student services, and study space. It provides a feel of home for students. In addition, Drachman Hall is located in the heart of the UAHS Tucson campus, allowing students easy navigation to all other buildings, library facilities, bookstores, additional study space, and cafeterias. The lab space in the Medical Research Building (MRB) offers open research environment with easy access to core facilities, adjacent offices and study space.

The newly added UAHS buildings such as the Health Sciences Innovation Building (HSIB) and the Biomedical Sciences Partnership Building-Phoenix (BSPB) significantly increase instructional space and shared student space for the entire UAHS campus. These new buildings were designed with students and collaborative learning and research in mind. The space, therefore, is modern, attractive, and functional with the most advanced research and classroom technologies.

The UAHS Library is located right on campus. With its liaison program, the library offers strong support and services to students and faculty for their instructional and research needs.

With more than 7,000 Net Assignable Square Feet (NASF) of newly assigned space in Phoenix, MEZCOPH's Phoenix campus has adequate space to grow existing and new programs.

- **Faculty office space**

  Faculty members are assigned an office and cubicle spaces for their graduate students or research staff. There is currently 7,400 NASF assigned to faculty. Faculty office space is primarily located in Drachman Hall with the standard office being 110 sq. ft that includes modularized furniture. Several primary faculty members also have office space in the Arizona Cancer Center and in the Biomedical Research Laboratories (BRL).

- **Staff office space**

  Staff are assigned either an office or cubicle as well. Current staff space totals 6,700 NASF.

- **Classrooms**

  Most of the MEZCOPH classes are housed in Roy P. Drachman Hall, a building with 66,105 NASF of which 19,684 NASF are assigned as classroom space. The College also has access to instructional space in other UAHS buildings. Section 2 below provides additional description of classroom space. Instructional programs and classes take priority over all other business-related scheduling. The building includes 3 large, stadium style classrooms (128 workstations each) and 6 small to medium size classrooms (ranging from 20 to 40 to 60 workstations each). In addition, there are twenty 10-12-person capacity breakout rooms that are used for course instruction and study sessions. The breakout rooms are particularly popular with students wanting a more private and quiet space to study between classes and after hours. Instructional space on the Phoenix campus is shared with other colleges. In addition to the classroom space in Drachman, the College has access to 72,900 NASF instructional space in other buildings located on both Tucson and Phoenix campuses.

- **Shared student space**

  Drachman Hall is equipped with group study rooms, lounges, computer rooms, a lactation room, and a wellness room for student use. In addition, students have access to all UAHS buildings including the library. Many of the newer buildings provide inviting lounges, study rooms, patio spaces, hallway group sitting areas, and other open spaces to facilitate student activities and collaborations.

  Graduate teaching assistants have desk space on the second floor in Drachman Hall. They also have shared study space in on the first floor of Drachman Hall. The HSIB and library also provide numerous study rooms.

- **Laboratories, if applicable to public health degree school offerings**

  MEZCOPH is assigned more than 8,300 SF in the Medical Research Building (MRB) with wet/dry laboratory space and research/laboratory support space for MEZCOPH. The MRB also offers access to space jointly held by all building occupants such as the freezer room, an equipment storage room and hazardous waste drop-off facility. Section 2 below provides additional information of lab space.

  Our College has numerous wet labs and field-based sites where students are able to conduct projects. Our Environmental Health Sciences laboratories include having students work in field sites such as local mines. We offer students travel funds to present research finding. We have a Statistical software in computer lab with statistical software and access to other cloud-based programs. One of the strongest assets are the library services that are available to our students including a librarian who is housed in Drachman Hall. We have numerous scholarships that students can also use to carry out projects. Many student projects are also conducted in conjunction with faculty support and/or with community agencies. Our Collaboratory, a shared space with the Departments of Nutrition, Family and Community Medicine, and the Diabetes Center, and the Pima County Health Department, is a resource that is also used by students to conduct projects related to chronic diseases. Students are also embedded in many projects at various centers within and outside of MEZCOPH such as Arizona Cancer Center, an NIH comprehensive Cancer.

- **Additional Space**

  Drachman Hall also houses space to support student, staff and faculty activities. First floor rooms are available for study groups. There is a student lounge and a faculty lounge. Additionally, we have a lactation room and wellness room within our building. The College also has access to more than 70,000 NASF shared space in other UAHS campus buildings.

2) **Provide narrative and/or data that support the assertion that the physical space is sufficient or not sufficient.**

Currently, MEZCOPH conducts business from 7 locations in the Tucson and Phoenix metropolitan areas. Allocated and leased space assigned to the College totals at 47,276 NASF.

Listing of space allocated to MEZCOPH by building number:

Bldg. 151.03 - Babcock Office Building C, 1717 E Speedway Blvd, Tucson (549 NASF)
Bldg. 202 - Drachman Hall, 1295 N. Martin Avenue, Tucson, COPH offices and meeting space (21,249 SF) plus shared instructional space (19,684 NASF)
Bldg. 228 - COPH-Center for Health Equality, 1145 N. Campbell, Tucson (1,615 NASF)
Bldg. 241 - Medical Research Building (MRB), 1656 E Mabel Street, Tucson (8,305 NASF)
Bldg. 341 - Pima County Abrams Building (Leased), 3950 S Country Club, Tucson (6,440 NASF)
Bldg. 479 - COPH Drachman House, 1540 E. Drachman, Tucson (1,720 NASF)
Bldg. 3002 - University of Arizona Phoenix Plaza - Building 1, 714 East Van Buren, Phoenix (7,398 NASF)

The College's primary location for instruction, administration, meeting and faculty/staff office space is the assigned 21,249 SF in Drachman Hall (Bldg. 202) located in Tucson plus 19,684 SF shared teaching space.

Drachman Hall offers on site access to 19,684 SF shared instructional space (housed on the first level of the facility) specific to the colleges of public health, pharmacy and nursing. This shared instructional space provides 3 lecture halls for 128 students each, one 30-workstation distributed learning classroom, 2 interactive learning classrooms with 60 workstations, 2 interactive learning classrooms with 40 workstations, one interactive learning classroom with 20 workstations, and 12 breakout or discussion rooms. On the third floor of Drachman Hall, a 21-workstation computing lab is reserved specifically for MEZCOPH students and instructors. In addition, the College offers an on-site wellness room sponsored by the Canyon Ranch Center for Prevention and Health Promotion, a lactation room and two student lounges. All bathrooms on 1st and 2nd floors are equipped with baby changing stations for students and employees to use.

Bldgs. 228, 241 and 479 are university owned buildings on the UAHS campus in Tucson. Each location supports the research activities and provides additional office space for the Global Health Institute and Environment, Exposure Science, and Risk Assessment Center (ESRAC), etc. Projects housed at these sites receive state, local, federal and gift support. Building 241 (MRB) houses most of the research and teaching labs for MEZCOPH. MRB is a state-of-the-art facility houses shared core facilities, open wet labs, and faculty/student office space designed to maximize collaborative research and interaction among students and faculty. MRB houses significant infrastructure and tools for studying industrial hygiene, indoor environmental surveillance, and biological exposure assessments. The research office space includes five offices for faculty, a copy room with IKON copier, two conference rooms available by appointment, and twelve student cubicles. All MEZCOPH computers at MRB are equipped with a wide variety of software, including Microsoft Office, ArcGIS, S-PLUS, STATA, and MATLAB. The computers are connected to a Local Area Network, which provides access to back-up servers and laser printers.

Bldg. 341 is leased space from Pima County. The space houses Canyon Ranch Center of Prevention and Health Promotion, and the Arizona Smokers Helpline (ASHLine). Projects housed at these sites receive state, federal and gift support. This building also houses UA's Collaboratory, a collaboration between MEZCOPH, the College of Medicine, and the College of Agriculture and Life Sciences. The Collaboratory's mission is to create an environment where individuals who pursue basic clinical and translational research can interact and stimulate innovative interdisciplinary research programs.

MEZCOPH is recently assigned 7,398 SF space in Building 1 on UA's Phoenix downtown campus. The newly added space will provide the College's Phoenix faculty and staff offices, conference rooms, and attractive student space that promotes collaboration.

In addition to the assigned space, the College has access to multiple UAHS buildings on both Tucson and Phoenix campuses to meet the instructional, research, and administrative needs.

Listing of buildings MEZCOPH has access to:

Bldg. 201.01 - UAHS Library, 1350 N Warren Ave, Tucson (58,521 NASF of which 24,475 SF are shared space for student and faculty use)

Bldg. 216 – Health Sciences Innovation Building (HSIB) was completed and opened in fall 2019. It has 115,330 NASF, of which 40,889 NASF are instructional space. There are additional 14,836 NASF shared space for student and faculty use. Classrooms include lecture halls, collaborative learning rooms, and clinical teaching and simulation space.

Bldg. 240 - Thomas W. Keating Bioresearch Building, 1657 E Helen St., Tucson (102,728 NASF of which 6,439 SF are meeting rooms and lounges for student and faculty use)

Bldg. 241 - Medical Research Building, 1656 E Mabel St., Tucson (79,518 NASF of which 6,133 SF are meeting rooms and lounges for student and faculty use)

Bldg. 242 - Bioscience Research Lab, 1230 N Cherry Ave, Tucson (97,051 NASF of which 4,904 SF are meeting rooms and lounges for student and faculty use)

Bldg. 3004 - Health Sciences Education Building (HSEB), 435 N 5th St., Phoenix (141,745 NASF of which 27,504 are shared instructional space)

Bldg. 3006 - Biomedical Sciences Partnership Building (BSPB), 475 N 5th St., Phoenix (135,667 NASF of which 4,525 are shared instructional space)

MEZCOPH has access to use classrooms, meeting space, and student space in all UAHS buildings. The Phoenix downtown campus offers access to shared instructional and student space in Health Sciences Education Building (41,454 NASF) and Biomedical Sciences Partnership Building (9,797 NASF).

The Tucson campus, in addition to the exiting assigned and shared space, MEZCOPH now has access to the newly erected Health Sciences Innovation Building. This new building has 55,725 NASF for instruction, student lunges, offices, conference rooms, and inviting public space for events and activities. The 40,889 NASF state-of-the-art instructional space offers simulated, real-life situations for teams of students, faculty and health professionals in medicine, nursing, pharmacy and public health. The building provides flexible, large, medium and small group/team learning areas and clinical labs and simulation centers for a broad spectrum of instructional applications.

Other than the instructional and research buildings, the UAHS Library also provides physical resources for students, faculty, and staff. It is the largest, most comprehensive health sciences library in Arizona. The library and librarians provide access to essential medical information, participate as instructors in the curriculum of the colleges, and work in partnership with researchers and clinicians to advance health information literacy. The library also provides spaces for small group collaboration and quiet study. With its main location in Tucson and a smaller facility in Phoenix Health Sciences Education Building, the UAHS Library's collections offer access to 150,121 titles, 230,153 volumes, 20,521 e-journals, 32,581 e-books, and 189 databases to students, faculty, staff, and general public. Financial assistance for other staff is primarily based on grant funds, and IDC and tuition recovery.

3) **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

Not applicable.

C5. INFORMATION AND TECHNOLOGY RESOURCES

C5. Information and Technology Resources

The school has information and technology resources adequate to fulfill its stated mission and goals and to support instructional schools. Information and technology resources include library resources, student access to hardware and software (including access to specific software or other technology required for instructional schools), faculty access to hardware and software (including access to specific software required for the instructional schools offered) and technical assistance for students and faculty.

1) **Briefly describe, with data if applicable, the following:**

- **library resources and support available for students and faculty**

  The University of Arizona Health Sciences Library (UAHSL) serves all colleges under the Arizona Health Science Center (AHSC), which include the College of Public Health, Nursing, Pharmacy and Medicine. As part of the University of Arizona Libraries (system), UAHSL also supports and works in close partnership with all campus libraries in their engagement with the various colleges and programs from the university main campus in Tucson.

  All affiliated users may access library resources online while off-campus by authenticating themselves once per session using their campus NetID and Password. This easy process gives them access identical to what they would experience on campus.

  All UAHS students, faculty and staff have "24/7" access to the library. UAHSL regular (staffed) hours are:
  Monday – Friday 7:00 a.m. – 7:00 p.m.
  Saturday - Sunday 9:00 a.m. – 7:00 p.m.

  To use the Library after regular staffed hours, UAHSL constituencies pass their identification card (CatCard) over a reader, which opens the door.

  UAHSL is moving away from offering lockable study rooms in favor of a system supported by the UA Libraries (system) whereby students may secure online reservations to study rooms (LibCal). Students appreciate the surety of knowing when a room is available. When Information Commons study spaces come online in the new Health Sciences Innovation Building (HSIB) in early 2019, all study rooms including 60 single-person rooms, will be managed through the LibCal system. UAHSL's previous key-based system of circulating keys to lockable study rooms will not scale to the HSIB facility. While in the Library, users have access to lockers for securing possessions.

  In addition to the physical collection, UAHSL offers a significant and growing electronic collection that covers the full spectrum of the biomedical literature and is made available on and off campus via the UAHSL website (http://ahsl.arizona.edu). For example, the libraries license over 200 leading journals and serials in the areas of public health, epidemiology, environmental health and border health with local, state, national and international coverage. They provide access to major databases in the health and social sciences as wells as significant electronic textbooks and a rapidly growing collection of other ebooks.

  In support of the College of Public Health, AHSL provides the following library services:
  - Develops and maintains a collection of print and electronic resources that support the current curriculum and research needs of the college;
  - Provides consistent and reliable access to the collection and resources both on and off campus and via a multitude of information platforms (phones, tablets, laptops, etc.);
  - Utilizes advanced technology and techniques to organize information resources for optimal discovery and use (library catalog, search tools, websites);
  - Delivers journal articles and books outside of the library's collection in a manner that is timely and cost effective (interlibrary loan/document delivery);
  - Coordinates and delivers video-streaming services for courses.

- **student access to hardware and software (including access to specific software or other technology required for instructional schools)**

  MEZCOPH students, like other University of Arizona students, use the Desire to Learn (D2L) learning management system (LMS) where all of the for-credit courses taught by MEZCOPH requiring an LMS are housed. D2L provides the standard course management functions such as learning content, discussions, quizzes and grades but also has third party software integrations for lecture capture (Panopto), multimedia discussions (Voicethread), online meetings (Zoom), plagiarism detection (Turnitin), etc., along with integrations into the university's enterprise student information system for automated course enrollments in D2L and grade reporting out from D2L at the end of each semester. Student email services are provided through a contract with Google and its Apps for Education offering. This also provides students the suite of tools available via Google Apps that includes 100 gigabytes of online storage space in Google Drive.

  Other computing resources for students include:

  i. **Computer Lab In Drachman Hall**
  MEZCOPH's computer lab, equipped with 21 Windows personal computers, a printer, and projection equipment, is located on the third floor of Drachman Hall in Room A319.The computer lab is available for general use, Monday through Friday from 8 AM -5 PM, unless the lab has been scheduled for a class, study session, or other College activity. Information about courses scheduled in the computer lab, for the current week, will be posted outside the lab door. Students can also view the computer lab schedule via the UA Health Sciences Scheduling System (search by date for Drachman Hall Room A319). Stata, SPSS, SAS, ArcGIS, R, EpiInfo, Matlab, Skype, Adobe Acrobat Pro and Microsoft Office are installed on each system. nVivo is available on lab computers in the first and half of the second rows. There is a printer in the computer lab. Students must provide their own paper for printing**.**

  ii. **Other Computer Labs**
  Other computer labs are available on campus though they won't have the same suite of software titles available in the Drachman Lab. The Office of Student Computing Resources operates these labs and that information is available here, http://oscr.arizona.edu/ . Additionally, the libraries offer access to computers in labs and study areas. That information is here, https://new.library.arizona.edu/visit/spaces/computer-study-areas

  iii. **Software Available through University Licensing**
  The University Bookstores manages software titles that are available to students for free or at a discount. For a list of these software, please visit https://softwarelicense.arizona.edu/students

  iv. **Wireless Internet Access**
  Wireless access is available throughout and around Drachman Hall via connection to the UAGuest and UAWiFi networks. UAGuest is for use by visitors to our campus. A temporary user id and password are texted back to the user for connection to this network. UAWiFi, on the other hand, is a secure and fast wireless network that is available across most of our campus. Funded by the Student Technology Fee, it brings roaming wireless access for all students, staff and faculty on campus. Connection to UAWiFi requires authentication using the university's NetID and password. The UAWiFi network, when connected, allows students to access on-campus networked resources that are generally unavailable over the public Internet, such as the libraries and the university's student information system.

- **faculty access to hardware and software (including access to specific software or other technology required for instructional schools)**

  Faculty's technology resources mainly reflect what's available to students with some minor differences. Email services for faculty and other university employees are provisioned by Microsoft

Office 365, through an institutional contract. Other Office365 suite of applications are also available to faculty and staff including one terabytes of cloud data storage through OneDrive. Other online data storage is available through a contract with Box and faculty members are given 50 gigabytes of personal space with unlimited space made available through departmentally allocated Box folders.

Faculty computers and other software that requires license fees are generally procured through a variety of funding sources including grants and contracts, state funding and other sources of income. The MEZCOPH IT department configures and purchases these computers and ensures a standard set of University software prior to deployment. For security purposes, all new computers purchased since summer of 2018 have been encrypted prior to deployment and others purchased prior to that time are being encrypted automatically through a centrally deployed security software policy through SOPHOS Central.

UITS offers free high-performance computing resources in the Research Data Center (RDC), a state-of-the-art facility that hosts large computer clustered systems to analyze massive amounts of collected data.

Free: Time on these systems is available at no charge to any faculty, researcher, or student who has a use for HPC systems.
Buy-In: Researchers may also **buy in** to these systems to receive high-priority access. Contact **hpc-consult@list.arizona.edu** for more information.

- **technical assistance available for students and faculty**

Help desk support for students and faculty is available through the central campus IT unit, University IT Services (UITS), through telephone, Chat and online ticket submissions. Help is also available through the college's IT office, but the IT office is mainly the support point of contact for MEZCOPH's faculty and staff. UITS and MEZCOPH use the same help desk ticketing system that allows for collaborative support for faculty and students along with a single source of data for reporting and assessment.

UAHSL librarians have developed subject and knowledge management expertise designed to meet the specialized demands of each of the AHSC Colleges. To better support students, faculty and researchers, UAHSL liaison librarians are assigned to and housed within each of the colleges, using an "embedded librarianship" model where they become an integral part of that community. MEZCOPH has one "embedded" liaison librarian (1.0 FTE) who has expertise in border health, health disparities, community-campus engagement and community-based participatory research (CBPR), Spanish, biomedical informatics, and biological sciences. She is located in Drachman Hall and works closely with MEZCOPH faculty to provide library services that support instruction and research. She teaches in the curriculum, develops innovative curricula that foster information literacy and provides reference and research assistance.

More specifically, the embedded Public Health librarian collaborates with other UAHSL librarians and colleagues in the main library to deliver the following services to students and faculty of the College of Public Health:

Instruction

- Provides classroom instruction to develop research skills in using scholarly library resources, including database searching;
- Designs videos, tutorials, subject guides and other tools that guide students in the online use of library resources;
- Designs instructional activities that utilize library resources;
- Develops information services for online certificate programs and other online courses;
- Teaches students information management skills using library-supplied technologies (EndNote, Mendeley, etc.);
- Provides one-on-one assistance to students in finding, accessing and using library resources effectively in fulfillment of coursework and research assignments;

Research

- Conducts comprehensive literature searches and systematic reviews to support student and faculty research and grants;
- Assists with use of specialized research databases such as PubMed, Embase, Scopus, Web of Science and Health and Psychosocial Instruments;
- Provides strategies to manage information, including bibliographic management software, automated searches, table-of-content services;
- Identifies appropriate sources for locating grant opportunities;
- Assists with NIH Public Access compliance;
- Assists in writing data management plans;
- Provides in-office consultations;

Outreach

- Develops and implements outreach activities to promote access to health information and library resources.

UAHS Library Liaison Program

UAHS Library also offers a liaison program. There are librarians located in colleges to support students, faculty and researchers. MEZCOPH currently has 2 rotating liaison librarians housed in Drachman Hall. On-site liaisons provide the following services to our college:

Faculty and Staff:

- Conduct comprehensive literature searches for grant proposals and publishing.
- Provide course integrated instruction to support student coursework - research papers or class assignments.
- Provide curriculum support with access to resources.
- Facilitate access to resources and mitigate access issues.

Students:

- Provide hands-on training to develop research skills using scholarly library resources such as the databases (i.e. MEDLINE, PubMed) and biographic management programs (EndNote Web).
- Assist with coursework and research assignments.

Other:

-Develop and implement outreach activities to promote access to health information and library resources.
-Participate in community-campus partnerships for public health practice and promotion.

When the liaisons are not teaching or meeting with clients, they assist with reference questions**,** related to coursework or grant preparation or publishing opportunities for faculty and staff. They also work on developing information services for the online certificate programs or online courses. Our liaison is also part of the library's Outreach Services team and partner with, or support faculty researchers in UAHS colleges on community-based projects or programs that integrate information services and/or access to information resources for underserved communities and populations. This includes training community health workers, public librarians, and public health professionals and workshops for various programs and local groups.

MEZCOPH has access to the statewide Arizona Telemedicine Program to enhance communications and real-time shared instruction between the two campuses and to support other statewide communication.

We have a librarian embedded within MEZCOPH. With staff turnover, we are fortunate to have Jean McClelland as our College's librarian as she has been working on numerous community-based projects as a member of the college over the years and has a degree in library sciences. She is employed by the AHSC library.

2) **Provide narrative and/or data that support the assertion that information and technology resources are sufficient or not sufficient.**

Information and technology resources in support of faculty, staff and students are adequate. This assertion is based on the available human resources in the MEZCOPH IT office that supports the college's affiliates. The IT office, headed by a director, is organized into a technical, user and business unit support subgroup, a web and application development subgroup and a recently added half-time Data Analyst - a total of 5.5 FTE. In addition to providing broad technical support services to the college's seven disparate locations that includes the Phoenix campus, the office supports a computer lab and 17 websites, including the Intranet (The Hub), where students and faculty access MEZCOPH specific information and locally developed data collection and workflow applications that largely enable the student experience (e.g. progress reports, Internships, inter-professional experiences). The IT office has developed and continue to support a grant-funded mobile app, Kidenga, for community reporting of mosquito-borne illnesses and mosquito activity, and have requests to develop other applications. IT also provides support for the Western Region Public Health Training Center's Moodle learning management system, used by public health workforce learners. That system has over 7000 learners that require technical and end user support. Lastly, a half-time Data Analyst, a position created and filled in January 2019, is supporting the data gathering for the CEPH accreditation Self-study, and is re-architecting the local databases in the Office of Student Services and Alumni Affairs for evaluation and reporting. The IT office provides these diverse services to the college's faculty, staff and students with very good feedback based on annual satisfaction surveys.

3) **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

Not applicable.

D1. MPH & DrPH FOUNDATIONAL PUBLIC HEALTH KNOWLEDGE

D1. MPH & DrPH Foundational Public Health Knowledge

The school ensures that all MPH and DrPH graduates are grounded in foundational public health knowledge.

The school validates MPH and DrPH students' foundational public health knowledge through appropriate methods.

1) **Provide a matrix, in the format of Template D1-1, that indicates how all MPH and DrPH students are grounded in each of the defined foundational public health learning objectives (1-12). The matrix must identify all options for MPH and DrPH students used by the school.**

All relevant course syllabi are listed in ERF D01.1-D01.7	
Template D1-1. Content Coverage for MPH (and DrPH degrees, if applicable) (SPH and PHP)	
Content	**Course number(s) & name(s) or other educational requirements**
1. Explain public health history, philosophy and values	HPS 577 Sociocultural & Behavioral Aspects of Public Health PHPM 574 Public Health Policy and Management.
2. Identify the core functions of public health and the 10 Essential Services*	Orientation Course on Public Health Essentials in Action. This course was developed and produced by the college's public health training center. See **ERF D01.1** for the course description. Links to the course: https://moodle.publichealth.arizona.edu/course/view.php?id=84
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	EPID 573A Basic Principles of Epidemiology; BIOS 576A Biostatistics in Public Health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	EPID 573A Basic Principles of Epidemiology HPS 577 Sociocultural Aspects of Public Health.
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	HPS 577 Sociocultural and Behavioral Aspects of Public Health PHPM 574 Public Health Policy and Management
6. Explain the critical importance of evidence in advancing public health knowledge	PHP 580 Integrated Public Health Learning Experience
7. Explain effects of environmental factors on a population's health	EHS 575 Environmental and Occupational Health
8. Explain biological and genetic factors that affect a population's health	Biology is a prerequisite for admission. HPS 505 Biology of Public Health is offered to make up this deficit. EHS 575 Environmental and Occupational Health
9. Explain behavioral and psychological factors that affect a population's health	HPS 577 Sociocultural & Behavioral Aspects of Public Health.
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities	HPS 577 Sociocultural & Behavioral Aspects of Public Health; PHPM 574 Public Health Policy and Management
11. Explain how globalization affects global burdens of disease	EHS 575 Environmental and Occupational Health HPS 577 Sociocultural & Behavioral Aspects of Public Health
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)	EHS 575 Environmental and Occupational Health

2) Document the methods described above. This documentation must include all referenced syllabi, samples of tests or other assessments and web links or handbook excerpts that describe admissions prerequisites, as applicable.

The five core courses that identified for meeting these requirements are provided in the **ERF D01**. Also, all students meet the foundational knowledge #2 Identify the core functions of public health and the 10 Essential Services, by taking Public Health Essentials in Action," an online course offered by the Western Region Public Health. This multimedia training provides a dynamic look at some of the most fundamental aspects of public health from the unique points of view of members of the workforce and of community members as well. Learners gain a grounded understanding of the Three Core Public Health Functions and the Ten Essential Public Health Services. This course has been classified as "High-quality—the very best training" by the Public Health Learning Navigator that has experts and practitioners alike evaluate courses using Quality Matters to ensure that learners have access to high-quality training, tools, and resources they need to support community and population health. Students receive a certificate after completing this course.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

D2. MPH FOUNDATIONAL COMPETENCIES

D2. MPH Foundational Competencies

The school documents at least one specific, required assessment activity (eg, component of existing course, paper, presentation, test) for each competency, during which faculty or other qualified individuals (eg, preceptors) validate the student's ability to perform the competency.

Assessment opportunities may occur in foundational courses that are common to all students, in courses that are required for a concentration or in other educational requirements outside of designated coursework, but the school must assess *all* MPH students, at least once, on each competency. Assessment may occur in simulations, group projects, presentations, written products, etc. This requirement also applies to students completing an MPH in combination with another degree (eg, joint, dual, concurrent degrees). For combined degree students, assessment may take place in either degree school.

1) **List the coursework and other learning experiences required for the school's MPH degrees, including the required curriculum for each concentration and combined degree option. Information may be provided in the format of Template D2-1 or in hyperlinks to student handbooks or webpages, but the documentation must present a clear depiction of the requirements for each MPH degree.**

   The MEZCOPH Curriculum Guide provides the learning experiences required for the MPH degree. The Curriculum Guide for 2020-21 is located in the **ERF A5.1**.

2) **Provide a matrix, in the format of Template D2-2, that indicates the assessment activity for each of the foundational competencies. If the school addresses all of the listed foundational competencies in a single, common core curriculum, the school need only present a single matrix. If combined degree students do not complete the same core curriculum as students in the standalone MPH school, the school must present a separate matrix for each combined degree. If the school relies on concentration-specific courses to assess some of the foundational competencies listed above, the school must present a separate matrix for each concentration.**

   Template D2-2 lists all of the MPH foundational competencies.

Template D2-2 Foundational MPH Competencies

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	EPID 573A Basic Principles of Epidemiology	EPI 573A: Students are assessed on quizzes that cover the breath of epidemiology methods.

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	EHS 575 Environmental & Occupational Health EPID 573A Basic Principles of Epidemiology HPS 577 Sociocultural and Behavioral Aspects of Public Health	EHS 575: Students are assessed on how they select data to determine workplace contaminants. Each student is required to select data for their quantitative assessment component for their class project and presentation. EPI 573A: Students are assessed on how they would select data to demonstrate potential bias in studies as part of their critique of an epidemiological paper. HPS 577: Students are also assessed on how they use qualitative from content analyses and interviews when they develop an ecological diagram. Individually, students will perform literature searches and interview at least one subject matter expert to visually diagram the antecedent conditions that underlie a specific health problem (e.g., its root causes).
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	BIOS 576A Biostatistics in Public Health EPID 573A Basic Principles of Epidemiology HPS 577 Sociocultural and Behavioral Aspects of Public Health	BIOS 576A: Students use either SAS or STATA to complete homework and have exams that assess their knowledge of statistical methods. EPID 573A: Students are assessed on quizzes regarding how they calculate measures of association with various epidemiological design using statistical software. HPS 577: Students are presented information on how to conduct a qualitative analysis and are required to complete an in-Class Qualitative Analysis Assignment using software, as appropriate.
4. Interpret results of data analysis for public health research, policy or practice	PHPM 580 Integrated Public Health Learning Experience	PHPM 580: Assignment 2 assesses students on how they have interpreted the epidemiology of an issue to propose possible public health solutions.
Public Health & Health Care Systems		
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings	PHPM 574 Public Health Policy & Management	PHPM 574: Students class presentations are assessed on how they compare the organization, structure and function of health care and regulatory systems when evaluating the US health care system. Specific assignment and reading include class activities and presentations (weeks 3 and 15) and the assessments are part of the weekly assignments that are on D2L post/discussion.
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels	HPS 577 Sociocultural and Behavioral Aspects of Public Health	HPS 577: Student assessment is conducted from quizzes on Structural determinants of health and embodiment theory and a reflection paper on self and social influences on health

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
Planning & Management to Promote Health		
7. Assess population needs, assets and capacities that affect communities' health	PHPM 580 Integrated Public Health Learning Experience	PHPM 580: Assignmen1 assesses students on how they incorporate community capacity for implementing an intervention. Students are required to read the Arizona's State Health Assessment to understand how to assess population needs. Assignment 1 assesses students on the following: • Description of the Issue • Provide a definition of the issue. • Assess the epidemiology. • Assess the incidence and prevalence. • Assess the associated morbidity and mortality. • Assess the contribution of age, race, gender, socioeconomics, geography to the issue and • disparities that exist. • Describe the risk factors and the absolute degree of risk associated with each.
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs	EHS 575 Environmental & Occupational Health HPS 577 Sociocultural and Behavioral Aspects of Public Health PHPM 580 Integrated Public Health Learning Experience	EHS 575: Student exams and reflections are assessed how they address issues related to environmental justice, and the cumulative effect of environmental hazards in vulnerable populations. HPS 577: Students are assessed using quizzes and class activities on social narratives, disciplinary differences, and community stakeholder perspectives. PHPM 580: Assignment 4 assesses students on how they considered cultural values with the implementation of an intervention.
9. Design a population-based policy, program, project or intervention	PHPM 574 Public Health Policy & Management PHPM 580 Integrated Public Health Learning Experience	PHPM 574: Week 10 provides information on program design. Students are assessed on how they compare the strengths and weaknesses of the program design developed for their final project. PHPM 580: Assignment 3 assesses students on their strategies for designing a population-based programs and interventions using the MAP-IT tool for Program Planning.
10. Explain basic principles and tools of budget and resource management	PHPM 574 Public Health Policy & Management	PHPM 574: Week 12 lecture focuses on the principles for developing budgets and resource management. Students are assessed on their ability to explain this information during their weekly reading reflection.

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
11. Select methods to evaluate public health programs	HPS 577 Sociocultural and Behavioral Aspects of Public Health	HPS 577: Students are presented lecture material on program planning, implementation and evaluation (See February 13). Student are assessed on how they respond to the lecture and on their final term paper and presentations.
Policy in Public Health		
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence	PHPM 574 Public Health Policy & Management PHPM 580 Integrated Public Health Learning Experience	PHPM 574: Week 4, 5 and 14 address various aspect of legislation and policy making and advocacy. Students listen to the podcast *Arizona Common Ground* on how health legislation passes through the state legislature. Student weekly discussions are assessed and their Final Project is assessed on the incorporation of public health law and ethics in the policy making process. PHPM 580: Assignment 4 assesses students on how they have incorporated multiple issues that affect implementation of policies including political, legal, social, cultural and ethical issues. They have a required reading by
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	HPS 577 Sociocultural and Behavioral Aspects of Public Health	HPS 577: There are multiple readings and assignments. …..
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations	PHPM 574 Public Health Policy & Management	PHPM 574: Weekly assignment on advocacy and the final project are assessed on how students describe advocacy approaches for supporting policies that are developed to improve the health of diverse populations.
15. Evaluate policies for their impact on public health and health equity	PHPM 574 Public Health Policy & Management	PHPM 574: Weekly assignments on program evaluation and health care quality and the final project are assessed to determine how students approach policy evaluation and its impact on health equity. The final paper requires to students to evaluate the impact of past policies as part of their community assessment and problem statement.
Leadership		
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making	PHPM 574 Public Health Policy & Management	PHPM 574: Assignments on assessment and strategic planning and leading and managing are assessed on how students apply principles of leadership, governance and management. Specifically, the weekly paper for week 7 on leading and managing is assessed on how student incorporate principles for population-based management into their discussion.

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
17. Apply negotiation and mediation skills to address organizational or community challenges	PHPM 574 Public Health Policy & Management	PHPM 574: Assignments on Leading and Managing are assessed on how students apply principles of leadership applied to negotiation and mediation skills. In week 1 students are presented information on creating working norms and agreements and on making feedback helpful and in week 2 information on negotiation and mediation based on readings that address Managing Organizational Behavior: What Great Managers Know and Do. Students are assessed on how they describe these skills in their weekly reflection and apply them while contributing to team functioning.
Communication		
18. Select communication strategies for different audiences and sectors	PHPM 574 Public Health Policy & Management	PHPM 574: Assignment on communication, media relations and marketing is assessed on how students identify appropriate communication strategies for different audiences.
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	BIOS 576A Biostatistics in Public Health EPID 573A Basic Principles of Epidemiology HPS 577 Sociocultural and Behavioral Aspects of Public Health PHPM 580 Integrated Public Health Learning Experience	BIOS 576A: Students are assessed on how they communicate the outcome of their homework assignments. EPID 573A: Students are required to summarize results of brief surveys that they design and briefly describe those results as appropriate for a published paper. Students present a poster on the outcomes of their analyses. HPS 577: Students are assessed on how they write and present a plan to community stakeholders. This is incorporated into their oral presentation of an appropriate stakeholder engagement plan. PHPM 580: Assignment 5 assesses students on how they communicate the evaluation of their project. Every student is required to provide an oral presentation at the required MPH Internship Conference. The audience at the internship conference includes preceptors and others who are working in public health, lay people (sometimes parents) and students and faculty. The presentation must be appropriate so all of these groups understand the topic and materials being presented. Student internships reports are also shared with their site locations and must be appropriate.

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
20. Describe the importance of cultural competence in communicating public health content	EHS 575 Environmental and Occupational Health HPS 577 Sociocultural and Behavioral Aspects of Public Health	EHS 575: Students are evaluated on how they incorporate cultural competence in reflections on environmental justice and team investigations. HPS 577: Students are provided multiple lectures on cultural competence and working in public health. Students are assessed on their incorporation of cultural competence when reflecting on how a public health news story included or left out issues regarding the social or cultural context of the issue.
Interprofessional Practice*		
21. Perform effectively on interprofessional teams	Students are required to attend 2 interprofessional education activities. One activity needs to part of our health sciences interprofessional education program that includes students from medicine, nursing, pharmacy and often students from law, nutrition and students in the ASU social work program. The second can be from the health sciences or another activity that is approved by their faculty advisor.	Students are assessed on how they perform and interact with students from other fields in the IPE activity and an online form is completed and reviewed by the program instructors and their faculty advisors. MEZCOPH students are required to complete two readings in preparation for their IPE activities. These are listed below and the full documents are in **ERF D02.** Xyrichis A and Lowton K. (2008) What fosters or prevents interprofessional teamworking in primary and community care? A literature review. International Journal of Nursing Studies 45:140-153. (I am using this paper as it is highly cited and is one of those classic papers in the field.) U.S. Department of Health and Human Services. Multiple Chronic Conditions Initiative. Education and Training Curriculum on Multiple Chronic Conditions. Module 4. Interprofessional Collaboration. Washington, DC. June 2015. Faculty mentors review and approve assessments regarding how students are able to engage other health professionals in shared problem solving; their ability to respect eh privacy of community members and inform decisions by integrating knowledge and experience of other professions and ability to embrace the diversity that characterizes the health team.

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
22. Apply systems thinking tools to a public health issue	EHS 575 Environmental & Occupational Health	EHS 575: Students' Reflections are assessed on systems thinking and the paradox of sustainability.
	HPS 577 Sociocultural and Behavioral Aspects of Public Health	HPS 577: Students are assessed on how their root cause diagrams take a systems thinking approach to a health problem.
	PHPM 574 Public Health Policy & Management:	PHPM 574: Student reading reflections are assessed on they analyze how papers have incorporated or not incorporated systems thinking into public health policy and management.
	PHPM 580 Integrated Public Health Learning Experience	PHPM 580: Assignment 4 assesses students on how a systems approach can be used to address a public health solution.

3) **Include Other most recent syllabus from each course listed in Template D2-1, or written guidelines, such as a handbook, for any required elements listed in Template D2-1 that do not have a syllabus.**

Curriculum Guide for 2020-21 is located in **ERF A5.1.**
Syllabi are located in **ERF D01**.

4) **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

Not applicable.

D3. DrPH FOUNDATIONAL COMPETENCIES

D3. DrPH Foundational Competencies

The school documents at least one specific, required assessment activity (eg, component of existing course, paper, presentation, test) for each competency, during which faculty or other qualified individuals (eg, preceptors) validate the student's ability to perform the competency.

Assessment opportunities may occur in foundational courses that are common to all students, in courses that are required for a concentration or in other educational requirements outside of designated coursework, but the school must assess *all* DrPH students, at least once, on each competency. Assessment may occur in simulations, group projects, presentations, written products, etc.

1) ***List the coursework and other learning experiences required for the school's DrPH degrees. Information may be provided in the format of Template D3-1 or in hyperlinks to student handbooks or webpages, but the documentation must present a clear depiction of the requirements for each DrPH degree.***

   The MEZCOPH Curriculum Guide provides the learning experiences required for the DrPH degree. The Curriculum Guide for 2020-21 is also located in the **ERF A5.1**.

2) ***Provide a matrix, in the format of Template D3-2, that indicates the assessment activity for each of the foundational competencies. If the school addresses all of the listed foundational competencies in a single, common core curriculum, the school need only present a single matrix. If the school relies on concentration-specific courses to assess some of the foundational competencies listed above, the school must present a separate matrix for each concentration.***

Template D3-2. Assessment of Competencies for DrPH (all concentrations)

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
Data & Analysis		
1. Explain qualitative, quantitative, mixed methods and policy analysis research and evaluation methods to address health issues at multiple (individual, group, organization, community and population) levels	HPS 544 Fundamentals of Evaluation	Students are assessed on their ability to explain various quantitative, qualitative and mixed methods for evaluation through graded discussions on Evaluation Designs for Community Health Initiatives (module 7) and Outcome Evaluations and Qualitative Methods (module 9), a discussion on outcome Evaluations and Mixed Methods (module 11) and Analyzing and interpreting evaluation data (module 12).
2. Design a qualitative, quantitative, mixed methods, policy analysis or evaluation project to address a public health issue	HPS 544 Fundamentals of Evaluation	HPS 544: Materials are presented throughout the course with special emphasis in modules 7 & 13. Assessment is done with the Evaluation Project for HPS 544, a Methodology Paper. As part of the evaluation plan students are assessed on their ability to select and apply appropriate qualitative, quantitative and mixed methods approaches to assess program outcomes. This includes analysis of quantitative data about program implementation and program outcomes along with qualitative data from program directors regarding program implementation for the assignment on designing a program implementation.
3. Explain the use and limitations of surveillance systems and national surveys in assessing, monitoring and evaluating policies and programs and to address a population's health.	HPS 544 Fundamentals of Evaluation	HPS 544: Students are assessed on how they explain the use and limitations of a surveillance systems and data that are incorporated into a needs assessment for module 6 using their graded discussion # 3.
Leadership, Management & Governance		
4. Propose strategies for health improvement and elimination of health inequities by organizing stakeholders, including researchers, practitioners, community leaders and other partners	HPS 544 Fundamentals of Evaluation HPS 704 Doctoral Public Health Leadership for Health Equity	HPS 544: Students are assessed through a graded discussion in Module 3 on their strategies to engage stakeholder to develop and evaluate programs to eliminate health inequities. HPS 704: Students are evaluated on the leadership strategies that were used to introduce and advocate for a public health legislation.
5. Communicate public health science to diverse stakeholders, including individuals at all levels of health literacy, for purposes of influencing behavior and policies	HPS 704 Doctoral Leadership for Health Equity Dissertation	HPS 704: Students are assessed on their journal entry regarding communicating public health science, in which they must demonstrate how they use different language for stakeholders that have all levels of health literacy (2/27).

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
6. Integrate knowledge, approaches, methods, values and potential contributions from multiple professions and systems in addressing public health problems	HPS 704 Doctoral Leadership for Health Equity	HPS 704: Students are assessed on their journal entry regarding how they integrate multi-professional teamwork for policy, Systems and Environmental change (4/16). They also are required to take a course and complete the assessment for the WRPHTC course on "Working Interprofessionally on Obesity Care" (**See ERF D03**)
7. Create a strategic plan	HPS 704 Doctoral Leadership for Health Equity	HPS 704: Students take the WRPHTC course on "Strategic Planning" (**See ERF D03**) and attend the lecture on strategic planning. They are then assessed on the strategic plan that they create as a journal entry after their lecture (2/6).
8. Facilitate shared decision making through negotiation and consensus-building methods	HPS 704 Doctoral Leadership for Health Equity	HPS 704: Students take the WRPHTC and assessment associated with the CEU certified course for "Leadership Training: Communication and Negotiation Strategies" by Elizabeth Kent, JD (**See ERF D03**). Students also are assessed on how they would facilitate shared decision making as part of the leadership plan (3/26).
9. Create organizational change strategies	HPS 704 Doctoral Leadership for Health Equity	HPS 704: Students obtain a lecture on governmental structure and issues with a focus on organizational change strategies presented by past directors of the Arizona Department of Health Services and the Maricopa County Department of Public Health. Additionally, the WRPHTC Course on "Strategic Planning" and its assessment address organizational change. (**See ERF D03**)
10. Propose strategies to promote inclusion and equity within public health programs, policies and systems	PHPM 608A Public Health Law and Ethics	PHPM 608A: Students are presented information on strategies that are used to increase inclusion and equity within public health care programs by examining the Affordable Care Act and with public health law and ethics. Students are assessed on their ability to propose strategies to promote inclusion and equity within their appraisal of a legislative bill.
11. Assess one's own strengths and weaknesses in leadership capacities including cultural proficiency	HPS 704 Doctoral Leadership for Health Equity PHPM 569 Fundamentals of Health Budgeting & Financial Management	HPS 704: Personal Leadership Plan PHPM 569: Students are assessed on how they identify their own strengths and weaknesses with the creation of a team charter and through peer evaluations.
12. Propose human, fiscal and other resources to achieve a strategic goal	PHPM 569 Fundamentals of Health Budgeting & Financial Management	PHPM 569: Students are assessed on a quiz and with a financial exercise and a comprehensive assessment of a non-profit organization's financial health that includes recommendations for improvement.

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
13. Cultivate new resources and revenue streams to achieve a strategic goal	PHPM 569 Fundamentals of Health Budgeting & Financial Management	PHPM 569: Students are assessed on how their Business Plan leads to new resources and revenue streams. Week 7 presents lecture/activities on managing short-term resources and obligations. Students are assessed on their ability to cultivate new resources and revenues through an assignment that requires them to analyze the Accounts Receivable for the Arizona Hospital and answer the question posed. They also compile a BCG Matrix for their non-profit organization, complete an individual quiz, and participate in a graded discussion forum.
Policy & Programs		
14. Design a system-level intervention to address a public health issue	HPS 704 Doctoral Leadership for Health Equity	HPS 704: Students are required to take the WRPHTC course on "Systems Thinking For Childhood Obesity Prevention." (**See ERF D03**) Students complete an online assessment at the end of the course. (2/13) They also provide a graded system-level intervention as part of their journal entry.
15. Integrate knowledge of cultural values and practices in the design of public health policies and programs	HPS 544 Fundamentals of Evaluation	HPS 544: Lecture and class activities are presented in module 2. Students are assessed trough graded discussion in which they are required to discuss how they integrate knowledge of cultural values, and practices in the design and evaluation of public health policies and programs. Students are assessed based on their weekly journal entry.
16. Integrate scientific information, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in policy development and analysis	HPS 544 Fundamentals of Evaluation HPS 608A Public Health Law and Ethics	HPS 544: Lecture and class activities are presented in module 2. Students are assessed through graded discussion in which they are required to discuss how they would integrate knowledge of cultural values, and practices in the design and evaluation of public health policies and programs. HPS 608A: Students are required to create a legislative bill that integrates scientific information, legal and regulatory approaches, ethical frameworks and varied stakeholder interests in policy development and analysis. Furthermore, the final paper is assessed on how students evaluate legal and ethical issues related to a selected public health topic.
17. Propose interprofessional team approaches to improving public health	HPS 704 Doctoral Leadership for Health Equity	Students are required to take the WRPHTC Course and complete the assessment on "Working Interprofessionally on Obesity Care." (**See ERF D03**) Journal entry is assessed on how students propose an interprofessional team to address a community health issue.
Education & Workforce Development		
18. Assess an audience's knowledge and learning needs	HPS 704 Doctoral Leadership for Health Equity	HPS 704: Students have a lecture on communicating to the audience and their journal entry is graded on how they would assess an audience's knowledge and learning needs. (2/27)

Competency	Course number(s) and name(s)*	Describe specific assessment opportunity
19. Deliver training or educational experiences that promote learning in academic, organizational or community settings	Teaching Requirement-Teaching Assistant Preparation Workshop	TCE and Professor Evaluation
20. Use best practice modalities in pedagogical practices	Teaching Requirement-Teaching Assistant Preparation Workshop	TCE and Professor Evaluation

3) **Include the most recent syllabus from each course listed in Template D3-1, or written guidelines for any required elements listed in Template D3-1 that do not have a syllabus.**

   The most recent syllabi are located in **ERF D03**.

4) **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

   Not applicable.

D4. MPH & DrPH CONCENTRATION COMPETENCIES

D4. MPH & DrPH Concentration Competencies

The school defines at least five distinct competencies for each concentration or generalist degree at each degree level in addition to those listed in Criterion D2 or D3.

The school documents at least one specific, required assessment activity (eg, component of existing course, paper, presentation, test) for each defined competency, during which faculty or other qualified individuals (eg, preceptors) validate the student's ability to perform the competency.

If the school intends to prepare students for a specific credential (eg, CHES/MCHES) that has defined competencies, the school documents coverage and assessment of those competencies throughout the curriculum.

1) **Provide a matrix, in the format of Template D4-1, that lists at least five competencies in addition to those defined in Criterion D2 or D3 for each MPH or DrPH concentration or generalist degree, including combined degree options, and indicates at least one assessment activity for each of the listed competencies. Typically, the school will present a separate matrix for each concentration.**

   Each MPH concentration has a set of concentration-specific competencies that students develop through required concentration courses.

   Template D4-1 contains the following:

   - D4-1.1 Applied Epidemiology
   - D4-1.2 Biostatistics
   - D4-1.3 Clinical Leadership
   - D4-1.4 Environmental & Occupational Health
   - D4-1.5 Environmental & Occupational Health – Industrial Hygiene
   - D4-1.6 Epidemiology
   - D4-1.7 Family & Child Health – Maternal & Child Health
   - D4-1.8 Family & Child Health – Global Health
   - D4-1.9 Health Behavior & Health Promotion
   - D4-1.10 Health Promotion
   - D4-1.11 Health Services Administration
   - D4-1.12 One Health
   - D4-1.13 Public Health Policy & Management
   - D4-1.14 Public Health Practice

MPH Concentrations

The following matrices provide the MPH concentration core competencies and how they are assessed.

Template D4-1.1 Assessment of Competencies for MPH Applied Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Interpret and summarize findings from multiple studies to make recommendations for public health practice.	EPID 573D Analysis of Public Health Data	EPID 573D Final project: students synthesize the current literature with findings from their own analyses to identify potential recommendations for public health practice.
2. Assess components of public health surveillance and analyze relevant surveillance data to address public health problems.	EPID 573D Analysis of Public Health Data EPID 579 Applied Infectious Disease Epidemiology	EPID 573D Discussions #1, 2,4,6,7, & 17: Students will identify sources of public health surveillance data at the state/regional, national, and international levels, and identify inherent strengths, limitations and biases. Quizzes #2, 4, 6, & 7: Questions on these quizzes assess the student's ability to identify sources of publicly available public health data, and their strengths and weaknesses. All Assignments: All assignments involve students using data from NHANES to create a research question and formulate an entire scientific report. EPID 579 – In Homework 4.1 students will examine data from multiple sources used by the Centers for Disease control to track influenza. They look at time trends in the influenza data and compare data sources (ILI vs. lab confirmed influenza). In Homework 5.1, students are asked to compare and contrast different types of surveillance, including passive, active, sentinel, syndromic using the CDC assessment criteria (simplicity, flexibility, acceptability, data quality, sensitivity and predictive value positive (PvP), representativeness, timeliness, and cost/resources). In Homework 5.2 students are asked to outline the basics of a measles surveillance system in a low-income country keeping these criteria in mind. Homework 6.1 students take dengue surveillance data and analyze the overall trends over a five-year period, including testing for anomalies in transmission.
3. Assess pros and cons of different study designs and determine appropriate measures of disease frequency and excess risk.	EPID 573B Epidemiologic Methods	EPID 573B Assessment is via several assignments that outline the components of case-control studies; An assignment describing findings from cohort studies; Another assignment describing biases within study designs; An assignment designing a study then discussing and revising with classmates. Then an assignment on reliability and misclassification (also assessed on the midterm). Additional assessment is via calculations for in-class

Template D4-1.1 Assessment of Competencies for MPH Applied Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
	EPID 573D Analysis of Public Health Data	activities on study design. These concepts are then included on quizzes 1 & 2, the midterm and final. Discussions #5, 7, & 10: Students discuss potential sources of bias from available data sources. Assignments #1, 6 & 7: Students are expected to assess potential sources of bias in background literature and in their own analyses, and to calculate appropriate measures of disease frequency and excess risk. Quizzes #2, 3,4,5,6: Students are expected to assess sources of bias in assigned readings, and to assess the impact of this bias on the reported findings.
4. Use public health data sources and collected data to answer applied epidemiological research questions.	EPID 573B Epidemiological Methods EPID 573D Analysis of Public Health Data EPID 579 Applied Infectious Disease Epidemiology	EPID 573B Assessment is via designing a survey that is used to collect data. Students analyze data collected from similar surveys by previous students. EPID 573 D Assignments #2, 4, 5, & 6: Through these assignments, students use NHANES data to answer applied epidemiological research questions. Final Project: Students finalize and put together their scientific report using public health data answering an applied epidemiological research question that they formalized on their own, with approval from the instructor. EPID 579 Homework 4.1 Students conduct analyses of determinants of vaccine coverage using the WEAT data.
5. Interpret analyses in the context of published literature and communicate key findings to stakeholders.	EPID 573B Epidemiological Methods EPID 573D Analysis of Public Health Data EPID 579 Applied Infectious	EPID 573B Partial assessment is via drafting aspects of a manuscript based on analysis of survey data. EPID 573D Assignment #6 & 7: Students interpret the results of the analyses they conduct in light of the published literature, and of the strengths, limitations, and potential biases of the study design. They then communicate the implications of their findings more generally for public health. Quiz #6: Students are expected to identify potential sources of bias in assigned readings, and to describe and identify the level and type of evidence that would warrant informing health policy. Final project: Students interpret the results of the analyses they conduct in light of the published literature, and of the strengths, limitations, and potential biases of the study design.

Template D4-1.1 Assessment of Competencies for MPH Applied Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
	Disease Epidemiology	EPID 579 Assignment: Homework 2.1, students will examine current literature regarding a sexually transmitted disease and will examine the level of transmission in their home state or country.

Template D4-1.2 Assessment of Competencies for MPH Biostatistics		
Competency	**Course numbers**	**Describe specific assessment opportunity**
1.Match appropriate research designs to the needs of various studies and be able to explain the limitations of implemented designs.	BIOS 647 Analysis of Categorical Data	BIOS 647 – Homework assignments assesses students' ability to select appropriate research designs and to explain the limitations of each design.
2. Utilize appropriate statistical tools to address specific scientific questions.	BIOS 647 Analysis of Categorical Data BIOS 576C Applied Biostatistics	BIOS 647-Final exam assesses students' ability to identify appropriate statistical tools for analyzing public health categorical data. BIOS 576C- An individual project requires students to work on a practical data management assignment with an investigator to identify appropriate statistical tools and develop a detailed statistical analysis plan (SAP) that must be reviewed and approved by the investigator; conduct analysis of the data using the SAP, write the report, and make an oral presentation.
3. Explain statistical concepts and findings to a general scientific audience.	BIOS 576C Applied Biostatistics	BIOS 576C- As part of the individual project, each student makes a 10-15-minute presentation followed by a question and answer session. This assignment assesses students' presentation skills and their ability to explain statistical concepts and findings to a general scientific audience. BIOS 576C- Group project requires one presentation on: either a statistical analysis plan (with preliminary descriptive statistics) or a progress report.

Template D4-1.2 Assessment of Competencies for MPH Biostatistics		
Competency	**Course numbers**	**Describe specific assessment opportunity**
4. Conduct appropriate data management to handle a variety of practical problems in data format and structure.	BIOS 576C Applied Biostatistics BIOS 576D Data Management and the SAS Programming Language	BIOS 576C- Individual and group project assignments assess the extent to which students demonstrate skills in data management. BIOS 576D-Homework assignments are assessed on how well students have managed data for SAS or STATA. For each problem assigned, students turn-in their final successful code and output.
5. Apply computer systems and appropriate software to address statistical problems.	BIOS 576D Data Management and the SAS Programming Language BIOS 647 Analysis of Categorical Data	BIOS 576D- Final exam: Using SAS, students must graph and compare the probability distribution of key variables and interpret the meaning of their shape. Students interpret the results of statistical tests for statistical significance and clinical significance. BIOS 647-Studetns are required to use computer systems to analysis categorical data. BIOS 909-The MPH project is evaluated on how well they have used statistical programs to carry out their applied projects.

Template D4-1.3 Assessment of Competencies MPH Clinical Leadership		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Describe contemporary issues and trends where public health and medicine intersect, with an emphasis on traditional public health roles, healthcare systems, and health disparities.	PHPM 570 Issues and Trends in Public Health	Weeks 1-14- Attendance, writing and presenting a paper describing a current public health issue and proposed solutions, final exam addressing current public health problems. Class paper needs to describe a current public health problem and propose solutions based on information learned during class.
2. Engage in leadership roles and opportunities for physicians in public health at the local, state, or national level.	PHPM 570 Issues and Trends in Public Health	Weeks 1-14- Attendance in class, interacting with and sharing contact information with speakers who hold leadership positions in PH, presenting paper to the class. Student presentations will be timed and graded, practicing a leadership role that they will need to provide public health recommendations to groups outside of a patient visit. The presentation will need to provide concise specific recommendations regarding a current public health issue.
3. Apply public health principles to develop solutions to real life public health issues	PHP 572 Applied Public Health Practice	Weeks 3-14 Class attendance and in-class problem solving group sessions Presentation of Epidemiological paper is used to describe and propose solutions to a health issue for the Final Paper.
4. Evaluate the practicality of and evidence to support proposed public health interventions	PHP 572 Applied Public Health Practice	Required class paper. Final paper needs to include potential interventions to address a public health problem.
5. Be able to analyze the administrative, management, legal regulatory, and financial issues required to assume a leadership role in health care or public health organizations.	PHPM 696i Clinical Leadership and Administration	Weeks 2-6- Classes and assignments cover legal regulatory issues, quality, resources, leadership, strategic planning, and facility design and management Students will apply all course concepts via case-based consulting simulations. Findings will be presented in a narrated PowerPoint® presentation.
6. Demonstrate the ability to complete a community health assessment and prepare a public health intervention based on identified community needs.	PHPM 696i Clinical Leadership and Administration	Attend lecture on community assessment, complete the community health assessment assignment Student teams will perform a community health assessment and then recommend a community-specific public health intervention. Findings will be presented in a formal class presentation. Each team member's contributions to the project will be evaluated by

		other team members. These scores will be applied to the individual final project grades.

Template D4-1.4 Assessment of Competencies for MPH in Environmental and Occupational Health		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Classify the major types of chemical, physical and biological exposure agents capable of inducing disease in the public.	EHS 584: Fundamentals of Industrial & Environmental Health EHS 502: Environmental Monitoring and Analysis	Weeks 1-10, reading reflections are graded based on how students have identified and classified the major types of exposures. Week 11 – Written Assignment "Get to Know a Worker" is assessed on how students include major types of exposure agents in relation to workers Post laboratory assignments 5, 6, and 7 are graded on how exposures are related to health outcomes. The following are three selected assignments that assess for chemical, physical and biological exposure agents capable of inducing disease in the public including; • Water Chemical post lab assesses water chemical contaminates resulting from the Gulf coast oil spill. • Fomite post lab assesses biological contaminates capable of causing disease in the home environment. • Water Biological post lab assesses water contamination that the public is exposed to.
2. Implement strategies for evaluating or measuring exposure to chemical, physical and biological agents.	EHS 653: Applied Exposure Assessment	Student presentations and a final report are assessed on their strategies for evaluating exposures including presentation of site visit #2, discuss sampling plan, exposure calculations and hazard ranking for processes (Week 7). At the end of the semester (Week 15-16) students present the results of their own exposure measurements, their data analysis and the interpretation. Students are assessed how well they followed their approved protocols to collect the proposed data and their data analysis.
3. Utilize appropriate technical approaches for conducting environmental and industrial assessments.	EHS 653: Applied Exposure Assessment	Students write a proposal that is assessed on how they would utilize technical approaches for conducting assessments. Students are required to work in teams to conduct their own applied exposure assessment where they develop a comprehensive hazard assessment for the UA San Xavier Mine or other UA worksite (architecture, art studios, compost facility) and generate a formal exposure assessment, documenting the process, materials used, and potential hazards. Their proposal is assessed (Week 8) based on the ability to justify the hazard they have selected and propose the appropriate sampling protocol and study design.
4. Utilize various sources of information to identify chemicals commonly employed in industry and their toxicity.	EHS 584: Fundamentals of Industrial & Environmental Health	Students are assessed on how they utilize sources of information on chemicals through two assignments: Written Assignment "Get to Know a Worker" (Week 11) and a Written Assignment "Current Topics Paper (Week 15) and a "Scientific Article Review".

5. Analyze the base mechanism of toxicity and potential health effects and diseases caused by various chemical agents.	EHS 502: Environmental Monitoring and Analysis	Students are assessed on how they describe and analyze base mechanisms of toxicity in their Water, Chemical and Gas/Vapor Post lab assignments in Lab 2 and 4.

Template D4-1.5 Assessment of Competencies for MPH in Environmental and Occupational Health – Industrial Hygiene		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Identify and assess agents, factors, and stressors generated by unit operations on workplace safety	EHS 502 Environmental Monitoring and Analysis	EHS 502: Laboratory project 3 assess on how students identify stressors in air, water, and biological system. Students are required to complete air sampling for formaldehyde and particulate matter in an office and/or cadaver lab setting.
	EHS 522 Introduction to Occupational Safety	EHS 522: Week 8 assignment is assessed on how students identify agents and factors of motor vehicle, walking and working, and welding safety. Students are provided a scenario to identify what hazards (agents, factors, and stressors) are presents in the scenario, what OSHA standards apply, and how it generates a hazard for a human.
	EHS 653 Applied Exposure Assessment	EHS 653: Final project is assessed on how students identify agents, factors, and stressors generated at workplace. Students are required to work in teams to conduct an applied exposure assessment where they develop a comprehensive hazard assessment for the UA San Xavier Mine or other UA worksite (architecture, art studios, and compost facility) and generate a formal exposure assessment, documenting the process, materials used, and identify the potential hazards that pose the greatest risk. The hazard assessment includes quantitative exposure assessment and analysis of the results (Week 3-17). Previous projects have included exposure assessments of metals, VOCs, noise, vibration, and microbial quality of water.
2. Describe qualitative and quantitative aspects of generation of agents, factors, and stressors	EHS 655 Control of Occupational Exposures	EHS 655: Homework # 1 assignment is assessed on how students describe generation and controls of agents and stressors qualitatively and quantitatively. Students are provided a scenario where they are required to calculate generation gas and time it takes for a full tank of gas to evaporate. In addition, students are required to discuss the numerical answer considering the distribution of the point estimate.
	EHS 653 Applied Exposure Assessment	EHS 653: Two assignments are focused on calculation of exposure through modeling. For the first assignment (Exposure Calculations and

		Hazard Rankings) students use preliminary data gathered at the UA San Xavier Mine, from previous reports or from the scientific literature to estimate exposure to two different hazards that they identified during their site visits. They then critically evaluate the estimates of their other group members, and use all the exposure estimates to rank the hazards for future evaluation. The second assignment has students use the model CONSEXPO from RIVM to evaluate exposures and potential health risks from two different epoxy products. The students then use the model to determine methods of reducing exposure and provide recommendations.
3. Understand and explain the physiological and/or toxicological interactions of physical, chemical, biological, and ergonomic agents, factors, and/or stressors with the human body	EHS 510 Physical Exposures EHS 553 Toxicology and Chemical Exposures	EHS 510: Periodic quizzes (3 per semester) are used to assess how students apply principles of Occupational Hearing Conservation, including the interaction of physical and chemical stressors and the health effect of sensorineural hearing loss. EHS 553: Midterm 2 is assessed on how students understand Respiratory-, Neuro-, Immuno-Toxicology in the following sample questions; • Both n-hexane the methyl-n-butyl ketone are known to causes peripheral neuropathy. Why? Be Specific • If a person exposed to toluene and methylene chloride developed peripheral neuropathy, would the mechanism of toxicity be the same as for n-hexane? Please explain • What are the two main measurements in spirometry and how are they used to diagnose disease? • Differentiate between occupational asthma and hypersensitivity pneumonitis. • Describe two defense mechanisms of the lung • What are two main potential health effects of exposure to diisocyanates?
4. Assess chemical exposure assessments and dose-response based on applicable pathways and modes of entry	EHS 553 Toxicology and Chemical Exposures	EHS 553: Midterm 1 is assessed on how students assess dose-response in exam example. Students are required to; • Describe at least four methods as possible for estimating the concentration to which humans may have been exposed of a chemical released during a hazmat incident • Give an example of a highly water-soluble irritant gas and an example of a low water-solubility irritant gas and describe the difference in their clinical presentations

	EHS 653 Applied Exposure Assessment	• Name what each of the letters stands for in the pharmacokinetic acronym ADME and provide an example of a chemical or exposure characteristic that affects each of these steps • Estimate vapor pressure and maximum concentration (at standard room temperature and at sea level) that xylene would reach in the air if an excessive volume were spilled in a confined space and whether this concentration would exceed the PEL. • Which organ system(s) are most affected by exposure to metallic mercury at a) high and b) low concentrations EHS 653: Final project is assessed on how students measure or estimate exposures and the potential health risks in the workplace. Final project is assessed on how students identify and prioritize agents, factors, and stressors generated at workplace and select the appropriate protocols and techniques to quantify the exposures and interpret their result. Students are required to work in teams to conduct their own applied exposure assessment where they develop a comprehensive hazard assessment for the UA San Xavier Mine or other UA worksite (architecture, art studios, compost facility) and generate a formal exposure assessment, documenting the process, materials used, and potential hazards. The exposure assessment includes quantitative exposure assessment and analysis of the results (Week 3-17). Previous projects have included exposure assessments of metals, VOCs, noise, vibration, and microbial quality of water. Students are required to compare their results to appropriate regulatory guidelines based on the route of exposure as available.
5. Recommend and evaluate engineering, administrative, and personal protective equipment controls and/or other interventions to reduce or eliminate hazards.	EHS 510 Physical Exposures EHS 653 Applied Exposure Assessment	EHS 510: Periodic quizzes (3 per semester) are used to assess students' ability to recommend and apply noise controls. EHS 653: Final project is assessed on how students recommend and evaluate controls in the workplace based upon the results of their individual exposure assessments and their overall comprehensive hazard assessment. Students provide the partnering worksites with ranked set of recommendations for controlling exposures, interventions or future exposure assessments.

	EHS 655 Control of Occupational Exposures	655: Weekly assignments are assessed on how students recommend and evaluate controls for chemical, physical, and biological agents.

Template D4-1.6 Assessment of Competencies for MPH in Epidemiology (EPID)		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Search, describe and summarize findings from the scientific literature to describe the epidemiology of a public health problem, identify health disparities and identify risk factors.	EPI573a Basic Principles of Epidemiology EPID 573C - Advanced	EPID 573A Poster Project – students select a health condition, research the literature to describe the biology of the condition, the prevalence & incidence, risk factors, and spatial and temporal variations in risk. Students' findings are presented in an in-class poster session. EPID 573C - Course Project: In the course project, students will do a literature search and review on a selected public health topic for their course project and present their findings in class as well as summarize the findings in their paper as the final for the course. The dataset will be drawn from the nationwide Women's Health Initiative. Student-led review: Students will work on a critical public health issue to understand the literature and scientific evidence related to guideline or policy developments on the issue.
2. Compare the relative strengths and weaknesses of epidemiological study designs, and choose the most appropriate design for specific research questions.	EPID 573B Epidemiologic Methods	EPID 573B Assessment is via Assignments1-4: outline the components of case-control studies; Assignment 5 describing findings from cohort studies; Assignment 6 describing biases within study designs; Assignment 7 designing a study then discussing and revising with classmates. These concepts are then included on quizzes 1 & 2, the midterm and final.
3. Develop and implement a data analysis plan using a data set to select appropriate variables to compare measures of disease frequency and excess risk.	EPID 573C Advanced Epidemiology	EPID 573C Homework 1: Students will use a simulated dataset to compute disease frequency, relative risk, absolute risk and attributable risk as well as to address a research question. Course Project: Students will compute disease frequency and excess risk following their data analysis plan.
4. Assess the impact of potential biases, confounding, and effect modification that can affect epidemiological studies and analyses.	EPID 573B Epidemiologic Methods EPID 573C – Advanced Epidemiology	EPID 573B Assessment of bias within study design issues listed in Assignment 8 on reliability and misclassification (also assessed on the midterm). Assessment of confounding and effect modification is via Assignments 10-17 including calculating crude, stratum specific and adjusted ORs/RRs by hand and using logistic regression techniques along with interpreting models presented in published papers and from STATA and SAS output. This material is also assessed on quizzes 3 & 4 and the final exam. EPID 573C - Course Project: In the course project, students will identify, address and discuss potential biases, confounding and effect modification that affect their analyses and findings. Midterm: Students will read a published epidemiological research paper and provide critiques on the study including

		potential biases, confounding and effect modification that can affect the findings of the study. Student-led review: Students will work on a critical public health issue to understand the literature and scientific evidence for guideline or policy developments pertaining to the issue. Students will address potential biases, confounding, and effect modification that can affect epidemiological studies and analyses used for the guideline or policy development. Homework 2: Students will use a simulated dataset to identify, recognize and describe potential biases, confounding, and effect modification that can affect epidemiological studies and analyses.
5. Interpret epidemiological analyses in the context of published literature and communicate key findings to various audiences.	EPID 573B Epidemiologic Methods EPID 573C Advanced Epidemiology	EPID 573B Assessment is via interpreting models presented in published papers and from STATA and SAS output. This material is also assessed on quiz 4 and the final exam. EPID 573C Course Project: In the course project, students will write an abstract, give a presentation in class and write a final paper to interpret these epidemiological analyses for communicating with different audiences regrading key findings.

Template D4-1.7 Assessment of Competencies for MPH in Family and Child Health – Maternal and Child Health		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Discuss the origin, development and purpose of maternal and child health programs in the US and globally, including the Title V Block Grant Program.	HPS 586 Maternal and Child Health	Homework assignment #1 assesses the extent to which students are able to discuss the origin and timelines in development of maternal and child health programs in the US and globally, including the Title V Block Grant Program. Exam 3 assesses the extent to which students are able to describe the purpose of MCH Title V Social Security Act of 1935.
2. Analyze the strengths and weaknesses of interventions that address the major global health issues for women and children in low- and middle-income countries (LMICs).	HPS 586 Maternal and Child Health	Student groups evaluate a case study and then individual students write a paper on the strengths and weaknesses of a global health intervention that addresses an MCH issue in LMICs.
3. Integrate the anatomy/physiology, incidence/prevalence, risk factors/exposures, and spatial or temporal variations in risk of an MCH health issue to design and interpret epidemiological approach for a specific MCH research question.	EPID 630 MCH Epidemiology	Students are required to complete a writing assignment in which they: research a maternal and child health relevant health condition, describing the anatomy/physiology, incidence/prevalence, risk factors/exposures, and spatial or temporal variations in risk; provide an evaluation of how these specific details of the condition affect the design and interpretation of epidemiologic work on the condition.
4. Analyze how potential biases, confounding, and effect modification that can affect the interpretation of MCH interventions.	EPID 630 MCH Epidemiology	Individual students will lead the class in discussion of a published paper on a community-based intervention to analyze how factors can bias, confound, and modify the measures MCH and determine if these factors have a positive, neutral or negative result.
5. Discuss how the life course perspective is used to understand the health of women and children at different ages.	HPS 586 Maternal and Child Health	Exam 2 and 3 cover specific aspects of the life course perspective when studying MCH health issues.

D4-1.8 Template Assessment of Competencies for MPH in Family and Child Health-Global Health		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Develop governmental policies to improve the health of populations in low and middle incomes countries.	EPID 606 Changing Health Policy: Cultural Understanding and Epidemiology Analysis	EPID 606: Semester long, intensive group project involving: a review of the literature on relevant global MCH epidemiology and policy; report submission and in-class presentation; selection of an MCH topic area for their policy development; development of a proposal for an MCH policy implementation and evaluation project, incorporating their country-specific demography and health survey (DHS) data and information from the literature review; presentation and defense of the proposal to a mock "legislative session" of individuals familiar with their selected country.
2. Identify the relationships among patterns of morbidity, mortality, and disability with demographic and other factors in shaping the circumstances of the population of a specified community, country, or region.	HPS 533 Global Health	HPS 533: Students write a reflection paper related to population health in an LMIC and must utilize demographic information when preparing their professional learning logs when justifying evidence-based policy recommendations. Additionally, students complete a major group work on population health that requires them to demonstrate skills in using available data sources to analyze population health. Students conduct analyses of major course of morbidity, mortality and disability in several low- and middle-income countries, present their findings for discussion and feedback in class, and submit a final report.
3. Conduct situation analysis across a range of cultural, economic, and health contexts.	HPS 533 Global Health	HPS 533: Each student writes a summary of a situation analysis for a governing body that results from their group project on population health. Group debate. The class is divided in several groups that debate for, or against, specific global health topics that relate to cultural, economic, and health contexts. Each group is allowed to use supporting materials to convey their arguments, including evidence from empirical studies, video clips, power-point slides, pictorial demonstrations, or other learning aids. Grading focuses on evidence of preparation, Strength of the argument, Strength of evidence supporting argument, opposing views were well rebutted based on evidence, Professionalism (ability to respect the views of others while presenting counter arguments based on evidence, and overall quality of presentation.
4. Analyze the strengths and weaknesses of interventions that address the major global health issues for women and children.	HPS 560 International Nutrition.	HPS 560: Students work in teams of two to write what a systematic review term paper on a strategy for improving the nutritional status of a population within low- and middle-income countries following PRISMA Guidelines. Students present their report of the review to their peers and professors. Each student writes an individual summary of their personal analysis which is used to assess how they analyze international nutrition interventions.

5. Design health advocacy strategies.	HPS 533 Global Health	HPS 533: Advocacy memo assignment requires each student to develop advocacy briefs related to a specific policy or program of an international development agency of their choice. Students are required to provide a short analysis and recommendations for action related to their chosen topic. The memo addresses the basic scientific/technological facts and context that underlie the topic, present the policy/programming options, recommended action(s), and references or other supporting evidence.

Template D4-1.9 Assessment of Competencies for MPH Health Behavior and Health Promotion		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Develop an evaluation plan related to a public health program.	HPS 532A Applied Aspects of Program Planning, Implementation, and Evaluation I.	HPS 532A: Upon completion of the course students turn in a completed program and evaluation plan developed in collaboration with community partners. Plan must articulate factors that facilitate or hinder program development, design and success, as well as demonstrate skills in working with community members as equal partners in the development of public health programs. Plan assessment considers the extent to which students demonstrate skills in working across disciplines and with non-traditional partners in public health.
2. Use theory to frame program design and evaluation.	HPS 532A Applied Aspects of Program Planning, Implementation, and Evaluation I	HPS 532A: Students complete an assignment on use of theory to develop program implementation and evaluation plan as part of the final evaluation plan. .
3. Apply ethical principles to public health program planning, implementation and evaluation.	HPS 535 Multicultural Health Beliefs	HPS 535: Students are required to complete (i) a culturally tailored health needs assessment on the health status and needs of a specific ethnic/cultural population in a selected community. They use this information to (ii) develop a culturally tailored health education/promotion program plan that addresses one specific health need as identified in the health assessment. Students use data from the Needs Assessment, as well as a variety of peer-reviewed, evidence-based and professional literature to develop a relevant health education/promotion program.
4. Evaluate the evidence for the effectiveness of public health promotion programs or practices.	HPS 531 Contemporary Health Issues and Research	HPS 531: Students complete a systematic review paper in which they evaluate evidence of effectiveness of selected health promotion programs or practices.
5. To articulate principles for the evaluation of the validity of health behavior-related measures.	HPS 531 Contemporary Health Issues and Research	Students will evaluate threats and controls to validity of quantitative and qualitative methods and measures in their Group Case Study Written Response and Written Article Critique in the middle of semester and Term Paper at the end of the semester

Template D4-1.10 Assessment of Competencies for MPH in Health Promotion		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Discuss multiple dimensions of the policy [re: intervention] -making process, including the roles of ethics and evidence.	HPS 531 Contemporary Health Issues & Research;	HPS 531: Students complete an evidence-based review in which they are required to select a topic area of interest and explore a specific health promotion question within it. Students are required to address five core sections in their review, including topic background and justification for the health promotion question, assessment of current state of evidence, reflection on implications for future research, reflection on implications for public health practice, and conclusion.
2. Apply ethical principles to public health program planning, implementation and evaluation.	HPS 535: Multicultural Health Beliefs	Students are required to complete (i) a culturally tailored health needs assessment paper. Students will assess and submit a written culturally tailored health needs assessment on the health status and needs of a specific ethnic/cultural population in a selected community, and (ii) students use data from the needs assessment, as well as a variety of peer-reviewed, evidence-based, and professional literature to develop a relevant health education program.
3. Articulate the importance of using needs assessments to inform health promotion efforts.	HPS 532P Planning of Public Health Programs	Students develop a health promotion plan that requires them to apply health needs assessment data in program development and implementation.
4. Apply program evaluation strategies for health promotion.	HPS 532E Evaluation of Public Health Programs	A Student's final evaluation design paper is assessed on how it details program evaluation methodology for an actual program.
5. Describe the application of action plans, theories of change, and timelines to program implementation.	HPS 532P Planning of Public Health Programs	Students' health promotion plan assignment is assessed on the extent to which it demonstrates ability to develop and apply program of action plans, theories of change, and implementation timelines.

Template D4-1.11 Assessment of Competencies for MPH in Health Services Administration		
Competency	**Course number(s) and name(s)**	**Specific assignment(s) that allow assessment**
1. Analyze the organization, financing, and delivery of health services, and public health systems in the US	PHPM 507 Health Economics and Policy	Students are assessed on how they analyze quantitative and qualitative data to exam policies for their impact on public health and health equity, using a final comprehensive exam and a graduate research project.
2. Analyze quality improvement practices as a means to improve health outcomes	PHPM 561 Introduction to Health care Quality and Safety	Students are assessed on how they analyze and develop, as a group, a plan to improve a quality problem and monitor results in fictitious public health or health care organization. The individual effort will be evaluated through participation during class discussions, and team peers' evaluations.
3. Apply the tools and methods used by Health Care Organizations to assess financial health.	PHPM 569 Fundamentals of Health Budgeting and Financial Management	Students are assessed on how they prepare, as a team, a financial health assessment for a non-profit organization, by applying Budgeting and Financial Management tools and methods. For individual evaluation, each team member must specifically state his/her contribution to the assignment. Team peer evaluations are also required of each team member, which is part of the course grade.
4. Apply legal frameworks to analyze public health problems.	PHPM 608A Public Health Law and Ethics	Students are assessed on how they evaluate legal and ethical issues related to a selected Public Health topic, using an individual Final Paper and Presentation.
5. Evaluate the administrative practices and processes required to operate health care organizations.	PHP 641 Health Systems Delivery	Students are assessed on how they develop an evaluation of the administrative practices and processes of a health care organization, through an individual final presentation.

Template D4-1.12 Assessment of Competencies for MPH in One Health		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Articulate appropriate methods and data sources to investigate the interdependency and interconnectedness of humans, animals, and the environment in health and disease development.	EPID 679 - One Health Applications and Practice	In the final 'Wicked Problems' project, students are assessed on their ability to assess a One Health problem using multiple data sources. They are also assessed on the extent to which they are able to draw from a variety of disciplines in their presentation of the problem and its proposed solution.
2. Develop strategies to address One Health challenges by engaging researchers across multiple disciplines and stakeholders with diverse perspectives, motivations, and economic incentives.	EHS 525 Global to Local: Environmental Change and Human Health	EPID 679: A term project paper and presentation requires students to collaborate with a public health organization of their choice to inform the development of plans and/or interventions aimed at addressing a health impact of climate change. Students will form into groups of 2-3 students and work with one of the following organizations: National Association of City and County Health Officials (NACCHO), Pima County Health Department, and UA College of Agriculture and Life Sciences. Project deliverables will include: a) Development of stakeholder and topic specific literature review, implementation framework, and/or assessment tool. b) Creation of a professional conference quality poster. c) Presentation of project findings to a college and stakeholder audience. Students are individually assessed by means of a one-page report in which they provide a summary/reflection of their experience with the project.

Template D4-1.12 Assessment of Competencies for MPH in One Health		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
3. Identify and implement appropriate methods to integrate and analyze data on animals, humans, and the environment to identify and quantify One Health problems and/ or evaluate solutions.	EPID 679 - One Health Applications and Practice EHS 518: Introduction to Quantitative Human Health Risk Assessment	EPID 679: For the 'Wicked Problems project' students are assessed on their ability to identify source of data, the extent to which they are able to describe the feasibility of merging disparate data sources and describe ways these data could be used in conjunction with one another to address their chosen problem. In addition to the written proposal and a presentation, each student is required to submit a one-page report in which they provide a summary/reflection of their experience with the project. EHS: 518: Students using three home-work assignments that require them to: i. develop and utilize dose response curves to predict health outcomes. Students conduct their own curve fitting exercise and evaluate published dose-response curves. ii. search the literature for information on chemical exposure potentials and exposure assessment data to characterize chemical intake risks. Students construct and implement their own exposure intake calculations and compare with current or proposed regulatory maximums. iii. program and apply Monte Carlo simulation software to characterize human exposure potentials.

Template D4-1.12 Assessment of Competencies for MPH in One Health		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
4. Describe sentinel events in humans, animals, and the environment for detection of hazardous exposures and prevention of long-term negative effects.	EPID 660: Introduction to Infectious Disease Epidemiology	EPID 660: Homework assignment on investigation of outbreaks assesses Students ability to investigate one of five listed pathogens that can lead to significant outbreaks, namely: Influenza – human or avian, Ebola, Measles, Dengue, and Cholera. This assignment required students to first subscribe to ProMed - https://promedmail.org/, an outbreak aggregator of information from the infectious disease community. Using data obtained, students describe geographic area of the outbreak, time-frame of the outbreak, number of cases total. They create a monthly summary of the case data during the outbreak and plot the outbreak curve. They analyze risk factors at the individual, household, community, and societal levels, and propose control measures.
	EPID 596D Public Health Experience – Student Epidemiology Response Team (SAFER).	EPID 596D: Students are assessed by means of various hands-on exercises that include the following: -completion of video and power point trainings on outbreak investigation; -completion of a lab-based survey training; -attendance at outbreak investigation training sessions at county and state health agencies; -submission of 3-5 questions related to outbreak investigation; -participation in a two-hour session each month to work at the call center for routine enteric investigations or outbreak responses; -submission of a literature review on outbreak occurrence and containment; -Construction of an outbreak investigation questionnaire and administration of the same; -completion of a pandemic flu exercise at the Maricopa County Dept of Public Health in Phoenix; -oral presentation detailing project experience.
	EHS 518: Introduction to Quantitative Human Health Risk Assessment	EHS 518: Students are assessed by means of homework assignments that require them to search the literature for information on chemical exposure potentials and exposure assessment data to characterize chemical intake risks. Students construct and implement their own exposure intake calculations and compare with current or proposed regulatory maximums. Students are also required to program and apply Monte Carlo simulation software to characterize human exposure potentials.

Template D4-1.12 Assessment of Competencies for MPH in One Health		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
5. Appraise ecosystem changes and impacts that affect human, animal and planetary health	EPID 660 - Infectious Disease Epidemiology	EPID 660: Homework assignment on global change and infectious disease dynamics requires students to select of five exposures: urbanization, biodiversity loss, population growth, climate change, globalization, and any infectious disease. They are required to draw the transmission cycle of your selected pathogen and discuss the pathways by which they believe that their exposure of interest could influence the transmission dynamics of your selected pathogen. They then identify key populations that will be impacted by these changes and describe at least two potential interventions or factors that may mitigate the influence of the exposure on the transmission of the selected pathogen.

Template D4-1.13 Assessment of Competencies for MPH in Public Health Policy and Management		
Competency	**Course number(s) and name(s)**	**Specific assignment(s) that allow assessment**
1. Use evidence-based concepts to critique the financing and delivery of medical services in the United States.	PHPM 510 The US Health Care System	Students' ability to use evidence-based concepts to critique healthcare financing and delivery, including items such as the Cost of Health Care, Capitation, Cost-Shifting, Medicaid, Medicare, Tax Policies, and Long-term Care, is assessed through four assessments (3AB – 6AB).
2. Provide leadership in public and private organizations; manage programs and projects; and utilize critical thinking, systems thinking, and self-reflection to resolve technical problems, ethical challenges and interpersonal conflicts.	PHPM 567 Public Health Leadership & Management	Students are assessed based on their performance on a 360-degree leadership assessment. Additionally, they are assessed on their performance on leadership quizzes and self-reflection (weeks 2-14), a dialectical and crucibles of leadership paper (written assignment week 10), and final exam (week 16).
3. Construct and interpret budgets using standard finance principles.	PHPM 569 Fundamentals of Health Budgeting and Financial Management	Students complete and are assessed on their ability to complete the following activities: development of a budget, development of a cash distribution problem, answer budget problems, work on capital budgeting and financing, compose score cards for a non-profit agency, and conduct a financial audit. They integrate this knowledge from these activities into a final paper and project presentation. Individually, students are assessed through weekly assignments and quizzes (Wk1: #6, Wk2: #3, Wk3: #2, Wk4: #2,W 5: #2,Wk6-Wk11: #3, Wk 12: #2,Wk13: #2,Wk15 #1-2, Wk 16: #1)
4. Describe the state and federal processes that govern the delivery of health services.	PHPM 510 The US Health Care System	Students are assessed on their ability to describe federal, state, and local processes that govern the delivery of health services with Assignments 5AB – 6AB, Quizzes 3.1, 3.2, 3.3, 4.1, and 4.2, and Unit Exam 3.
5. Collaborate with local advocacy groups, analyze public health problems, formulate legislative solutions, and develop evidence-based recommendations that justify government intervention.	PHPM 696P Public Health Policy and Management Field Course	Students are assessed on their ability to provide service to community partners in the form of a specific deliverable related to a policy goal (e.g., policy brief, data visualization, community outreach plan, etc.). Individually, students are assessed through a written assignment that tests their knowledge of legislative approaches to health care solutions and their ability to provide legislative recommendations. (Week 17).

Template D4-1.14 Assessment of Competencies for MPH in Public Health Practice		
Competency	**Course number(s) and name(s)**	**Specific assignment(s) that allow assessment**
1. Evaluate the business practices of non-profit organizations required for solvency.	PHPM 569 Fundamentals of Health Budgeting and Financial Management	Students will create and assess various types of budget and forecasting methods, and perform cost analysis through weekly assignments and quizzes. For assignments performed in teams, each member must specifically state his/her contribution to the assignment. Team peer evaluations are also required of each team member, which is part of the course grade.
2. Utilize demographic analyses to determine how population shifts affect current and future health statistics.	PHP 527 Demographic Analysis	The assignments and paper assessments and exercises for this competency are from lessons 7, 11-15. Students write papers describing population changes for selected demographic situations (marriage, fertility, and migration); Students construct a life table and contrast different life tables.
3. Analyze management and regulatory requirements that impact the delivery of medical care in the U.S.	PHP 641 Health Systems Delivery	Students are assessed by their ability to analyze current administrative issues, making recommendations and providing advice to a fictitious new health care CEO regarding U.S. medical care delivery.
4. Compare the strengths and weaknesses of organizational structures within local governmental, non-profit and community entities.	PHP 696V Public Health Practice Seminar	Students are assessed on how they present, based on their Community Outreach Experiences, a comparison of the organizational structures of a variety of Public Health related agencies.
5. Design and submit a proposal for a small-scale population-based intervention with a limited budget that addresses global health issue.	HPS 529 Project Design and Implementation in Global Health	Students are assessed on how they design an intervention by having a final paper that needs to include a population-based program and intervention. Students write proposals that also need to design an intervention.

The following matrices (Template D4-1.15 and Template D4-1.16 provide the 2 core areas of study for the DrPH and how they are assessed.

DrPH Concentrations

Template D4-1.15 Assessment of Competencies for DrPH Maternal and Child Health		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Evaluate and present issues that would be appropriate for developing healthy child care policies.	HPS 682 Women and Children's Health Policy	Students are assessed on their written reflection and in class discussion regarding their understanding of child care and its association with health and school preparedness.
2. Evaluate how national policies and programs affect maternal and child health.	HPS 682 Women and Children's Health Policy	Students are individually assessed on a series of reflections regarding national programs specific to maternal and child health including Title V programs, SNAP, Insurance and policies and programs related to reproductive health.
3. Apply and integrate appropriate measures of maternal and child health with behavior change theory into a study design for research study or a program evaluation.	HPS 620A: Advanced Research Methods in Health Promotion I	Each student's research proposal is assessed on the use of appropriate measures of maternal and child health integrated with behavior change theory into a study design for research study or a program evaluation.
4. Demonstrate the ability to use MCH knowledge to develop and advocate for an MCH policy or program.	HPS 565: Public Health Advocacy	Students are assessed on individual assignments that have students advocate for an MCH policy or program by writing an op-ed and giving an elevator speech that supports their issue.
5. Create a plan to use community-based participatory research (CBPR) to develop an MCH project.	HPS 605: Community-based Participatory Research to Decrease Health Disparities	Students' CBPR proposals are evaluated on how it develops an MCH project.

Template D4-1.16 Assessment of Competencies for DrPH in Public Health Policy and Management		
Competency	**Course number(s) and name(s)**	**Specific assignment(s) that allow assessment**
1. Construct a policy proposal addressing a contemporary health policy issue at the state or federal level.	PHPM 617: Advanced Public Health Policy Analysis	Students are assessed by means of a policy proposal addressing a contemporary health problem, using a state or federal legislative or regulatory health policy. The policy proposal must include how federal legislation and regulations affect population health.
2. Apply systems thinking for resolving organizational problems.	PHPM 641: Health Systems Delivery	Students are assessed by means of an individual assignment that requires them to assume the position of a consultant hired to help a new CEO [fictitious] of a healthcare organization understand the issues they should be aware of as they start the new leadership position. This assignment requires students to create a narrated PowerPoint presentation that provides information regarding the most pressing issues the new CEO would face in contemporary healthcare environment.
3. Analyze administrative, management and regulatory issues that impact the delivery of medical care in the US.	PHPM 641: Health Systems Delivery	Students are assessed through an individual paper that requires them to develop a proposal for a new U.S health delivery system innovation.
4. Critique the financial health of public health, health care and non-profit organizations	PHPM 617: Advanced Public Health Policy Analysis	Students are evaluated on how well they develop, evaluate and synthesize financial information via weekly homework exercises, oral presentations, and a final project.
5. Propose strategies for health improvement and elimination of health inequities by organizing stakeholders, including researchers, practitioners, community leaders and other partners.	PHPM 617: Advanced Public Health Policy Analysis.	Students are assessed on their ability to work with stakeholders in proposing strategies for health improvement and elimination of health inequities by means of a policy brief assignment.

2) **For degrees that allow students to tailor competencies at an individual level in consultation with an advisor, the school must present evidence, including policies and sample documents, that demonstrate that each student and advisor create a matrix in the format of Template D4-1 for the plan of study. Include a description of policies in the self-study document and at least five sample matrices in the electronic resource file.**

   Not Applicable

3) **Include the most recent syllabus for each course listed in Template D4-1, or written guidelines for any required elements listed in Template D4-1 that do not have a syllabus.**

   Please see **ERF D04**.

4) **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

   Not applicable.

D5. MPH APPLIED PRACTICE EXPERIENCES

D5. MPH Applied Practice Experiences

MPH students demonstrate competency attainment through applied practice experiences.

The applied practice experiences allow each student to demonstrate attainment of at least five competencies, of which at least three must be foundational competencies (as defined in Criterion D2). The competencies need not be identical from student to student, but the applied experiences must be structured to ensure that all students complete experiences addressing at least five competencies, as specified above. The applied experiences may also address additional foundational or concentration-specific competencies, if appropriate.

The school assesses each student's competency attainment in practical and applied settings through a portfolio approach, which demonstrates and allows assessment of competency attainment. It must include at least two products. Examples include written assignments, projects, videos, multi-media presentations, spreadsheets, websites, posters, photos or other digital artifacts of learning. Materials may be produced and maintained (either by the school or by individual students) in any physical or electronic form chosen by the school.

1) **Briefly describe how the school identifies competencies attained in applied practice experiences for each MPH student, including a description of any relevant policies.**

   In MEZCOPH, each MPH student must complete an internship with an agency/community partner in which they are utilizing their academic knowledge from the MPH curriculum in an applied, real-world setting. The internship experience may fulfill all or part of the Applied Practice Experience requirements. In all MPH concentrations, a minimum of one deliverable must be produced that benefits the internship site in relation to the student's internship project. In most concentrations (Biostatistics, Health Services Administration, One Health, MD/MPH, Public Health Practice, Applied Epidemiology, and Health Promotion), students are required to produce a minimum of two agency-based deliverables, thus fulfilling the Applied Practice Experience requirements solely through their internship. For the remaining concentrations (Environmental and Occupational Health, Epidemiology, Family and Child Health, Health Behavior Health Promotion, and Public Health Policy and Management), in the event that a student's internship experience cannot accommodate a second agency-based deliverable, the student may fulfill the requirements of the Applied Practice Experience through their internship and a deliverable produced from a separate specific, concentration-approved applied experience. These approved non-internship experiences are outlined in the Approved Concentration Non-Internship Deliverable document.

   Applied Practice Experience deliverables must be mapped to a total of five MPH competencies. A minimum of three must be MPH Foundational competencies; the remaining two must come from concentration-specific competencies.

   Each student is required to write an Executive Summary Report. In the Executive Summary Report, the student must include CEPH Template D5-1, outlining the agency-based deliverables the student produced mapped to the selected MPH Foundational and concentration-specific competencies. Minimally, the body of the Executive Summary Report must include the student's self-assessment of competency attainment through the development of the related deliverable. Each concentration also requires additional content from the student in the body of the Executive Summary Report.

   The student submits the final deliverables and the Executive Summary Report to our student intranet, known as the Student Hub. The student's faculty Internship Committee Chair is notified of this submission and is responsible for reviewing and assessing the student's Executive Summary Report and agency-based deliverables. The Internship Committee Chair must be a primary faculty member from the student's concentration. In the case of the Family & Child Health and Health Behavior Health Promotion concentrations, the student's Internship Committee Chair may be a primary faculty member from the Health Promotion Sciences department, not just their specific concentration.

2) Provide documentation, including syllabi and handbooks, of the official requirements through which students complete the applied practice experience.

Documentation is provided in **ERF D05**. These documents include:

- APE Internship Manual
- Approved Concentration Non-Internship Deliverable Document
- Components for the Internship Presentation
- Executive Summary Report and Deliverables Faculty Instructions
- Executive Summary Report Concentration Guidelines
- Executive Summary Report Title Page
- Executive Summary Report Statement by Author
- MPH APE and Internship Quick Reference Guide
- Plan for Internship Form
- Preceptor Agreement Form
- Presentation Feedback Form
- Responsibilities of Internship Participants
- Rubrics for Assessing APEs
- Sample Executive Summary Report Formatting Guide
- U of A International Travel Procedures

3) Provide samples of practice-related materials for individual students from each concentration or generalist degree. The samples must also include materials from students completing combined degree schools, if applicable. The school must provide samples of complete sets of materials (i.e., Template D5-1 and the work products/documents that demonstrate at least five competencies) from at least five students in the last three years for each concentration or generalist degree. If the school has not produced five students for which complete samples are available, note this and provide all available samples.

Although, the implementation of the new criteria started with students who entered the MPH program in fall 2018, our students have implemented internships that have produced products for the organizations that host our students and that address the MPH competencies. Below are examples of these internships. Starting with the fall 2018 class, we now have a defined a method to ensure that the students produce 2 products that are part of their Applied Practice Experience and that these products combined address at least 5 competencies of which 3 are from the Core MPH competencies.

Past examples of Applied Practice Experiences for our On-Campus Program are provided in **ERF D05.2**.

Template D5-1 provide examples of Applied Practice Experiences by students before new guidelines were put into place from our Online MPH Program. These reports are provided as ePortfolios and provide examples of how these experiences have addressed competencies.

Template D5-1 Examples of Practice-based Products

MPH = Foundational | AE HP HSA = Concentration

Practice-based products that demonstrate MPH competency achievement	
Specific products in portfolio that demonstrate application or practice^	**Competency as defined in Criteria D2 and D4***
MPH-HSA Student ePortfolio	1. **'How to Talk to Your Doctor'** (MPH.19) 2. **Hindi COPD Materials** - (MPH.08, 09, 19, 20) 3. **MPH Executive Summary Report** (HSA.03, 06)
MPH-HSA Student ePortfolio	1. **Refugee Women's Health Survey | Focus Group Protocol** (MPH.02) 2. **Data Analysis Report** (MPH.04) 3. **Appendix to the MPH Executive Summary** (HSA.02, 03, 05) (MPH.22)
MPH-HSA Student ePortfolio	1. **How Wisdom Tooth Extraction(s) Contribute to the Opioid Epidemic** (MPH.18, 19, 21) (HSA.07) 2. **Opioid Fact Sheet for Student Athletes** (MPH.18, 19) (HSA,03)
MPH-HSA Student ePortfolio	1. **Telehealth Services Business Plan/Proposal** (MPH.06, 09, 22) (HSA.03, 04, 06) 2. **Diabetes Survival Skills Flyer** (MPH.19)
MPH-HSA Student ePortfolio	1. **Standard Operating Procedure Document** (MPH.19) (HSA.07) 2. **Literature Review** (MPH.21, 22) (HSA.03)
MPH-HP Student ePortfolio	1. **Ohio PAMR Simulation 'Train the Trainer'** (MPH.19, 21) (HP.02) 2. **Ohio PAMR Evaluation Report** (MPH.04, 11) (HP.04)
MPH-HP Student ePortfolio	1. **Culturally Tailored Health Education Plan** (MPH.06, 08,14) (HP.02) 2. **Opioid Addiction Action Plan** (HP.05) (MPH.14)
MPH-HP Student ePortfolio	1. **Health Presentation** (MPH.07, 09) 2. **Internship Presentation** (HP.01, 03) 3. **Educational Material**s (MPH.09) 4. **Assessment** (MPH.02)
MPH-HP Student ePortfolio	1. **Educational Materials (**MPH.07, 09, 19) 2. **Literature Review** (HP.01, 03)
MPH-HP Student ePortfolio	1. **CHNA Survey** (MPH.02, 04, 07) 2. **Final Report** (HP.02, 03)
MPH-AE Student ePortfolio	1. **Bexar County, TX Injury Analysis Report** (MPH.01- 04,19) (AE.02, 04) 2. **Injury Analysis Presentation** (MPH.19) (AE.05)
MPH-AE Student ePortfolio	1. **Fearrington, NC Tick Encounter Survey** (MPH.01-03) (AE.02, 04) 2. **Data Tables** (MPH.04)

MPH-AE Student ePortfolio	1. **Internship Abstract** (AE.01, 04) (MPH.02, 03, 04) 2. **Rx Pad & Educational Materials** (MPH.07, 08)
MPH-AE Student ePortfolio	1. **Report** (MPH.01, 04, 19) 2. **Map Visualizations** (AE.02, 04)
MPH-AE Student ePortfolio	1. **Analyses (Appendix)** (AE.02, 04) (MPH.01-04) 2. **Final Report** (MPH.19)

^ Each student portfolio must include at least two products

* Each student must demonstrate attainment of at least five competencies, of which at least three must be foundational competencies (as defined in Criterion D2).

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

D6. DrPH APPLIED PRACTICE EXPERIENCE

D6. DrPH Applied Practice Experience

The work product may be a single project or a set of related projects that demonstrate a depth of competence. It may be completed as a discrete experience (such as a practicum or internship) or integrated into school coursework. In either case, the deliverable must contain a reflective component that includes the student's expression of personal and/or professional reactions to the applied practice experience. This may take the form of a journal or other written product, a professional portfolio or another deliverable as appropriate for the school.

The school identifies a minimum of five foundational and/or concentration-specific competencies (as defined in Criteria D3 and D4) that are reinforced and/or assessed through application. The school may either choose at least one competency from the leadership, management and governance domain in Criterion D3 or choose a concentration-specific competency identified in Criterion D4 if it relates to leadership skills. Competencies may differ from student to student.

1) **Briefly describe how the school identifies competencies attained in applied practice experiences for each DrPH student, including a description of any relevant policies.**

   The objectives of both the Applied Practiced Experience and the Integrated Learning Experience are primarily demonstrated in the student's culminating dissertation.

   All DrPH students entering the program in fall 2018 or later complete an advanced practice-based dissertation requiring 800 contact hours. Prior to beginning this work, candidates prepare a proposal that identifies a minimum of five competencies (foundational and/or concentration-specific) that will be demonstrated through the project as well as potential, field-based deliverables the student may produce. The student presents and defends the proposal before the Dissertation Committee which is responsible for ascertaining the appropriateness of each component of the proposal including competencies, specific deliverables, and the reflective component. Evaluations of dissertations include a rubric (**ERF D06.2**) identifies how well a student has met their stated competencies. The committee may approve, deny or approve pending revisions. If the outcome is "deny," the student works with the Faculty Advisor to develop a Retention Plan with specific objectives and a concrete deadline. Those that need to make revisions, follow the recommendations and timeline of the committee given at the time of the proposal defense. Additionally, the Graduate College requires that all approved doctoral dissertation proposals be kept on file as part of the students' permanent record.

2) **Explain, with references to specific deliverables or other requirements, the manner through which the school ensures that the applied practice experience requires students to demonstrate leadership competencies**.

   The DrPH dissertation is conducted within the context of a public health agency with the goal of making a meaningful contribution to the agency or general public as defined by the agency. The advanced practice-based dissertation must address a significant public health problem (as defined by the agency or community) that aligns with the student's major area of study. The candidate must demonstrate systems-level thinking, organization and leadership in order to accomplish the applied practice experience. Students work closely with their Chair, Community Mentor, and Committee Members throughout the applied experience to ensure advanced-level practical experiences. By collaborating with practitioners in a real-world setting, students develop leadership competencies and contribute to the field.

   The final DrPH dissertation is a single, unifying document that includes the identification and documentation of foundational and/or concentration-specific competency mastery that are reinforced and/or assessed through application. The student may either choose at least one competency from the

   leadership, management and governance domain or choose a concentration-specific competency if it relates to leadership skills.

The student, Chair and later the full committee determine when the dissertation document is sufficiently developed to defend. Candidates present their dissertation experience in a one-hour public seminar and their written dissertation before their Dissertation Committee in a two-hour closed-door defense. The committee assesses the student's demonstration of leadership competencies as one component of the assessment rubric, (**ERF D60.2**) the reflective component and meaningful contribution to the agency. The student may pass, fail or pass pending revisions. "Pass pending revisions," is the most common outcome. These students follow the recommendations and timeline of the committee given at the time the dissertation defense.

3) Provide documentation, including syllabi and handbooks, of the official requirements through which students complete the applied practice experience.

See MCH and PHPM DrPH Handbooks within the **ERF D06**.

4) Provide samples of practice-related materials for individual students from each concentration or generalist degree. The school must provide samples of complete sets of materials (i.e., Template D6-1 and the work products/documents that demonstrate at least five competencies) from at least five students in the last three years for each concentration or generalist degree. If the school has not produced five students for which complete samples are available, note this and provide all available samples.

Although, the implementation of the new criteria started with students who entered the DrPH program in fall 2018, our students have implemented DrPH dissertations that have produced products for the organizations that host our students and that address the DrPH competencies. Starting with the fall 2018 class, we now have a defined method to ensure that the students integrate an applied practice experience within the DrPH dissertation projects. Examples of recently approved DrPH dissertations proposals are present in the **ERF D06.1.** The assessment rubric of future DrPH Dissertations that document their applied practice experience is in **ERF D06.2**.

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

D7. MPH INTEGRATIVE LEARNING EXPERIENCE

D7. MPH Integrative Learning Experience

MPH students complete an integrative learning experience (ILE) that demonstrates synthesis of foundational and concentration competencies. Students in consultation with faculty select foundational and concentration-specific competencies appropriate to the student's educational and professional goals.

Professional certification exams (eg,CPH, CHES/MCHES, REHS, RHIA) may serve as an element of the ILE, but are not in and of themselves sufficient to satisfy this criterion.

The school identifies assessment methods that ensure that at least one faculty member reviews each student's performance in the ILE and ensures that the experience addresses the selected foundational and concentration-specific competencies. Faculty assessment may be supplemented with assessments from other qualified individuals (eg, preceptors).

1) **List, in the format of Template D7-1, the integrative learning experience for each MPH concentration, generalist degree or combined degree option that includes the MPH. The template also requires the school to explain, for each experience, how it ensures that the experience demonstrates synthesis of competencies.**

   Students in all the MPH concentrations take PHP 580 "Integrated Public Health Learning Experience." This is a team-based course taught by high-level experienced public health administrators who have worked in the public and private sectors of health care, including the former Director of the Arizona Department of Health Services and who currently services as the Executive Director for the Arizona Public Health Association. This is a case-based course that brings students from all the concentrations together so they can integrate their knowledge from the core and their concentration courses that they have taken. The course itself has students conduct assignments that assesses them on 10 of the foundational MPH competencies. Students also select at least 2 of their concentration-specific competencies at the start of the course to be assessed. Students must have completed or be concurrently finishing their core public health courses and have completed at least 24 total units of course work. The students are evaluated on obtaining selected competencies by the course instructor. The syllabus and assessment tools are available with the MPH syllabi in the **ERF D01** (PHP 580).

Template D7-1

MPH Integrative Learning Experience for all Concentration	
Integrative learning experience (list all options)	**How competencies are synthesized**
All MPH students take PHP 580 Integrated Public Health Learning Experience. The course includes analyses of public health cases that integrate core public health knowledge and competencies to determine the best systems, policies and programs for decreasing morbidity and premature mortality. Additionally, all students conduct an internship project with a minimum of 135 hours with an agency that address various competencies.	Each student is assigned to a team of 5-6 students who simulate the leadership team of a local or state health department tasked to assess and propose solutions to a public health issue assigned to them. There are 5 aspects (i.e. d*escription of the issue, possible solutions, proposed approach, implementation,* and *evaluation)* of each issue that must be addressed by each team in separate assignments as described below. Each assignment must be completed as a word document and posted in D2l by the due date. Students then have 2 weeks after assignments are posted to read and comment about other teams' assignments. These comments must be individual student comments, not team comments. Each student must comment about each team assignment, except those from their own team. Internships are also assessed.

2) Briefly summarize the process, expectations and assessment for each integrative learning experience.

Students participate in a group project to address specific public health issues and propose multiple methodologies and interventions to improve community health. Projects address a set of contemporary public health issues including major infectious diseases, chronic diseases, environment-related conditions, substance abuse, occupational diseases and behavior-related conditions.

Projects analyze the evidence for and against the effectiveness of specific public health interventions, the practical realities and limitations of applying them within public health systems, and the political, legal and ethical controversies that might arise in addressing these issues. The course is based on contemporary public health case studies and involve active student participation in problem solving. Students are assessed individually and as part of a team.

3) Provide documentation, including syllabi and/or handbooks that communicates integrative learning experience policies and procedures to students.

The syllabus for PHP 580 Integrated Public Health Learning Experience is provide in the **ERF D01**.

4) Provide documentation, including rubrics or guidelines, that explains the methods through which faculty and/or other qualified individuals assess the integrative learning experience with regard to students' demonstration of the selected competencies.

The assessment tools and rubric that are used to assess the competencies are included within the course syllabus located in **ERF D01**.

5) Include completed, graded samples of deliverables associated with each integrative learning experience option from different concentrations, if applicable. The school must provide at least 10% of the number produced in the last three years or five examples, whichever is greater.

Students who started the MPH program in fall 2018 are the first students required to take this course. The course was offered in spring 2019 as a pilot for students who volunteered to take it. The results of this initial offering allowed the college to adjust the course to have it fully implemented in fall 2019 when the first cohort of students who are required to take enroll in it.

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

D8. DrPH INTEGRATIVE LEARNING EXPERIENCE

D8. DrPH Integrative Learning Experience

As part of an integrative learning experience, DrPH candidates generate field-based products consistent with advanced practice designed to influence schools, policies or systems addressing public health. The products demonstrate synthesis of foundational and concentration-specific competencies.

The integrative learning experience is completed at or near the end of the school of study. It may take many forms consistent with advanced, doctoral-level studies and university policies but must require, at a minimum, production of a high-quality written product.

1) List, in the format of Template D8-1, the integrative learning experience for each DrPH concentration or generalist degree. The template also requires the school to explain, for each experience, how it ensures that the experience demonstrates synthesis of competencies.

Template D8-1. DrPH Integrated Learning Experience for all Concentrations	
DrPH Integrative Learning Experience for the PHPM and MCH Concentrations	
Integrative learning experience (list all options)	**How competencies are synthesized**
Required applied dissertation - 800 contact hours	It is expected that each DrPH candidate will embark upon an Applied Dissertation project within a community agency. The onus is on the student to propose and gain approval from the student's committee for a plan that will produce meaningful deliverables to the organization while demonstrating a mastery level of competencies through application. The end product is a comprehensive written dissertation that demonstrates coherent integration of competencies in a real-world application and must gain final approval from the committee.

2) Briefly summarize the process, expectations and assessment for each integrative learning experience.

We have established a comprehensive approach to have DrPH students have an integrated learning experience that is practice based as part of their dissertation. Students are able to identify the competencies that they address with their dissertation and have products that support the organizations that are serve as partners for the dissertation work.

It is the Dissertation Committee's responsibility to ensure the student's initial proposal suitably addresses the Integrated Learning Experience objectives and later assesses the success of those endeavors during the Dissertation Defense. The Integrative Learning Experience is interwoven into the advanced practice dissertation. The advanced practice dissertation is also the Applied Practice Experience. Because the dissertation is the culminating experience of the DrPH, students integrate their course work knowledge and skills into the development of a dissertation proposal. This proposal is then presented to the Dissertation Committee that approves, approves with revision, or denies it. With approval, students advance to the implementation of their projects. Once complete, the written dissertation includes an assessment of the integration of course work through reflection. By identifying learning objectives from foundational and concentration-specific courses the student justifies how their Integrated Learning Experience maps back to these learning objectives and competencies.

3) **Provide documentation, including syllabi and/or handbooks that communicates integrative learning experience policies and procedures to students.**

The Integrative Learning Experience (ILE) is the dissertation and information about meeting this criterion are within the DrPH MCH and DrPH PHPM Handbooks. These handbooks and other evaluation materials are in **ERF D06**.

4) **Provide documentation, including rubrics or guidelines that explains the methods through which faculty and/or other qualified individuals assess the integrative learning experience with regard to students' demonstration of the selected competencies.**

The ILE is the dissertation and information about meeting this criterion are within the DrPH MCH and DrPH PHPM Handbooks. These handbooks and other evaluation materials are in **ERF D06**.

5) **Include completed, graded samples of deliverables associated with each integrative learning experience option from different concentrations. The school must provide at least 10% of the number produced in the last three years or five examples, whichever is greater. If the school does not have five recent samples for an option, note this and provide all available samples.**

Given that this approach to the DrPH dissertation was required for the first time with students who started in fall 2018, we do not have any current examples using our required format. What we have included in the ERF are what we consider appropriate examples of past applied practice dissertation that have been conducted by our students. We also have included past DrPH dissertations that have been approved which demonstrate how our students will meet this requirement. See **ERF D08** for these documents.

6) **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

Not applicable.

D9. PUBLIC HEALTH BACHELOR'S DEGREE GENERAL CURRICULUM

D9. Public Health Bachelor's Degree General Curriculum

The overall undergraduate curriculum (eg, general education, liberal learning, essential knowledge and competencies, etc.) introduces students to the following domains. The curriculum addresses these domains through any combination of learning experiences throughout the undergraduate curriculum, including general education courses defined by the institution as well as concentration and major requirements or electives.

1) List the coursework required for the school or program's public health bachelor's degree.

The Bachelor of Science with a major in public health curriculum consists of 120 semester credits to graduate. The degree is divided into a pre-professional major (pre-public health) and a professional major (public health). The curriculum provides foundational and general education coursework, core knowledge regarding public health principles and practice, augmented by concentrated study in six emphasis areas. Field work, through a required six-credit culminating internship, provides students with an experience that incorporates classroom learning into public health practice and prepares them for future employment.

All students at the University complete the following foundational/general education coursework:

- Two semesters of foundational composition
- Two semesters of foundational second language
- One semester of foundational mathematics (students in public health complete College Algebra or higher)
- Nine semester credits of general education in the Individuals and Societies category
- Six semester credits of general education in the Traditions and Cultures category
- Three semester credits of general education in the Arts or Humanities categories
- One diversity course

Students in the pre-public health major complete the following pre-major courses:

- Introductory Public Health coursework including:
  - HPS 178 Personal Health and Wellness
  - HPS 200 Introduction to Public Health
- Chemistry (two semesters of lecture and one lab)
- Biology (one lecture and lab)
- Nutrition (one lecture)

Once admitted to the major, students complete the following major core coursework for 31 semester credits:

- PSIO 201 or PSIO 380 Anatomy & Physiology or Fundamentals of Human Physiology
- ENGL 307 or ENGL 308 Technical or Business Writing
- EPID 309 Introduction to Epidemiology
- PHPM 310 Health Care in the US
- HPS 350 Principles of Health Education and Health Promotion
- EHS 375 Introduction to Environmental & Occupational Health
- BIOS 376 Introduction to Biostatistics
- HPS 387 Health Disparities & Minority Health
- HPS 433 Global Health
- HPS 478 Public Health Nutrition
- HPS 493a Field work of Public Health (six semester credits)

The major core classes are augmented by the student's choice of one of six concentrated emphasis areas of study for 12 semester credits. The emphasis areas include: Environmental and Occupational Health; Global Health; Health Promotion; Health Systems Theory and Practice: Quantitative Methods in Public Health; and Public Health Practice.

Students are also required to complete 9 semester credits of general public health electives addressing a broad array of public health subject matter. Emphasis area and elective courses allow students to explore their interests in a specific subfield of public health.

2) Provide official documentation of the required components and total length of the degree, in the form of an institutional catalog or online resource. Provide hyperlinks to documents if they are available online.

The curriculum requirements may be viewed within the University Catalog or the dedicated College of Public Health website page.

3) Provide a matrix, in the format of Template D9-1, that indicates the courses/experience(s) that ensure that students are introduced to each of the domains indicated. Template D9-1 requires the school or program to identify the experiences that introduce each domain.

See Template D9-1 for the four general education areas specified for this criterion. The criterion is addressed through a combination of foundational and general education coursework, pre-major coursework, and major core coursework.

Template D9-1

Domains	Courses and other learning experiences through which students are introduced to the domains specified
Science: Introduction to the foundations of scientific knowledge, including the biological and life sciences and the concepts of health and disease	All students must complete: one semester of general biology (one lecture and one lab: MCB 181R and MCB 181L): two semesters of chemistry (including two lectures and one lab: CHEM 101A/101B/102 or CHEM 151/152); one semester of physiology (PSIO 201 or PSIO 380); one semester of introduction to nutrition (NSC 101). Additionally, students are required to take Personal Health and Wellness (HPS 178) and PHPM 310 Health Care in the US.
Social and Behavioral Sciences: Introduction to the foundations of social and behavioral sciences	All students are required to take general education courses in areas of Individuals and Societies (total 9 semester credits), and Traditions and Cultures (6 semester credits) (see: https://catalog.arizona.edu/policy/general-education-curriculum). Additionally, the major includes the courses HPS 350 Principles of Health Education and Health Promotion, HPS 387 Health Disparities and Minority Health, and PHPM 310 Health Care in the US.
Math/Quantitative Reasoning: Introduction to basic statistics	All students must take College Algebra (MATH 112) or a higher-level math course (such as calculus), EPID 309 Intro to Epidemiology, BIOS 376 Intro to Biostatistics.
Humanities/Fine Arts: Introduction to the humanities/fine arts	All students are required to take general education courses (see: https://catalog.arizona.edu/policy/general-education-curriculum) in the areas of: Second Language Foundations (two semesters); Arts or Humanities (three semester credits); Diversity Emphasis – Gender, Race, Class, Ethnicity, Sexual Orientation, or Non-Western Area Studies (one course)

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

D10. PUBLIC HEALTH BACHELOR'S DEGREE FOUNDATIONAL DOMAINS

D10. Public Health Bachelor's Degree Foundational Domains

The requirements for the public health major or concentration provide instruction in the following domains. The curriculum addresses these domains through any combination of learning experiences throughout the requirements for the major or concentration coursework (i.e., the school or program may identify multiple learning experiences that address a domain— the domains listed below do not each require a single designated course).

1) **Provide a matrix, in the format of Template D10-1, which indicates the courses/experience(s) that ensure that students are exposed to each of the domains indicated. Template D10-1 requires the school or program to identify the learning experiences that introduce and reinforce each domain. Include a footnote with the template that provides the school or program's definition of "introduced" and "covered."**

   See Template D10-1 for the foundational domains specified for this criterion. The criterion is addressed through major core coursework offered by the College of Public Health.

   Note: "Introduced" means that the instructor has presented a domain area either through a lecture, reading, video, or other source. This is in contrast to the more involved "covered". Covered domains are reinforced through classroom discussion and other learning and assessment activities.

   In addition to the major coursework offered by our College, public health students complete two courses from departments outside the College of Public Health (1) PSIO 201 Anatomy & Physiology or PSIO 380 or Fundamentals of Human Physiology; and (2) ENGL 307 Technical Writing or ENGL 308 Business Writing. These courses are not included in the Template D10-1 as the domains are not included on the syllabi since they are not public health courses. However, the PSIO course options provide public health students additional learning opportunities on domain Human Health (including science of human health and disease, health promotion, and health protection). Similarly, the ENGL course provide public health students additional learning opportunities on domain Health Communications (including technical writing, professional writing, use of mass media, and use of electronic technology).

Template D10-1

Syllabi for all courses listed in this table are in ERF D10.												
Key: I=introduced, C=covered												
Public Health Domains												
Overview of Public Health: Address the history and philosophy of public health as well as its core values, concepts, and functions across the globe and in society		**HPS 178 Personal Health and Wellness**	**HPS 200 Intro to Public Health**	**EPID 309 Intro to Epidemiology**	**PHPM 310 Health Care in the US**	**HPS 350 Principles of Health Education and Health Promotion**	**EHS 375 Intro to Environmental and Occupational Health**	**BIOS 376 Intro to Biostatistics**	**HPS 387 Health Disparities and Minority Health**	**HPS 433 Global Health**	**HPS 478 Public Health Nutrition**	**HPS 493A Fieldwork in Public Health (Internship)**
	Public Health History	**C**	**C**	**I**		**C**			**C**	**I**	**I**	
	Public Health Philosophy	**C**	**C**	**C**		**C**			**C**	**I**	**I**	
	Core PH Values	**C**	**C**	**C**		**C**			**C**	**I**	**I**	**C**
	Core PH Concepts	**C**	**C**	**C**		**C**			**C**	**I**	**I**	**C**
	Global Functions of Public Health		**I**	**I**		**I**			**I**	**C**		
	Societal Functions of Public Health		**C**	**I**		**C**			**C**	**C**	**I**	**C**
Role and Importance of Data in Public Health: Address the basic concepts, methods, and tools of public health data collection, use, and analysis and why evidence-based approaches are an essential part of public health practice		**HPS 178 Personal Health and Wellness**	**HPS 200 Intro to Public Health**	**EPID 309 Intro to Epidemiology**	**PHPM 310 Health Care in the US**	**HPS 350 Principles of Health Education and Health Promotion**	**EHS 375 Intro to Environmental and Occupational Health**	**BIOS 376 Intro to Biostatistics**	**HPS 387 Health Disparities and Minority Health**	**HPS 433 Global Health**	**HPS 478 Public Health Nutrition**	**HPS 493A Fieldwork in Public Health (Internship)**
	Basic Concepts of Data Collection		**I**	**C**		**C**		**I**	**I**	**I**	**I**	
	Basic Methods of Data Collection		**I**	**C**		**C**		**C**	**I**	**I**	**I**	
	Basic Tools of Data Collection			**I**		**C**		**I**	**I**	**I**	**I**	

	Data Usage		**I**	**I**		**C**		**C**	**C**	**I**	**C**	
	Data Analysis		**I**	**C**		**C**		**C**	**C**	**I**	**C**	
	Evidence-based Approaches		**C**	**C**		**C**		**C**	**C**	**I**	**C**	
Identifying and Addressing Population Health Challenges: Address the concepts of population health, and the basic processes, approaches, and interventions that identify and address the major health-related needs and concerns of populations		**HPS 178 Personal Health and Wellness**	**HPS 200 Intro to Public Health**	**EPID 309 Intro to Epidemiology**	**PHPM 310 Health Care in the US**	**HPS 350 Principles of Health Education and Health Promotion**	**EHS 375 Intro to Environmental and Occupational Health**	**BIOS 376 Intro to Biostatistics**	**HPS 387 Health Disparities and Minority Health**	**HPS 433 Global Health**	**HPS 478 Public Health Nutrition**	**HPS 493A Fieldwork in Public Health (Internship)**
	Population Health Concepts	**C**	**C**		**C**	**C**			**C**	**I**	**C**	
	Introduction to Processes and Approaches to Identify Needs and Concerns of Populations	**C**	**C**			**C**			**C**	**I**	**C**	
	Introduction to Approaches and Interventions to Address Needs and Concerns of Populations	**C**	**C**		**C**	**C**			**C**	**C**	**C**	
Human Health: Address the underlying science of human health and disease including opportunities for promoting and protecting health across the life course		**HPS 178 Personal Health and Wellness**	**HPS 200 Intro to Public Health**	**EPID 309 Intro to Epidemiology**	**PHPM 310 Health Care in the US**	**HPS 350 Principles of Health Education and Health Promotion**	**EHS 375 Intro to Environmental and Occupational Health**	**BIOS 376 Introduction to Biostatistics**	**HPS 387 Health Disparities and Minority Health**	**HPS 433 Global Health**	**HPS 478 Public Health Nutrition**	**HPS 493A Fieldwork in Public Health (Internship)**
	Science of Human Health and Disease	**C**	**I**	**I**					**C**	**I**	**I**	
	Health Promotion	**C**	**C**	**I**		**C**			**C**	**I**	**I**	
	Health Protection	**C**	**C**	**I**		**C**			**C**	**I**	**I**	

Determinants of Health: Address the socio-economic, behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities		**HPS 178 Personal Health and Wellness**	**HPS 200 Intro to Public Health**	**EPID 309 Intro to Epidemiology**	**PHPM 310 Health Care in the US**	**HPS 350 Principles of Health Education and Health Promotion**	**EHS 375 Intro to Environmental and Occupational Health**	**BIOS 376 Intro to Biostatistics**	**HPS 387 Health Disparities and Minority Health**	**HPS 433 Global Health**	**HPS 478 Public Health Nutrition**	**HPS 493A Fieldwork in Public Health (Internship)**
	Socio-economic Impacts on Human Health and Health Disparities	**C**	**C**		**C**	**C**	**C**		**C**	**C**	**I**	
	Behavioral Factors Impacts on Human Health and Health Disparities	**C**	**I**		**C**	**C**	**C**		**C**	**C**	**I**	
	Biological Factors Impacts on Human Health and Health Disparities	**C**	**I**		**I**	**I**	**C**		**C**	**I**	**I**	
	Environmental Factors Impacts on Human Health and Health Disparities	**C**	**I**		**I**	**I**	**C**		**C**	**C**	**I**	
Project Implementation: Address the fundamental concepts and features of project implementation, including planning, assessment, and evaluation		**HPS 178 Personal Health and Wellness**	**HPS 200 Intro to Public Health**	**EPID 309 Intro to Epidemiology**	**PHPM 310 Health Care in the US**	**HPS 350 Principles of Health Education and Health Promotion**	**EHS 375 Intro to Environmental and Occupational Health**	**BIOS 376 Intro to Biostatistics**	**HPS 387 Health Disparities and Minority Health**	**HPS 433 Global Health**	**HPS 478 Public Health Nutrition**	**HPS 493A Fieldwork in Public Health (Internship)**
	Introduction to Planning Concepts and Features		**I**			**C**			**I**		**I**	
	Introduction to Assessment Concepts and Features		**I**			**C**			**I**		**I**	

	Introduction to Evaluation Concepts and Features					**C**			**I**		**I**	
Overview of the Health System: Address the fundamental characteristics and organizational structures of the U.S. health system as well as to the differences in systems in other countries		**HPS 178 Personal Health and Wellness**	**HPS 200 Intro to Public Health**	**EPID 309 Introduction to Epidemiology**	**PHPM 310 Health Care in the US**	**HPS 350 Principles of Health Education and Health Promotion**	**EHS 375 Intro to Environmental and Occupational Health**	**BIOS 376 Intro to Biostatistics**	**HPS 387 Health Disparities and Minority Health**	**HPS 433 Global Health**	**HPS 478 Public Health Nutrition**	**HPS 493A Fieldwork in Public Health (Internship)**
	Characteristics and Structures of the U.S. Health System		**I**		**C**	**C**			**C**		**I**	
	Comparative Health Systems		**I**		**I**				**C**		**I**	
Health Policy, Law, Ethics, and Economics: Address the basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy, and the roles, influences and responsibilities of the different agencies and branches of government		**HPS 178 Personal Health and Wellness**	**HPS 200 Intro to Public Health**	**EPID 309 Intro to Epidemiology**	**PHPM 310 Health Care in the US**	**HPS 350 Principles of Health Education and Health Promotion**	**EHS 375 Intro to Environmental and Occupational Health**	**BIOS 376 Intro to Biostatistics**	**HPS 387 Health Disparities and Minority Health**	**HPS 433 Global Health**	**HPS 478 Public Health Nutrition**	**HPS 493A Fieldwork in Public Health (Internship)**
	Legal dimensions of health care and public health policy		**I**	**I**					**C**		**I**	
	Ethical dimensions of health care and public health policy		**I**	**I**	**I**	**C**		**I**	**C**		**I**	
	Economical dimensions of health care and public health policy		**I**	**I**	**C**				**C**		**I**	

	Regulatory dimensions of health care and public health policy		**I**	**I**	**I**				**C**		**I**	
	Governmental Agency Roles in health care and public health policy		**C**	**I**	**I**	**C**			**C**		**I**	
Health Communications: Address the basic concepts of public health-specific communication, including technical and professional writing and the use of mass media and electronic technology		**HPS 178 Personal Health and Wellness**	**HPS 200 Intro to Public Health**	**EPID 309 Intro to Epidemiology**	**PHPM 310 Health Care in the US**	**HPS 350 Principles of Health Education and Health Promotion**	**EHS 375 Intro to Environmental and Occupational Health**	**BIOS 376 Intro to Biostatistics**	**HPS 387 Health Disparities and Minority Health**	**HPS 433 Global Health**	**HPS 478 Public Health Nutrition**	**HPS 493A Fieldwork in Public Health (Internship)**
	Technical writing	**C**	**C**		**C**	**C**		**I**	**C**			**C**
	Professional writing	**C**	**C**		**C**	**C**		**I**	**C**			**C**
	Use of Mass Media	**C**	**C**			**C**			**C**			**C**
	Use of Electronic Technology	**C**	**I**			**C**			**C**			**C**

2) Include the most recent syllabus from each course listed in Template D10-1, or written guidelines, such as a handbook, for any required experience(s) listed in Template D10-1 that do not have a syllabus.

See uploaded syllabi in **ERF D10**.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

D11. PUBLIC HEALTH BACHELOR'S DEGREE FOUNDATIONAL COMPETENCIES

D11. Public Health Bachelor's Degree Foundational Competencies

Students must demonstrate the following competencies:

-the ability to communicate public health information, in both oral and written forms, through a variety of media and to diverse audiences
-the ability to locate, use, evaluate and synthesize public health information

1) Provide a matrix, in the format of Template D11-1, that indicates the assessment opportunities that ensure that students demonstrate the stated competencies.

See **Template D11-1** for the foundational competencies specified for this criterion. The criterion is addressed through major core coursework offered by College.

Template D11-1

Competencies	Course number(s) & name(s) or other educational requirements		Specific assessment opportunity
Public Health Communication: Students should be able to communicate public health information, in both oral and written forms and through a variety of media, to diverse audiences			
	Oral communication	HPS 178 Personal Health & Wellness; HPS 200 Intro to Public Health; HPS 350 Principles of Health Education & Health Promotion; HPS 387 Health Disparities and Minority Health; HPS 478 Public Health Nutrition	Students are required to provide oral presentations in HPS 178, HPS 350, HPS 478, assessed by the instructor; HPS 200 and HPS 387 - Students participate in small group discussions and report back to the class, and the discussions are assessed by the instructor.
	Written communication	HPS 178 Personal Health & Wellness; HPS 200 Intro to Public Health; PHPM 310 Health Care in the US; BIOS 376 Intro to Biostats; HPS 387 Health Disparities and Minority Health;	HPS 178: Assignment: Content Messaging Strategies for Community Health and Education; BIOS 376: Reporting and interpreting statistical results to lay audiences; PHPM 310: Health Reform and Interest Group Theory assignment; HPS 200 and HPS 387 - Students are required to write three summary and analysis papers. Each paper summarizes, analyzes and applies the course content to date. In addition, there are short essay questions on each of the exams. The exams and papers are assessed by the instructor.
	Communicate with diverse audiences	HPS 178 Personal Health & Wellness; HPS 200 Intro to Public Health; BIOS 376 Intro to Biostats; HPS 387 Health Disparities and Minority Health; HPS 493a Fieldwork in Public Health	HPS 178: Assignment: Content Messaging Strategies for Community Health and Education; HPS 200 and HPS 387 - Lecture and course assignments focus on communication with diverse audiences, in class activities include the development of an infographic and messaging to diverse audiences and stakeholders. These assignments are assessed by the instructor; BIOS 376: Reporting and interpreting statistical results for statisticians as well as non-statisticians; HPS 493a: Site supervisor gives feedback on this

Template D11-1

Competencies	Course number(s) & name(s) or other educational requirements		Specific assessment opportunity
			competency in the preceptor evaluation.
	Communicate through variety of media	HPS 178 Personal Health & Wellness; HPS 493a Fieldwork in Public Health	HPS 178: Assignment: Content Messaging Strategies for Community Health and Education; HPS 493a: students complete a LinkedIn profile and ePortfolio assignments with rubric scoring.
Information Literacy: Students should be able to locate, use, evaluate, and synthesize public health information			
	Locate information	HPS 200 Intro to Public Health; EPID 309 Intro to Epidemiology; PHPM 310 Health Care in the US; HPS 350 Principles of Health Education & Health Promotion; EHS 375 Intro to Environmental & Occupational Health; HPS 387 Health Disparities and Minority Health; HPS 433 Global Health; HPS 478 Public Health Nutrition	In all listed courses, students collect information from library sources and electronic searches for papers and oral presentations.
	Use information	HPS 200 Intro to Public Health; EPID 309 Intro to Epidemiology; PHPM Health Care in the US; HPS 350 Principles of Health Education & Health Promotion; EHS 375 Intro to Environmental & Occupational Health; BIOS 376 Intro to Biostats;	EPID 309: Through homework, in class activities, and analysis project, students are required to calculate summary measures from variety of data sources; HPS 200, HPS 350, EHS 375, HPS 387, HPS 433, and HPS 478: Students use information collected to provide written and oral presentations; BIOS 376: Statistical analysis of public health related data;

Template D11-1

Competencies	Course number(s) & name(s) or other educational requirements		Specific assessment opportunity
		HPS 387 Health Disparities and Minority Health; HPS 433 Global Health; HPS 478 Public Health Nutrition	
	Evaluate information	HPS 200 Intro to Public Health; EPID 309 Intro to Epidemiology; HPS 350 Principles of Health Education & Health Promotion; EHS 375 Intro to Environmental & Occupational Health; BIOS 376 Intro to Biostats; HPS 387 Health Disparities and Minority Health; HPS 433 Global Health; HPS 478 Public Health Nutrition	EPID 309: Through homework, in class activities, and analysis project, students are required to evaluate the interpretation of information; HPS 200, HPS 350, EHS 375, HPS 387, HPS 433, and HPS 478: Students evaluate information collected to provide written and oral presentations; BIOS 376: Interpreting statistical results from public health domain;
	Synthesize information	HPS 200 Intro to Public Health; EPID 309 Intro to Epidemiology; PHPM 310 Health Care in the US; HPS 350 Principles of Health Education & Health Promotion; EHS 375 Intro to Environmental & Occupational Health; HPS 387 Health Disparities and Minority Health; HPS 433 Global Health; HPS 478 Public Health Nutrition	EPID 309: Students must synthesize data and literature review for a summary report on the analysis project; HPS 200, HPS 350, EHS 375, HPS 387, HPS 433, and HPS 478: Students synthesize information that has been collected to prepare written and oral presentations.

2) Include the most recent syllabus from each course listed in Template D11-1, or written guidelines, such as handbook, for any required elements listed in Template D11-1 that do not have a syllabus.

See uploaded syllabi in the **ERF D10**.

D12. PUBLIC HEALTH BACHELOR'S DEGREE CUMULATIVE AND EXPERIENTIAL ACTIVITIES

D12. Public Health Bachelor's Degree Cumulative and Experiential Activities

Students have opportunities to integrate, synthesize and apply knowledge through cumulative and experiential activities. All students complete a cumulative, integrative and scholarly or applied experience or inquiry project that serves as a capstone to the education experience. These experiences may include, but are not limited to, internships, service-learning projects, senior seminars, portfolio projects, research papers or honors theses. Schools and programs encourage exposure to local-level public health professionals and/or agencies that engage in public health practice.

1) Provide a matrix, in the format of Template D12-1, that identifies the cumulative and experiential activities through which students have the opportunity to integrate, synthesize and apply knowledge as indicated.

See Template D12-1 for the cumulative and experiential activities specified for this criterion. The criterion is addressed through major core coursework offered by the College of Public Health.

Template D12-1

Cumulative and Experiential Activity (internships, research papers, service-learning projects, etc.)	**Narrative describing how activity provides students the opportunity to integrate, synthesize and apply knowledge.**
HPS 493a Fieldwork in Public Health	The culminating capstone experience in the undergraduate curriculum is a six-credit hour fieldwork experience that emphasizes the application of public health principles in an agency whose primary mission is public health practice, under the supervision of a qualified community preceptor and MEZCOPH faculty member. The experience gives students a chance to narrow down their post-graduation career goals, gain experience in the field, and begin their professional networking, in addition to integrate, synthesize and apply knowledge gained in the classroom.

2) Include examples of student work that relate to the cumulative and experiential activities.

See uploaded examples in **ERF D12**.

3) Briefly describe the means through which the school or program implements the cumulative experience and field exposure requirements.

The culminating capstone experience in the undergraduate curriculum is a six-credit hour fieldwork experience that emphasizes the application of public health principles in an agency whose primary mission is public health practice, under the supervision of a qualified community preceptor and MEZCOPH faculty member. The experience gives students a chance to narrow down their post-graduation career goals, gain experience in the field, and begin their professional networking, in addition to integrate, synthesize and apply knowledge gained in the classroom.

Support for finding and securing internships is offered online and in-person by the Internship Director (a faculty member in Health Promotion Sciences), the College's 100% Engagement Coordinator, and broad advertisement by staff in the Office of Student Services. Before the internship field work begins, each student must submit a formal work plan for the internship experience including learning objectives. The Internship Director, in collaboration with the agency preceptor, monitors the student internship experience. Feedback is provided half-way and at the end of the internship via evaluations completed by

the site preceptor. The student's final grade is assigned by the Internship Director, based on the student's performance on course assignments, the preceptor's evaluations, and the student's fulfillment of the stated learning objectives. The assignments include reflection reports, activity logs, D2L discussions, and professional development tool assignments (e.g., LinkedIn profile and ePortfolios).

Public health students report that they really value the internship experience and appreciate the opportunity to contribute to projects in primarily low-income populations related to nutrition, mental health, physical activity, access to healthcare, maternal and child health, substance abuse, infectious disease, injury and violence prevention, environmental health, and responsible sexual behavior, and more.

The College also offers many learning opportunities that allow for active student engagement beyond the traditional classroom and internship setting. These include elective service learning courses, including HPS 497E "Public Health for Community Wellness", HPS 497G "Open Airways for Schools", and EPI 497S "Skin Cancer Prevention in the Community Setting". These field-based models immerse students, faculty and community partners directly in communities and schools to implement programs that directly support community efforts to address health disparities. Each service activity is structured around reflection questions which provide the framework for understanding the role of public health in the elimination of health disparities.

Students can also engage in preceptorships, independent studies, and directed research credits with faculty. Work-study opportunities also exist within MEZCOPH, including opportunities to work in the Office of Student Services and Alumni Affairs, Office of Academic Affairs, Departments of Health Promotion Sciences, Epidemiology and Biostatistics, and Community, Environment and Policy,

Additionally, MEZCOPH faculty lead three to ten-week summer study abroad programs in China, Peru, Tanzania, and Western Europe. Our programs create a community of globally focused undergraduate students and taking advantage of these opportunities allows public health students to gain a deeper understanding of the different health challenges that people face outside of the United States.

4) Include handbooks, websites, forms and other documentation relating to the cumulative experience and field exposure. Provide hyperlinks to documents if they are available online, or include electronic copies of any documents that are not available online.

Information about the internship experience can be viewed on the dedicated College of Public Health internship website page.

See the uploaded Internship Manual in **ERF D12**.

Information about the study abroad opportunities can be viewed on the dedicated College of Public Health website page.

D13. PUBLIC HEALTH BACHELOR'S DEGREE CROSS-CUTTING CONCEPTS AND EXPERIENCES

D13. Public Health Bachelor's Degree Cross-Cutting Concepts and Experiences

The overall undergraduate curriculum and public health major curriculum expose students to concepts and experiences necessary for success in the workplace, further education and lifelong learning. Students are exposed to these concepts through any combination of learning experiences and co-curricular experiences.

1) Briefly describe, in the format of Template D13-1, of the manner in which the curriculum and cocurricular experiences expose students to the concepts identified. (self-study document)

See Template D13-1 for the list of cross-cutting concepts and experiences specified for this criterion. The criterion is addressed through major core coursework offered by the College of Public Health.

Template D13-1

Concept	Manner in which the curriculum and co-curricular experiences expose students to the concepts
Advocacy for protection and promotion of the public's health at all levels of society	**HPS 178 Personal Health and Wellness** - within the curriculum we discuss how policy influences health behaviors, particular for tobacco, alcohol, and prescription drugs; **HPS 200 Intro to Public Health** - we discuss the role of policy on population health on community, institutional, county, state, national and global levels. In addition, we discuss the importance of the advocacy role family members, patients, community health workers, patient advocates, providers, policy makers and health departments play in the protection and promotion of the public's health at all levels of society. The course includes guest lectures from local public health advocates; **HPS 350 Principles of Health Education/Promotion** introduces the student to the roles of the health education specialist and health promotion professionals and health care providers and advocates for the multicultural and multigenerational populations served by public health through the health education process of assessment, planning, implementing, and evaluating for health programming and services to improve health behaviors. This includes assignments in community assessment and program planning; **HPS 387 Health Disparities and Minority Health** - we discuss the role of policy on population health on community, institutional, county, state, national and global levels. In addition, we discuss the importance of the advocacy role family members, patients, community health workers, patient advocates, providers, policy makers and health departments play in the protection and promotion of the public's health at all levels of society. The discussion of advocacy in 387 focuses specifically on the work to attain health equity and includes specific examples of advocacy at all levels of society including guest lectures from local and national health equity advocates; **HPS 433 Global Health** - lectures, class discussion and writing assignments on several topics focus on advocacy for protection and promotion of the public's health including: climate change; water, sanitation and hygiene; migration and health; conflict, war and public health; maternal health; nutrition; infectious diseases; tobacco.
Community dynamics	**HPS 200 Intro to Public Health** - Students study and learn the important role community dynamics play in the development of policy and interventions to protect and promote public health. There is a particular focus on community led interventions and the importance of understanding the specific culture and diversity of communities; **HPS 350 Principles of Health Education/Promotion** - Students study and learn the dynamics and characteristics of communities' demographics, cultural dynamics, health care resources and needs as they complete a community health needs assessment for Pima County; **HPS 387 Health Disparities and Minority Health** - Students study and learn the important role community dynamics play in the development of policy and interventions in the work toward health equity. They study various community, state and national efforts to achieve health equity and the important role understanding community dynamics play in this work. There is a particular focus on community led interventions and the importance of understanding the specific culture and diversity of communities. Local and national guest lectures, documentaries, local advocates, class lectures and reading provide examples. Particular examples from CDC and other governmental and foundation funded initiatives are included. **HPS 493a Fieldwork for Public Health** - during the internship, students work in the community and gain insight on community dynamics through their experiences at their site and as they network with a variety of partnering organizations and stakeholders

Template D13-1

Concept	Manner in which the curriculum and co-curricular experiences expose students to the concepts
Critical thinking and creativity	**HPS 178 Personal Health and Wellness** - students are asked to develop content messaging strategies for community outreach and education. Not only do they need to understand the evidence, they need to think how to creatively disseminate it to a variety of audiences; **HPS 200 Intro to Public Health** - Students are expected to analyze course content to develop ideas for interventions and\or policy to address public health issues. Students are expected to critique material presented in the course. Course assignments including class discussion, papers, activities and exams require critical thinking skills. All course lectures, reading, content assignments require the students to summarize, synthesize, analyze and apply course content; **EPID 309 Intro to Epidemiology** - The analysis project requires students to develop their own research question based on the survey and a literature review and to identify appropriate variables for analysis and presentation. In class activities throughout the semester also require students to think critically about how data are collected and summarized; **PHPM 310 Health Care in the US** - students are asked to complete bi-weekly writing assignments designed to solve contemporary health policy problems; **HPS 350 Principles of Health Education/Promotion** - Students learn to use the peer-reviewed scholarly data to identify populations at risk for health problems, examine the populations health behaviors and identify precursors for health problems and how professionals attempt to address the health problems in culturally appropriate ways. Students learn to produce a literature review, problem maps, and problem analysis that will lead to a scientifically sound age appropriate, and culturally appropriate health education intervention. the students work in teams to produce the health education intervention plan; **EHS 375 Intro to Environmental and Occupational Health** - each week, students perform in class activities that require them to identify, summarize, and develop solutions for environmental health case studies based on the accumulation of their EHS knowledge gleaned to date; **BIOS 376 Intro to Biostatistics** - Lectures and assignments (including exams) are focused on applications of statistical concepts to novel scenarios. Students are taught to critically analyze any claim through the lens of statistics and the scientific method. All the class activities and material are focused towards fostering creativity and critical thinking; **HPS 387 Health Disparities and Minority Health** - Students study and learn the important role community dynamics play in the development of policy and interventions in the work toward health equity. They study various community, state and national efforts to achieve health equity and the important role understanding community dynamics play in this work. There is a particular focus on community led interventions and the importance of understanding the specific culture and diversity of communities. Local and national guest lectures, documentaries, local advocates, class lectures and reading provide examples. Particular examples from CDC and other governmental and foundation funded initiatives are included; **HPS 433 Global Health** - critical thinking is encouraged through class discussion and group assignments particularly in relation to: politics and players in global health; funding prioritization; use of metrics; programming; health promotion; **HPS 478 Public Health Nutrition** - students are asked to read a current diet book and report the following information: concepts of the diet, how it compares to an evidenced supported diet for health, authors credentials, the science behind the diet being reported, peer reviewed journal articles on the science behind the nutrition or behavior component of the diet, what do other reliable media sources say about the premise of the diet or behavior being promoted by the book along with strengths, weaknesses and marketing of the diet book; **HPS 493a Fieldwork for Public Health** - students apply their critical and creative thinking when solving real-world problems at their internship sites. Students also demonstrate these skills when completing internship assignments for academic credit, such as the ePortfolio.

Template D13-1

Concept	Manner in which the curriculum and co-curricular experiences expose students to the concepts
Cultural contexts in which public health professionals work	**HPS 178 Personal Health and Wellness** - within the curriculum we always discuss social determinants of health related to behaviors and the importance of understanding/respecting cultural differences as public health professionals; **HPS 200 Intro to Public Health -** Course reading, lectures, discussions and assignments focus on the important role cultural context play in public health work. The course reviews social determinants of health impact on health. Guest lecturers include public health professionals and health advocates who discuss cultural differences; **EPID 309 Intro to Epidemiology** - Epi-In-Action lectures are guest lectures of Epidemiologists in the work force. Traditionally these include MPH and PhD level Epidemiologists working in veterinary medicine, hospital associated infection, asthma and allergy, autism surveillance; **HPS 387 Health Disparities and Minority Health** - A large portion of the course is dedicated to the cultural contexts in which public health professionals work. Course content reviews: the importance of CLAS standards; Title VI of the Civil Rights Act; informed consent; the history of eugenics in the US; racism; bossdom; diversity within and between cultural and community groups among other topics; **HPS 433 Global Health** - class discussion and writing assignments address need for global health workers to understand cross-cultural variation in: gender and generational roles and perspectives; ; alternative healing systems, disease etiologies and perceptions of therapeutic efficacy; attitudes towards medicine and medical workers in relation to infectious disease control (examples: polio vaccination; malaria control; Ebola pandemic control); local biology (how cultural context shapes experience of symptoms); **HPS 493a Fieldwork for Public Health** - students spend 250 contact hours in professional work settings as part of their internship and gain insight into cultural contexts.
Ethical decision making as related to self and society	**HPS 178 Personal Health and Wellness** - we discuss ethical decision making in how public health information is conveyed and as a public health professional the standards we should exhibit; **HPS 200 Intro to Public Health**: We discuss ethical decision making and public health standards. The students also discuss examples of unethical decision making and the detrimental impact this behavior has on communities (specifically under served and communities of color). We define plagiarism and discuss the penalty for plagiarism; **EPID 309 Intro to Epidemiology -** Ethical concerns in collection of data and use of data results are presented throughout the semester in readings and then in discussions of study designs; **HPS 350 Principles of Health Education/Promotion** - Students study the Health Education/Health Promotion Code of Ethics. Ethical decision-making is discussed throughout the class related to the individual, the community, the profession and the employers, with real life examples of challenges and problems and solutions; HPS **387 Health Disparities and Minority Health**: We discuss ethical decision making and public health standards. The students also discuss examples of unethical decision making and the detrimental impact this behavior has on communities (specifically under served and communities of color). Students are required to read the "Immortal Life of Henrietta Lacks". We discuss the importance of informed consent and the tragic outcomes unethical behavior has had on communities. The students watch the documentary "*No mas bebes*". There is a whole unit dedicated to the history of eugenics in the US. The course reviews bias, discrimination, racism. The course reviews policy and laws which define ethical behavior. We discuss plagiarism and the penalty for plagiarism; **HPS 433 Global Health -** topics addressing ethical decision making include: prioritization of funding in global health; structural adjustment programs' impact on health; maternal health policy; tobacco control; conflict, war and public health; climate change and ecological footprints. **HPS 493a Fieldwork for Public Health** - students learn from site supervisors and mentors about ethical decision making while on site at their internship experience

Template D13-1

Concept	Manner in which the curriculum and co-curricular experiences expose students to the concepts
Independent work and a personal work ethic	**HPS 200 Intro to Public Health** - Students work independently on exams and papers. They are held to deadlines and the importance of independent work and a work ethic are emphasized both in the classroom and in their professional lives; **EPID 309 Intro to Epidemiology** - Students complete a team project that includes both independent and team work. Part of this project includes independent work and team work. They must coordinate the project's progress; **PHPM 310 Health Care in the US** - students complete assignments independently; **BIOS 376 Intro to Biostatistics -** Lectures introduce students to the ethical implications and limitations of public health data collection and usage; HPS 387 - Students work independently on exams and papers. They are held to deadlines and the importance of independent work and a work ethic are emphasized both in the classroom and in their professional lives; **HPS 433 Global Health** in professional learning logs students conduct ethical self-reflection on how class material have impacted their thinking and career goals; ; **HPS 493a Fieldwork for Public Health** - students are responsible for negotiating the terms of their work plan and schedule with their site supervisor to complete the 250 contact hour internship demonstrating their personal work ethic. Students also work independently to complete internship assignments for academic credit
Networking	**HPS 200 Intro to Public Health**: Students are introduced to local public health professionals and community advocates. They have the opportunity to meet and interact with these guest lecturers. Lectures, discussion, reading stress the important role collaboration, networking and diverse partnerships play in public health; **HPS 350 Principles of Health Education/Promotion** -Students are introduced to speakers representing various careers and services in health promotion and in public health. Students are encouraged to interact with these professionals because often students are able to connect to other professionals, internship possibilities and job opportunities; **HPS 387 Health Disparities and Minority Health**: Students are introduced to local public health professionals and community advocates. They have the opportunity to meet and interact with these guest lecturers. Lectures, discussion, reading stress the important role collaboration, networking and diverse partnerships play in addressing the social determinants of health and health equity work in general; **HPS 493a Fieldwork for Public Health** - students launch their professional network through the internship experience. Students document the establishment of this network by creating a LinkedIn profile, to be able to connect with site supervisors and mentors and their future colleagues who are peers in the internship course
Organizational dynamics	**HPS 200 Intro to Public Health**: Students are introduced to the role organizational dynamics play in the health of people within the organization or those served by the organization; **HPS 387 Health Disparities and Minority Health** - Course content includes lectures and reading on institutionalized racism and the role organizational dynamics plays; **HPS 493a Fieldwork for Public Health** - students document their understanding of their internship agency's organizational dynamic through the foundational report that they write during the internship course

Template D13-1

Concept	Manner in which the curriculum and co-curricular experiences expose students to the concepts
Professionalism	**HPS 178 Personal Health and Wellness** - we provide many opportunities for professional growth. Student services, the Office of Diversity and Inclusion, Global Health Initiatives, and others come in at least once per semester to offer their services to our students. In addition, students are encouraged to interact in a professional and respectful manner; **HPS 200 Intro to Public Health**: Students are introduced to public health, their future role as public health professionals and the many professional opportunities within the field. In addition, students are expected to conduct themselves in a professional manner. The guest lecturers often provide opportunities for the students to volunteer; **HPS 350 Principles of Health Education/Promotion** - students are introduced to the profession of health education and health promotion, the various professionals who serve in the health promotion triad and what it takes in preparation and experience to serve and meet the needs of populations that make up the communities and this nation. Students learn what makes a professional, expected conduct and how to present self as an experienced professional through readings, classroom assignments and presentations. Students are introduced to the professional certification process for the certified health education specialist; **HPS 493a Fieldwork for Public Health** - students gain experience in professional behavior when interacting with site supervisors and partners through the internship
Research methods	**HPS 200 Intro to Public Health** - Students are introduced to basic research methods to help them understand course content; **EPID 309 Intro to Epidemiology** - Working in teams, students complete a large course project wherein they complete an online survey, evaluate the design, generate research hypothesis, identify variables, analyze dataset, generate tables and summarize analyses in a PowerPoint presentation; **HPS 350 Principles of Health Education/Promotion** - Students are introduced to the processes for data collection and applications for completion of assignments for health needs assessment, problem definition and analysis, and program planning that relates to the evidence-based research on health education/promotion interventions in peer-reviewed journals; **HPS 387 Health Disparities and Minority Health**: Students are introduced to basic research methods to help them understand course content; **HPS 433 Global Health** - students conduct an analysis of a peer reviewed journal article including assessment of research methods used.
Systems thinking	**BIOS 376 Intro to Biostatistics -:** Students are introduced to the concepts of systems thinking through data driven examples of public health systems; **HPS 493a Fieldwork for Public Health** - site supervisors give students feedback on their development of systems thinking as part of the evaluation of the student intern's performance

Template D13-1

Concept	Manner in which the curriculum and co-curricular experiences expose students to the concepts
Teamwork and leadership	**HPS 178 Personal Health and Wellness** - the group project is solely based on teamwork, with one person identified as the group leader. As mentioned above, it provides them with an opportunity to work together as public health professionals to educate the community; **HPS 200 Intro to Public Health** - The importance of teamwork to successful public health interventions particularly interprofessional teams with diverse stakeholders is emphasized; **EPID 309 Intro to Epidemiology** - Students work in teams for the major analysis project. With the complexity of the project, students must work together and identify leadership opportunities; **HPS 350 Principles of Health Education/Promotion** - Great emphasis is placed on the importance of team work in public health in addressing important health challenges. Two major assignments in the course are built on the principles of strong team work in addressing solutions to health education/health promotion challenges. Students are assigned to teams of 5-6 people who work to produce a written health needs assessment and then a health education intervention for an identified target population. The teams are also required to make presentations on their work to their classmates and faculty; **BIOS 376 Intro to Biostatistics** - Data analytical class activities are team based and students are encouraged to work together and take initiative to help others; **HPS 387 Health Disparities and Minority Health** - The importance of teamwork to the success of health equity initiatives, particularly interprofessional teams with diverse stakeholders is emphasized throughout the course; **HPS 478 Public Health Nutrition** - the students work in groups throughout the semester for weekly in-class projects and presentations as well as the semester long presentation. While no formal group leadership is identified an informal leader usually emerges from the activities given to the group; **HPS 493a Fieldwork for Public Health** - students work within a team as they make significant contributions to their internship sites

2) **Provide syllabi for all required coursework for the major and/or courses that relate to the domains listed above. Syllabi should be provided as individual files in the electronic resource file and should reflect the current semester or most recent offering of the course. (electronic resource file)**

See uploaded syllabi in the **ERF D10**.

3) **If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.**

Not applicable.

D14. MPH PROGRAM LENGTH

D14. MPH Program Length

An MPH degree requires at least 42 semester-credits, 56 quarter-credits or the equivalent for completion. Schools use university definitions for credit hours.

1) **Provide information about the minimum credit-hour requirements for all MPH degree options. If the university uses a unit of academic credit or an academic term different from the standard semester or quarter, explain the difference and present an equivalency in table or narrative form**.

   The MPH Program requires 42 semester-credits for graduation. This is the same for all MPH concentrations.

2) **Define a credit with regard to classroom/contact hours.**

   A semester credit hour is considered the equivalent of 15 50-minute class periods during a semester. Courses can be taught anywhere from once a week (150-minute class), two times per week (75-minute classes) or three times per week (50-minute classes). A complete description of how semester credit hours are determined by the UA for various types of courses (laboratories, field trips, off-campus courses, online courses, etc.) is available at: https://catalog.arizona.edu/policy/credit-definitions and in **ERF D14**.

D15. DrPH PROGRAM LENGTH

D15. DrPH Program Length

The DrPH degree requires a minimum of 36 semester-credits of post-master's coursework or its equivalent. Credits associated with the integrative learning experience and, if applicable, a residency, internship or other applied practice experience conducted outside of a didactic course, do not count toward this requirement. The minimum credit requirement also does not count MPH-level prerequisite courses or their equivalent.

Schools use university definitions for credit hours.

1) **Provide information about the minimum credit-hour requirements for all DrPH degree options. If the university uses a unit of academic credit or an academic term different from the standard semester or quarter, explain the difference and present an equivalency in table or narrative form.**

   The DrPH program requires a minimum of 64 semester-credit hours of which 18 semester-credits are an integrative learning experience (dissertation). The remaining 46 semester-credits of course work are courses beyond our MPH-level pre-requisite courses. The MEZCOPH Curriculum Guide provides a complete description of the credit hours required for the DrPH program and is located on the College's website at: https://publichealth.arizona.edu/graduate-students and in the **ERF A5**.

2) **Define a credit with regard to classroom/contact hours.**

   A semester credit hour is considered the equivalent of 15 50-minute class periods during a semester. Courses can be taught anywhere from once a week (150-minute class), two times per week (75-minute classes) or three times per week (50-minute classes). A complete description of how semester credit hours are determined by the UA for various types of courses (laboratories, field trips, off-campus courses, online courses, etc.) is available at: https://catalog.arizona.edu/policy/credit-definitions and in the **ERF D14**.

D16. BACHELOR'S DEGREE PROGRAM LENGTH

D16. Bachelor's Degree Program Length

A public health bachelor's degree requires completion of a total number of credit units commensurate with other similar degree schools in the university.

Schools use university definitions for credit hours.

1) **Provide information about the minimum credit-hour requirements for all bachelor's degree options. If the university uses a unit of academic credit or an academic term different from the standard semester or quarter, explain the difference and present an equivalency in table or narrative form.**

   The Bachelor of Science with a major in Public Health requires 120 semester-credits for graduation. This includes 58 semester-credits in the major (31 semester-credits from public health core courses, six semester-credits of internship, 12 semester-credits within an emphasis area and nine semester-credits of public health electives.)

2) **Define a credit with regard to classroom/contact hours.**

   A semester credit hour is considered the equivalent of 15 50-minute class periods during a semester. Courses can be taught anywhere from once a week (150-minute class), two times per week (75-minute classes) or three times per week (50-minute classes). A complete description of how semester credit hours are determined by the UA for various types of courses (laboratories, field trips, off-campus courses, online courses, etc.) is available at: https://catalog.arizona.edu/policy/credit-definitions and in the **ERF D14**.

3) **Describe policies and procedures for acceptance of coursework completed at other institutions, including community colleges.**

   Students transferring to the UA from another institution have their transcripts reviewed by a Student Academic Specialist in the Office of the Provost using a transfer credit guide. The complete transcript is reviewed and the number of credits that can be applied to a UA degree is provided to the student.

   Students who want to use a previous course to substitute for a specific UA course must provide a copy of the syllabus for the course that was already taken. It must include the textbook used, a list of topics covered each week, the number of lecture hours per week, the number of lab hours each week (if applicable), and the topics covered in the lab each week. Additionally, MEZCOPH faculty members also approve courses that are being used to substitute a MEZCOPH course.

4) **If applicable, provide articulation agreements with community colleges that address acceptance of coursework.**

   The UA uses the Arizona Course Equivalency Tracking System (ACETS) to move courses from the Arizona supported community colleges. ACETS is a web-based application that tracks course equivalency decisions, including Shared Unique Numbered (SUN) courses, as the courses move through the statewide evaluation and articulation process. ACETS supports all decision-making required to establish equivalencies in Arizona beginning with the initial request for an equivalency evaluation and ending with the creation of a report to be used by Arizona university encoders. ACETS tracks the timeframe for course equivalency from source institution to target institution and triggers a report to target institutions when timelines are outside normal boundaries. A target school records its decision in ACETS within 45 days and encodes it within 15 days. Institutions can check recent information activity by querying the database.

   Additionally, the ACETS includes an application for institutions to identify any changes they make to Exam Equivalency Guide. AZTransfer staff review these changes and make the appropriate changes. Please see the document AZTransfer Handbook and Policy Manual.pdf in the **ERF D16** for a complete description of how credits

5) Provide information about the minimum credit-hour requirements for coursework for the major in at least two similar bachelor's degree programs in the home institution.

The Bachelor of Science with a major in Care, Health and Society requires 120 semester-credits for graduation. This includes a minimum of 39 semester-credits, including 15 semester-credits of major core courses, 6 semester-credits focusing on analytical skills, 3 semester-credits of internship, and 15 semester-credits within a career track.

The Bachelor of Science in Health Sciences with a major in Physiology requires a minimum of 120 semester-credits for graduation. This includes a minimum of 30 semester-credits, including 17 semester-credits of core courses and 13 semester-credits of electives.

D17. ACADEMIC PUBLIC HEALTH MASTER'S DEGREES

D17. Academic Public Health Master's Degrees

These students also complete coursework and other experiences, outside of the major paper or project, that substantively address scientific and analytic approaches to discovery and translation of public health knowledge in the context of a population health framework.

Finally, students complete coursework that provides instruction in the foundational public health knowledge at an appropriate level of complexity. This instruction may be delivered through online, in-person or blended methodologies, but it must meet the following requirements while covering the defined content areas.

The school identifies at least one required assessment activity for each of the foundational public health learning objectives.

The school validates academic public health master's students' foundational public health knowledge through appropriate methods.

1) List the curricular requirements for each relevant degree in the unit of accreditation.

The college offers academic degree programs in four areas: Biostatistics, Epidemiology, Environmental Health Sciences and Health Behavior Health Promotion. Each of these programs have an academic master's degree MS (MSPH for Health Behavior Health Promotion) and a PhD program. Students are either accepted directly into the PhD program for Health Behavior Health Promotion or into MSPH/PhD program if they do not have a master's degree. The requirements for these degrees are listed in the **Tables D1-D4.**

Table D1: MS Biostatistics Academic Degree Curriculum (39 units)

Required Courses (27 units)

EPID 573A	Basic Principles of Epidemiology (3)
BIOS 576A	Biostatistics in Public Health (3)
BIOS 576B	Biostatistics for Research (3)
BIOS 576C	Applied Biostatistics Analysis (3)
BIOS 585	Public Health Fundamentals for Researchers (3)
BIOS 647	Analysis of Categorical Data (3)
BIOS 688	Statistical Consulting (3)
MATH 564	Theory of Probability (3)
MATH 566	Theory of Statistics (3)

Elective Courses * (6 units)

At least 6 units from the following courses:

BIOS 648	Analysis of High Dimensional Data (3)
BIOS 675	Clinical Trials and Intervention Studies (3)
BIOS 684	General Linear and Mixed Effects Models (3)
BIOS 686	Survival Analysis (3)

Other elective courses:

BIOS 576D	Data Management and the SAS Programming Language (3)
EPID 677	Genetic Association Studies (3)
BIOS 685	Special Topics in Biostatistics (3)
BIOS 687	Theory of Linear Models (3)
STAT 571A	Advanced Statistical Regression Analysis (3)
STAT 571B	Design of Experiments (3)
STAT 675	Statistical Computing (3)

*Electives may also be chosen from courses taught in other programs with approval of the Biostatistics Faculty Advisor.

Required Master's Thesis: BIOS 910 (6 units)

Table D2: MS Environmental Health Sciences Academic Degrees Curriculum

Required Major Courses (24 units):

EPID 573A	Basic Principles of Epidemiology (3)
BIOS 576A	Biostatistics in Public Health (3)
BIOS 576B	Biostatistics for Research (3)
EHS 584	Fundamentals of Industrial and Environmental Health (3)
EHS 585	Public Health Fundamentals for Researchers (3)*****
EHS 502	Environmental Monitoring and Analysis (3)
EHS 653	Applied Exposure Assessment (3)
EHS 696R	Environmental Health Seminar (1 unit each semester – **3 times**)

***** (or advisor approved substitution)

Elective Courses: Minimum of **12 elective units** required for the MS (approved by faculty advisor). Students select courses in areas of emphasis: Exposure and Risk Assessment, Climate and Health, Environmental Contaminant Modeling or Occupational Health and Safety.

Required Master's Thesis: **EHS 910** (6 units)

Table D3. MS Epidemiology Academic Degrees Curriculum (42 units)

Required Major Courses (**30 units**)

EPID 573A	Basic Principles of Epidemiology (3)
EPID 573B	Epidemiologic Methods (3)
EPID 573C	Advanced Epidemiology (3)
BIOS 576A	Biostatistics for Public Health (3)
BIOS 576B	Biostatistics for Research (3)
EPID 585	Public Health Fundamentals for Researchers (3)
EPID 660	Infectious Disease Epidemiology (3)
EPID 670	Chronic Disease Epidemiology (3) or EPID 615A Cancer Epidemiology and Prevention (3)
EPID 696A	Epidemiology Seminar (1 unit - 3 times), (or equivalent: approved by Faculty Advisor)
BIOS XXX	Biostatistics beyond BIOS 576B (3)

Epidemiology Courses or Approved Electives (**6 or more units** – Approved by Faculty Advisor). There is a maximum of 6 units from Independent Study/Research Credit (EPID 599, 699.)

Required Master's Thesis, EPID 910 (**6 units**)

Table D4. MSPH Health Behavior Health Promotion Academic Degrees Curriculum (40 units)

Required Major Courses (25 units)

HPS 531	Contemporary Health Issues & Research (3)
HPS 585	Public Health Fundamentals for Researchers (3)
BIOS 576A	Biostatistics in Public Health (3)
BIOS 576B	Biostatistics for Research (3) *
HPS 607	Qualitative Research Methods in Public Health (3)
HPS 620A	Advanced Research Methods in Health Promotion I (3) ***§***
HPS 620B	Advanced Research Methods in Health Promotion II (3) ***§***
HPS 696L	Health Behavior Health Promotion Seminar (1)

HPS Selective Course (minimum of 3 units)
(may be met with any HPS offered 3+ unit, 500+ level course or another health promotion related course (e.g. EPID 573A; EPID 646; EPID 671; COMM 669) approved by Faculty Advisor

US Minority/Health Disparities Course (3 units)

HPS 535**	Multicultural Health Beliefs) (3) Or
HPS 605**	Community-based Participatory Action Research to Decrease Health Disparities (3)

Other Electives - **minimum of 6 units**

Required Master's Thesis: HPS 910 - **6 units**

Additional core requirements for the PhD post completion of the MSPH (33 units)

Required Courses - **(6 units)**

HPS 609	Evaluating the Public Health Literature (1)
HPS 696L	HBHP Seminar (1) ***§***
HPS ###	Selective Course (minimum of 4 units)

*** Note:** BIOS 576A or another introductory graduate statistics course is a prerequisite for BIO 576B. Another graduate statistics course beyond an introductory graduate statistic course and with a minimum coverage of multiple linear/GLM or logistic regression may be considered with approval of the student's Faculty Advisor and the Program Director.

****** (if not already used to fulfill the US minority health/disparities requirement)

§ **Permanent** courses addressing this content as assessed by the Program Director are acceptable substitutions.

2) Provide a matrix, in the format of Template D17-1, that indicates the required assessment opportunities for each of the defined foundational public health learning objectives (1-12). Typically, the school will present a separate matrix for each degree school, but matrices may be combined if requirements are identical.

EHS 585 Public Health Fundamentals for Researchers is a required course for all the academic public health degrees in MEZCOPH. The course addresses each foundational public health learning objective. Template D17-1 identifies what this course covers.

Template D17-1 Content Coverage for Academic Public Health Master's Degree (SPH and PHP, if applicable)		
Content	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Explain public health history, philosophy and values	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
2. Identify the core functions of public health and the 10 Essential Services*	EHS 585 Public Health Fundamentals for Researchers	WRPHTC Course: Public Health Essentials in Action, pass post-test.
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
6. Explain the critical importance of evidence in advancing public health knowledge	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
7. Explain effects of environmental factors on a population's health	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
8. Explain biological and genetic factors that affect a population's health	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
9. Explain behavioral and psychological factors that affect a population's health	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
11. Explain how globalization affects global burdens of disease	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health)	EHS 585 Public Health Fundamentals for Researchers	EHS 585: Weekly Summaries, Weekly Participation

3) Provide a matrix, in the format of Template D17-2, that lists competencies for each relevant degree and concentration. The matrix indicates at least one assessment activity for each of the listed competencies. Typically, the school will present a separate matrix for each concentration. Note: these competencies are defined by the school and are distinct from the foundational public health learning objectives defined in this criterion.

Template D17-2.1 Assessment of Competencies for MS Biostatistics		
Competency	**Course numbers**	**Describe specific assessment opportunity**
1. To demonstrate understanding of basic concepts of probability, random variation and commonly used statistical probability distributions.	BIOS 576A Biostatistics in Public Health BIOS 647 Analysis of Categorical Data	BIOS 576A-Each exam students need to demonstrate how well they are able to use basic statistical concepts such as from probability, distributions, estimations to hypothesis testing and multivariate analysis. BIOS 647-Final exam assesses students on their understanding of categorical data.
2. To demonstrate the ability to skillfully engage in statistical collaboration with mentors, colleagues, and clients.	BIOS 576C Applied Biostatistical Analysis BIOS 688 Statistical Consulting	BIOS 576C-Students are assessed how well they work with groups and other investigators through required data analysis projects. BIOS 688- Weekly verbal and written summaries of these meetings with university researchers seeking statistical services are assessed including their summary reports for each project that is shared with the project investigator.
3. To recognize strengths and weaknesses of proposed statistical approaches, including alternative designs, data sources, and analytical methods.	BIOS 576B Biostatistics for Research	BIOS 576B-Homework on predictor selection methods, modeling strategies and how to conduct hypothesis testing.
4. To suggest preferred methodological alternatives to commonly used statistical methods when assumptions are not met.	BIOS 576A Biostatistics in Public Health BIOS 576B Biostatistics for Research BIOS 576C Applied Biostatistical Analysis	BIOS 576A-Students need to explain the appropriate assumptions for each statistical method through their homework, quizzes and exams. BIOS 576B-Students are assessed on how well they compare approaches based on assumptions and goals of the analysis, eg logistic versus Cox version Poisson. BIOS 576C- Students are assessed how well they have selected appropriate statistical methods that were used during their projects.
5. To demonstrate advanced competencies in areas of professional expertise and scholarship enabling advancement to further postgraduate study in statistics or biostatistics.	BIOS 688 Statistical Consulting	BIOS 688-students are evaluated on how they work with investigators on current research projects to provide the statistical assistance that is needed. BIOS 910 – Students are evaluated on how well they demonstrated their competence in biostatistics and ability to provide a written and oral academic research presentation.

Template D17-2.2 Assessment of Competencies for MS Environmental Health Sciences		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. To demonstrate fundamental knowledge of the principles of environmental health sciences and be able to apply them.	EHS 518 Introduction to Human Health Risk Assessment	Students' homework is assessed on microbial risks and chemical hazard identification.
	EHS 696R Environmental & Occupational Health Seminar	Students' written evaluation for each seminar are assessed on their fundamental knowledge of environmental health sciences.
2. To develop and implement a basic study design addressing a testable hypothesis.	EHS 653 Applied Exposure Assessment	Students are assessed on developing an environmental health research design for their semester long project that includes a final proposal and report.
3. To implement assigned research or work tasks including, data collection and management, evaluation, and data analysis.	EHS 653 Applied Exposure Assessment	Students are assessed on their data collection and management of environmental health data through a data analysis assignment and statistics assignment.
4. To utilize risk assessments and models.	EHS 518 Introduction to Human Health Risk Assessment	Homework exercises are evaluated that have students develop and utilize dose response curves to predict health outcomes. Homework exercise requires students to search the literature for information on chemical exposure potentials and exposure assessment data to characterize chemical intake risks. Homework exercise provides hands on practice for students to program and apply Monte Carlo simulation software to characterize exposure, risk and management impacts.
	EHS 653 Applied Exposure Assessment	Students assessed using an exposure modeling assignment and they need to complete an exposure calculations and hazard rankings assignment.
5. To demonstrate knowledge of local, federal and state regulatory programs.	EHS 585 Public Health Fundamentals for Researchers	Students are assessed on their knowledge of regulatory programs through two 6-page paper summaries of site visits and the functions of regulatory agencies. Site visits take place at the Pima County Board of Health and the Mariposa Food Inspection [USDA and FDA].
	EHS 696R Environmental & Occupational Health Seminar	Students understanding of regulatory programs are assessed through written evaluations of speakers' presentations arranged from a variety of expertise including local, state, and federal regulatory agencies.
	EHS 584 Fundamentals of Industrial and Environmental Health	Reading reflection (usually week 11) & in class exercises on regulations are assessed to determine student knowledge of regulatory programs.

Template D17-2.2 Assessment of Competencies for MS Environmental Health Sciences		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
	EHS 518 Introduction to Human Health Risk Assessment	Exam 2 evaluation questions require students to describe knowledge of risk management approaches and acceptability based on risk perceptions and within regulatory standards and guidelines.
	EHS 653 Applied Exposure Assessment	A student's completion of a Regulatory Audit Checklist is assessed.
6. To identify and communicate to the appropriate people the need for resources to minimize health and safety risks.	EHS 653 Applied Exposure Assessment	Students are assessed on their ability to identify environmental health and safety risks based on how well they complete a Walkthrough Checklist.

D17-2.3 Assessment of Competencies for MS Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Select appropriate study design for assessing the association between a given exposure and an outcome, and then understanding advantages and limitations of these approaches.	EPI573a Basic Principles of Epidemiology	EPID 573A Problem Set (PS) 6, questions 6.16 – 6.19 describe the advantages and disadvantages of each of the listed study designs.
	EPID 573B Epidemiologic Methods	EPID 573B Assessment is via Assignments1-4: outline the components of case-control studies; Assignment 5 describing findings from cohort studies; Assignment 6 describing biases within study designs; Assignment 7 designing a study then discussing and revising with classmates. These concepts are then included on quizzes 1 & 2, the midterm and final.
	EPID 573C Advanced Epidemiology	EPID 573C: Course Project: In the course project, students will select a study design and develop a data analysis plan based on their literature review to address research questions on a specific public health issue. Midterm: Students will read a published epidemiological research paper and provide critiques on the overall study including student design, and compare the study design used in the paper with other study designs to discuss their strengths and limitations. Student-led review: Students will work on a critical public health issue to understand the literature and scientific evidence related to guideline or policy developments for the issue. Students will address strengths and limitations of the study designs used in these published papers in supporting guideline and policy development on the specific topic.
	EPID 660 Infectious Disease Epidemiology	EPID 660 Homework 1: Students are asked to develop a study design to examine the potential association between microcephaly and Zika infection.
	EPID 670 Chronic Disease Epidemiology	EPID 670 Project 4: Research Proposal and Presentation - Students develop a research proposal for a chronic disease epidemiology study. For this research design, they write an NIH-style Specific Aims page and create a 15-minute presentation that describes the study design,

D17-2.3 Assessment of Competencies for MS Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
		hypothesis, proposed methods, strengths, and limitations of their proposed study.
2. Critique and synthesize appropriate literature and research findings to address a research question.	EPID 573C Advanced Epidemiology	EPID 573C Course Project: In the course project, students will do a literature search and review on a selected public health topic to construct research questions for their course project and present their findings in class as well as synthesize findings from previous studies in their paper as the Final Exam for the course. The dataset will be drawn from the nationwide Women's Health Initiative. Student-led review: Students will work on a critical public health issue to synthesize appropriate literature and scientific evidence related to guideline or policy developments on the issue.
	EPID 660 Infectious Disease Epidemiology	EPID 660 Final review paper – students conduct a rapid systematic review on a topic of their choosing and describe the overall strength of a relationship. Weekly discussions and discussion leader reflections: Students will lead discussion groups twice during the semester. All students in the class will post questions in response to the readings assigned; one applied reading (typically an outbreak investigation) and one research study reading. Student leaders aggregate these questions and must discuss at least two of the STROBE criteria during their weekly discussion groups. They then write a short reflection summarizing the discussion with their peers.
	EPID 670 Chronic Disease Epidemiology	EPID 670 Project 2: Chronic Disease Literature Review - Students conduct literature review summarizing the existing literature on the epidemiology of a chronic disease. This review is summarized in a 5-page report. This report must include a review of the current literature and create tables for the incidence/prevalence of the

D17-2.3 Assessment of Competencies for MS Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
		disease, as well as review at least two risk-factors associated with the chronic disease. As part of their thesis all MS Epi students are required to include a background section which summarizes the state of the literature on the specific topic. This competency is also assessed when the student's thesis is evaluated.
3. Identify potential sources of bias for various study designs and their impact on study quality.	EPI573a Basic Principles of Epidemiology EPID 573B Epidemiologic Methods EPID 573C Advanced Epidemiology	EPID 573A - Epi Paper Critique Project – describe the potential biases that may affect a published study and how this may affect the interpretation of results. PS 9 questions 1-19 EPID 573BAssessment of bias within study design issues listed above in (2) along with Assignment 8 on reliability and misclassification (also assessed on the midterm). EPID 573C **Course Project:** In the course project, students will identify, address and discuss potential biases, confounding and effect modification that affect their analyses and findings. **Midterm:** Students will read a published epidemiological research paper and provide critiques on the study including potential biases, confounding and effect modification that can affect the findings of the study. Student-led review: Students will work on a critical public health issue to understand the literature and scientific evidence for guideline or policy developments pertaining to the issue. Students will address potential biases, confounding, and effect modification that can affect epidemiological studies and analyses used for the guideline or policy development. **Homework 2:** Students will use a simulated dataset to identify, recognize and describe potential biases, confounding, and effect modification that can affect epidemiological studies and analyses.

D17-2.3 Assessment of Competencies for MS Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
	EPID 670 Chronic Disease Epidemiology	EPID 670 Project 4: Research Proposal & Presentation - Students develop a research proposal for a chronic disease epidemiology study. For this research design, they write an NIH-style Specific Aims page and create a 15-minute presentation that describes the study design, hypothesis, proposed methods, strengths, and limitations of their proposed study. The students will present portions of this proposal prior to the final submission for review by their peers.
4. Conduct descriptive and analytic analyses, including strategies to assess confounding and effect modification methods, to make statistical inferences.	EPI573a Basic Principles of Epidemiology	EPID 573A PS 9 questions 1-19; PS 10 questions 1-7 includes conducting analyses of data to assess for confounding and effect modification
	EPID 573B Epidemiologic Methods	EPID 573B Assessment of confounding and effect modification is via Assignments 10-17 including calculating crude, stratum specific and adjusted ORs/RRs by hand and using logistic regression techniques along with interpreting models presented in published papers and from STATA and SAS output. This material is also assessed on quizzes 3 & 4 and the final exam.
	EPID 573C Advanced Epidemiology	573C Course Project: In the course project, students will develop a data analysis plan to conduct descriptive and analytic analyses on a selected research topic using the dataset from the Nationwide Women's Health Initiative. Students will identify, address and discuss potential biases, confounding and effect modification that affect their analyses and findings in their analysis, presentation and final paper.
	EPID 670 Chronic Disease Epidemiology	EPID 670 Project 3: Data Analysis Report – Students create a data analysis report that presents the descriptive epidemiology of a chronic disease and risk factor. Students will synthesize and analyze secondary public health surveillance data (state, national, or international) to describe the current epidemiology of the chosen disease and risk factor. Effect measures are to be calculated and presented in the report.

D17-2.3 Assessment of Competencies for MS Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
		Students are required to conduct their own research for their thesis. This will necessarily include data analysis and interpretation.
5. Describe public health surveillance systems and their underlying data sources.	EPID 660 Infectious Disease Epidemiology	EPID 660 Homework 2: Students assess five different types of surveillance system, including standard passive surveillance for simplicity, flexibility, acceptability, data quality, sensitivity and predictive value positive (PvP), representativeness, timeliness, cost / resources. They then select one of four novel surveillance strategies and conduct a mini-literature review.
	EPID 670 Chronic Disease Epidemiology	EPID 670 Project 3: Data Analysis Report – Students create a report that presents the descriptive epidemiology of a chronic disease and risk factor utilizing secondary public health surveillance data (state, national, or international) to describe the current epidemiology of the chosen disease and risk factor. Students must describe the public health surveillance system used and its underlying data structure.
6. Demonstrate ability to manage and analyze epidemiological data from a variety of sources.	EPID 573B Epidemiologic Methods	EPID 573B Assessment is via analyses of data and individually to consider coding of variables before running analyses, running analyses in SAS or STATA then presenting the methods used and results from STATA or SAS output in a Table format as if for publication. This material is also partially assessed on quiz 4 and the final exam.
	EPID 670 Chronic Disease Epidemiology	EPID 670 Project 3: Data Analysis Report – Students create a report that presents the descriptive epidemiology of a chronic disease and risk factor. Students identify appropriate secondary public health surveillance data (state, national, or international) to describe the current epidemiology of the chosen disease and risk factor. They then must download the data and obtain appropriate analyses. Included in the report will be a summary of the

D17-2.3 Assessment of Competencies for MS Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
		methodology, de novo tables and figures, and an interpretation of the findings.
7. Organize and deliver clear presentations of research findings in varying professional formats to diverse audiences.	EPID 573B	EPID 573B Assessment is via presenting methods and results from class analyses in written format as if for publication. This prepares students to take these concepts further in EPID 573C.
	EPID 573C Advanced Epidemiology	EPID 573C Course Project: In the course project, students will write an abstract, give an oral presentation in class and write a final paper to interpret these epidemiological analyses. They will organize and deliver the presentations in different professional formats to diverse audiences.
	EPID 660 Infectious Disease Epidemiology	Final presentation: In the last two class sessions students present the findings of their rapid review which summarizes the evidence in the epidemiological literature.
	EPID 670 Chronic Disease Epidemiology	EPID 670 Project 1: Presentation on Classical Chronic Disease Studies - Students will prepare a 10-minute presentation describing an existing epidemiologic study of chronic disease and summarizing key epidemiologic findings from this study. Project 4: Research Proposal and Presentation - Students write an NIH-style Specific Aims page and create a 15-minute presentation on a research proposal for a chronic disease epidemiology study. All MS students are required to present their thesis work to a broad audience. This is a seminar-style presentation of approximately one hour.

Template D17-2.4 Assessment of Competencies for MSPH in Health Behavior Health Promotion		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Describe the role of behavioral and health promotion research on health and the types of variables used in this area.	HPS 531 Contemporary Health Issues and Research	HPS 531 Final projects / paper are evaluated on their assessment of research evidence and its implication on future health behavior research.
2. Identify strengths and gaps of core public health knowledge and their influence on the type of Health Behavior Health Promotion research that is needed.	HPS 585 Public Health Fundamentals for Researchers	Weekly summaries of public health topics are evaluated on how well students identify the influence of these topics on the type of research that is or should be conducted.
3. Describe contemporary health issues in health promotion	HPS 531 Contemporary Health Issues and Research	Students' responses to quizzes are evaluated on their understanding of current health behavior issues (S 2019). Students are evaluated on how well they describe orally and in writing critiques of research papers on six contemporary health promotion issues (physical activity, sexual health, interpersonal violence, mental health and substance use, diet and nutrition, and tobacco use)
4. Design and conduct qualitative studies and instruments including data collection, management and analysis in order to better understand health behavior.	HPS 607 Qualitative Research Methods in Public Health (Magrath S 2019)	Skills on qualitative methods including developing interviews, focus groups, coding and data analysis are presented in a final product that is evaluated by the instructor.
5. Utilize higher level statistical methods to analyze health behavior data	BIOS 576B Biostatistics for Research	Homework and exams assess a student's ability to appropriately conduct higher level statistical tests when studying health behavior using stratified analysis, logistic regression, survival analysis, and other hazard models.

4) **Identify required coursework and other experiences that address the variety of public health research methods employed in the context of a population health framework to foster discovery and translation of public health knowledge and a brief narrative that explains how the instruction and assessment is equivalent to that typically associated with a three-semester-credit course**.

All students are required to take EHS 585 Public Health Fundamentals for Researchers which is a 3-unit course. Additionally, all students take BIOS 576A Biostatistics in Public Health which is another 3-unit course. Health Behavior Health Promotion students also take the 3-unit course HPS 607 Qualitative Research Methods in Public Health. Additionally, all students are required to conduct a thesis that employs public health research methods for their area of study. See **ERF D17**.

5) **Briefly summarize policies and procedures relating to production and assessment of the final research project or paper**.

All students in an academic master's degree program are required to complete a thesis. Although the policies and procedures related to the thesis are similar for each program, an explanation for the nuances between is provided below.

Biostatistics

A thesis is required for the MS degree. The content of the MS thesis is flexible, but it must be more substantial than a standard statistical analysis. Examples of possible topics include: a simulation study to investigate a statistical method; a complex data analysis involving a comparison of different approaches; or an extension or novel use of an existing statistical method. It cannot be an analysis performed for a class, although this might serve as a minor portion of the thesis. Prior to initiating the research for the thesis, the student must submit a "prospectus" to their Thesis Committee, outlining the student's academic progress to date, studies to be completed prior to writing the thesis and an outline of the research to be included in the thesis. The student then meets with the Thesis Committee to discuss the prospectus and to formulate any new plans deemed appropriate.

Epidemiology

A thesis is required for the MS degree. Prior to initiating the research for the thesis, the student must submit a "prospectus" (< 5 pages) outlining the proposed research/thesis topic to their Thesis Committee. They should also outline her or his academic progress to date, and courses to be completed prior to writing the thesis. The student then meets with the Thesis Committee to discuss the prospectus and to formulate any new plans deemed appropriate.

Environmental Health Sciences

The thesis is undertaken after the first year of coursework. The student selects a mentor, writes a one-page document describing the proposed research, and identifies a three- person Thesis Committee. The committee meets with the student and examines the plan of study making recommendations regarding course work and discusses the one-page proposal with the student. The committee meeting occurs near the end of the second semester in the program. The scope of the hypothesis driven proposed research will be narrower than that for a PhD dissertation. In the final semester, the student must circulate a written draft of the thesis: first it must be approved by the major advisor. When the Thesis Director considers the thesis sufficiently complete, the student submits a draft copy to Thesis Committee at least one month prior to the proposed defense date. The student makes all required changes with repeated reviews if required. Once the written draft is approved by the director and the committee, the student presents the thesis in a public forum. A defense of the thesis by the research committee follows the presentation. It is expected that the findings of the thesis project will be publishable in a peer-reviewed journal in the student's area of research.

Health Behavior Health Promotion

A thesis is required for the MSPH degree. Prior to initiating the research for the thesis, the student must submit a one page written "prospectus" to their Thesis Committee outlining the approach to be taken, the methodology to be used, additional expertise that the student must develop to execute the project, the expected results and the source of project funding if required. The student then meets with the Thesis Committee to discuss the prospectus and to formulate any additional plans the committee deems appropriate, such as subsequent committee meeting with a more detailed research plan (e.g., introduction and methods).

The thesis is typically undertaken after the first year of coursework. The student will have a thesis adviser or mentor for this project, agreed to by the student and faculty mentor. As described the student writes a one-page document describing the proposed research, and with the mentor identifies a three-person Thesis Committee. The scope of the rigorous proposed research, typically with a goal of leading to a peer-reviewed publication, will be narrower than that for a PhD dissertation (see the "Dissertation" section above for further distinction).
In the final semester, the student must circulate a written draft of the thesis. First it must be approved by the major advisor. When the Thesis Director considers the thesis sufficiently complete, the student submits a draft copy to
Thesis Committee at least one month prior to the proposed defense date. The student makes all required changes with repeated reviews if required. Once the written draft is approved by the director and the committee, the student presents the thesis in a public forum. A defense of the thesis by the research committee follows the presentation. It is expected that the findings of the thesis project will be publishable in a peer-reviewed journal in the student's area of research.

Human Subjects
For all degrees, if work included in the thesis involves human subjects, even if it involves secondary data analysis, the student must have IRB or college approval/exemption before starting on this work. It is the responsibility of the student in consultation with the Thesis Director to obtain the approvals, and conform to ethical research standards. See the "Human Subjects Approval for Dissertation/Thesis Projects" section above for more information on the Human Subjects approval process. Preparation of the written thesis follows the Graduate College guidelines.

6) Provide links to handbooks or webpages that contain the full list of policies and procedures governing production and assessment of the final research project or paper for each degree school.

The student handbooks that lay out the policies and procedures governing the academic public health degrees are provided in **ERF D17.1.**

7) Include completed, graded samples of deliverables associated with the major paper or project. The school must provide at least 10% of the number produced in the last three years or five examples, whichever is greater.

See **ERF D17.2** for five MS theses.

8) Briefly explain how the school ensures that the instruction and assessment in basic public health knowledge is generally equivalent to the instruction and assessment typically associated with a three-semester-credit course.

All students in an academic master degree public health degree program are required to take the 3-unit course EHS 585 Public Health Fundamentals for Researchers. This course addresses and assesses students on the 12 identified areas regarding basic public health knowledge. The syllabus for this course is in **ERF D17.3.2**.

9) Include the most recent syllabus for any course listed in the documentation requests above, or written guidelines for any required elements that do not have a syllabus.

Courses identified above are in the **ERF D17.3**

10) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

D18. ACADEMIC PUBLIC HEALTH DOCTORAL DEGREES

D18. Academic Public Health Doctoral Degrees

These students also complete coursework and other experiences, outside of the major paper or project, that substantively address scientific and analytic approaches to discovery and translation of public health knowledge in the context of a population health framework.

These students complete doctoral-level, advanced coursework and other experiences that distinguish the school of study from a master's degree in the same field.

The school defines appropriate policies for advancement to candidacy, within the context of the institution.

Finally, students complete coursework that provides instruction in the foundational public health knowledge at an appropriate level of complexity. This instruction may be delivered through online, in-person or blended methodologies, but it must meet the following requirements while covering the defined content areas.

The school identifies at least one required assessment activity for each of the foundational public health learning objectives.

The school validates academic doctoral students' foundational public health knowledge through appropriate methods.

1) **List the curricular requirements for each non-DrPH doctoral degree in the unit of accreditation, EXCLUDING requirements associated with the final research project. The list must indicate (using shading) each required curricular element that a) is designed expressly for doctoral, rather than master's, students or b) would not typically be associated with completion of a master's degree in the same area of study.**

   The school may present accompanying narrative to provide context and information that aids reviewers' understanding of the ways in which doctoral study is distinguished from master's-level study. This narrative is especially important for institutions that do not formally distinguish master's-level courses from doctoral-level courses.

   The school will present a separate list for each degree program and concentration as appropriate.

   Tables D5-D8 provide the curriculum for the four PhD programs in the college (Biostatistics, Environmental Health Sciences, Epidemiology, Health Behavior Health Promotion.

Table D5: PhD Biostatistics Academic Degrees Curriculum (74 units)

Required Courses (35 units)

MATH 564	Theory of Probability (3)
MATH 566	Theory of Statistics (3)
EPID 573A	Basic Principles of Epidemiology (3)
BIOS 576B	Biostatistics for Research (3)
BIOS 685	Special Topics in Biostatistics (3)
BIOS 687	Theory of Linear Models (3)
BIOS 688	Statistical Consulting (3)
STAT 571B	Design of Experiments (3)
STAT 675	Statistical Computing (3)
PHCL 595B	Scientific Writing, Presentation and Bioethics (2)
BIOS 696S	Biostatistics Seminar (1 unit; 2 times)
HPS 609	Evaluating Public Health Literature (1)
BIOS 585	Public Health Fundamentals for Researchers (3)

Elective Courses (12 units)

BIOS 576C	Applied Biostatistics Analysis (3)
BIOS 576D	Data Management and the SAS Programming Language (3)
BIOS 647	Analysis of Categorical Data (3)
BIOS 648	Analysis of High Dimensional Data (3)
BIOS 675	Clinical Trials & Intervention Studies (3)
EPID 677	Genetic Association Studies (3)
BIOS 686	Survival Analysis (3)

Electives may also be chosen from other Statistics or Mathematics courses with approval of the Biostatistics Faculty.

Note: BIOS 576A, Biostatistics in Public Health (3 units), is considered a prerequisite, which will have been met by most entering students.

Minor (**minimum 9 units**)

Each PhD student must complete a minimum of 9 credit hours of course work in a minor area. The minor area of study specifies the number of required minor units. This should consist of a coherent set of courses in an area (or in related areas) of application of biostatistics; the courses may be from more than one program. Minor courses should be primarily applied as opposed to mathematics/statistical in nature.

Dissertation- **minimum of 18 units required**

Table D6: PhD Environmental Health Sciences Academic Degrees Curriculum (72 units)

Required Major Courses: (27 units)

EPID 573A	Basic Principles of Epidemiology (3)
BIOS 576A	Biostatistics in Public Health (3)
BIOS 576B	Biostatistics for Research (3)
EHS 584	Fundamentals of Industrial and Environmental Health (3)
EHS 502	Environmental Monitoring & Analysis (3)
EHS 585	Public Health Fundamentals for Researchers (3)*****
EHS 653	Applied Exposure Assessment (3)
HPS 609	Evaluating Public Health Literature (1)
EHS 696R	Environmental Health Seminar (1 unit each semester – 5 times)

***** (or advisor approved substitution)

Elective Courses: Minimum of 18 elective units required for the PhD; (approved by faculty mentor). Students select courses in areas of emphasis: Exposure Science and Risk Assessment; Climate and Health; Environmental Contaminant Modeling; and Occupational Health and Safety.

Minor Courses = minimum of 9 units **

Environmental Health Sciences students must complete a minor of at least 9 units from another area of study. Minors that may interest students in this program include: Biostatistics, Epidemiology, Water Quality, Global Climate Change, Environmental Planning, Applied Mathematics, Engineering, Atmospheric Sciences, and Soil, Water and Environmental Science, just to name a few. With committee approval, a minor may be selected from any program of study at the University of Arizona that offers a doctoral degree.

******Requirements for a PhD minor in individual departments may vary. Required elective hours will be reduced if the minor exceeds 9 units.

Dissertation – minimum of 18 units required

Table D7. PhD Epidemiology Academic Degrees Curriculum (73 units)

Required Major Courses (**32 units**)

EPID 573A	Basic Principles of Epidemiology (3)
EPID 573B	Epidemiologic Methods (3)
EPID 573C	Advanced Epidemiology (3)
BIOS 576A	Biostatistics in Public Health (3)
BIOS 576B	Biostatistics for Research (3)
EPID 585	Public Health Fundamentals for Researchers (3)
PHCL 595B	Scientific Writing, Presentation and Bioethics (2)
HPS 609	Evaluating the Public Health Literature (1unit, fall semester of first year)
EPID 660	Infectious Disease Epidemiology (3)
EPID 670	Chronic Disease Epidemiology (3)
EPID 696A	Epidemiology Seminar (1 unit – 3 times) (or **equivalent** approved by Faculty Advisor)
EPID 796A	Epidemiology Doctoral Seminar (1 unit – 2 times)

Electives (**14 or more units required**; **9 of which must be in Epidemiology/Biostatistics, with at least (3) BIOS units in a Biostatistics course beyond BIOS 576B**).
Note: maximum of 10 units of Independent Study/Research Credit (EPID 599, 699, 799, 900).

Minor Courses - According to Graduate College Policy, PhD students must choose at least one supporting minor subject, in addition to the major subject. The selection of a minor subject area is the responsibility of the student, in consultation with their faculty advisor and/or Graduate Committee Chair. The minor area of study specifies the number of required minor units and examinations (**minimum required= 9 units**).

Dissertation – **EPID 920** - **minimum of 18 units**

Table D8. PhD Health Behavior Health Promotion Academic Degrees Curriculum

Required Major Courses (**18 units**)

BIOS 576B	Biostatistics for Research (3)
HPS 585	Public Health Fundamentals for Researchers (3) +
HPS 607	Qualitative Research Methods in Public Health (3)
HPS 609	Evaluating the Public Health Literature (1)
HPS 620A	Advanced Research Methods in Health Promotion I (3) ***§***
HPS 620B	Advanced Research Methods in Health Promotion II (3) ***§***
HPS 696L	Health Behavior Health Promotion Seminar (1 unit; 2 times) ***§***

US Minority/Health Disparities Course (3 units each)

HPS 535	Multicultural Health Beliefs or
HPS 605	Community-based Participatory Action Research to Decrease Health Disparities

+ For students who have met the core competencies in HPS 585 through prior courses, for example, as would be expected in a prior degree, minor or certificate in public health, an elective may be taken in lieu of this course.

§ Permanent courses addressing this content as assessed by the Program Director are acceptable substitutions.

Health Promotion Emphasis Electives (3 units) ***

HPS 531	Contemporary Health Issues & Research (3)
HPS 532A	Applied Aspects of Program Planning, Implementation & Evaluation I (4)
HPS 535	Multicultural Health Beliefs (3) **
HPS 577	Sociocultural & Behavioral Aspects of Public Health (3)
HPS 605	Community-based Participatory Action Research to Decrease Health Disparities (3) **
HPS 622	Applied Research Methods in Diet and Physical Activity (3)
HPS 642	Public Health Communications (3)
EPID 671	Social Epidemiology (3)
EPID 646	Measurement Issues in Epidemiology (3)

****** (if not already used to fulfill the US minority health/disparities requirement)
***Another health promotion related graduate course may be substituted with approval of the student's Faculty Advisor

Other Electives (**minimum 12 units; Approved by Faculty Advisor/Doctoral Committee**)
These electives will often be independent studies with a research focus, public health graduate courses, or other graduate theory, content or methodology-related courses at the University, relevant to the doctoral area of study).

2) Provide a matrix, in the format of Template D18-1, that indicates the required assessment opportunities for each of the defined foundational public health learning objectives (1-12). Typically, the school will present a separate matrix for each degree program, but matrices may be combined if requirements are identical.

Students in all four PhD programs take EHS 585 Public Health Fundamentals for Researchers. This is a 3-unit graduate level course and covers the 12 foundational public health learning objectives.

3) Provide a matrix, in the format of Template D18-2, that lists competencies for each relevant degree and concentration. The matrix indicates at least one assessment activity for each of the listed competencies. Typically, the school will present a separate matrix for each concentration. Note: these competencies are defined by the school and are distinct from the introductory public health learning objectives defined in this criterion.

Template D18-2.1 Assessment of Competencies for PhD Biostatistics		
Competency	**Course numbers**	**Describe specific assessment opportunity**
1. Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question.	BIOS 576B Biostatistics for Research BIOS 688 Statistical Consulting	BIOS 576B Midterm and final exams assess students on their use of inferential methods for modeling strategies, testing hypotheses using multivariate analyses. BIOS 688 Students are assessed on how they present descriptive analyses in projects. BIOS 920 Dissertations need to demonstrate how they have used descriptive and inferential methods.
2. Communicate understanding of the assumptions necessary for a given statistical procedure as well as the ability to determine if the assumptions are met for a given study design or data set.	BIOS 576B Biostatistics for Research BIOS 688 Statistical Consulting	BIOS 576B Students homework is assessed for how well they communicate the underlying assumptions when conducting higher level statistical procedures such as goodness of fit tests, the need for proportional hazards models, regression models. BIOS 688 Students' weekly oral and written summaries are assessed on how they explain their approaches to project investigators regarding their statistical analyses. BIOS 920 Students oral defense is assessed on the theory and assumptions they have used for their dissertation projects.
3. Demonstrate the ability to identify, articulate and implement sound study design, methodological and computational strategies for addressing scientific questions.	STAT 675 Statistical Computing	STAT 675 Student homework assignments are assessed for how well they are able to identify and articulate the use of various computational methods including random number generation, various Monte Carlo approaches, linear and non-linear modeling and the use of non-parametric and high dimensional regression. BIOS 920 Students are assessed on how well they have used sound study designs and methods for addressing a scientific question.

Template D18-2.1 Assessment of Competencies for PhD Biostatistics		
Competency	**Course numbers**	**Describe specific assessment opportunity**
4. Demonstrate the ability to communicate effectively in writing reports, giving oral presentations, and teaching basic statistical material in a formal classroom or seminar setting.	HPS 609 Evaluating the Public Health Literature STAT 675 Statistical Computing BIOS 688 Statistical Consulting	HPS 609 Student are assessed for how well they provide written and oral reviews of the literature. These assignments follow a series of lectures on how to conduct a literature review. STAT 675 Student reports are evaluated on homework assignments. They need to communicate with the faculty member how they are addressing statistical computing issues. BIOS 688 Students are assessed with how well they communicate with investigators in oral and written summaries. Student projects reports are also evaluated on how well they communicate formal statistical material.
5. Demonstrate the use of statistical theory necessary for the development and study of new statistical methods or to adapt existing methods to new or unique problems.	BIOS 687 Theory of Linear Models MATH 564 Theory of Probability MATH 566 Theory of Statistics	BIOS 687 Students are assessed on the statistical theory associated with all the homework assignments on topics including linear models, projections, least square problems, estimability, Gauss Markov theorem, and inference. MATH 564 Students are assessed on homework and with their final exam on the theories related to probability, generating various functions, independence and conditional distributions, sampling, convergence concepts and the central limits theorem. MATH 566 Students are assessed using homework and with exams.

Template D18-2.2 Assessment of Competencies for PhD Environmental Health Sciences		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. To exhibit a comprehensive knowledge of the principles of environmental health sciences.	EHS 653 Applied Exposure Assessment	Students' semester long projects (includes 4 presentations (site visit #1, site visit #2, literature review, final), proposal, final report) are evaluated to determine the comprehensive knowledge of environmental health exposures.
2. To develop new, innovative, applied or theoretical knowledge through research of environmental health-related issues.	EHS 584 Fundamentals of Industrial and Environmental Health	Students' "Get to Know Worker Paper" is assessed on how they apply theoretical knowledge when they design and pitch a safety intervention to workers and management.
	EHS 653 Applied Exposure Assessment	Students' final report is assessed on how they apply theory and an innovation for addressing an environmental health-related issue including 4 presentations (site visit #1, site visit #2, literature review, final), and their proposal.
3. To develop expertise in an environmental health science subspecialty.	EHS 518 Introduction to Human Health Risk Assessment	Students are assessed on their final project and presentation that involve a full risk assessment paradigm application (hazard identification, exposure assessment, dose response, and risk characterization).
	EHS 653 Applied Exposure Assessment	Homework on the following topics are assessed to determine a student's knowledge on specific environmental health topics: Equipment Inventory Walkthrough Checklist Regulatory Audit Checklist Data Analysis Assignment Statistics Assignment Exposure Modeling Assignment
	EHS 502 Environmental Monitoring and Analysis	In-class laboratory exercises are assessed in weeks 1-15 that includes subspecialties of air, water, soil, fomites, biologics and chemical hazards.
4. To comprehensively review and evaluate the environmental health scientific data, and gather and/or analyze preliminary data to develop testable hypotheses, study design(s) and research assessment protocol(s).	EHS 653 Applied Exposure Assessment	A student's literature review is assessed that is part of their semester long project of environmental health safety data. Students also conduct exposure calculations & hazard rankings.

Template D18-2.2 Assessment of Competencies for PhD Environmental Health Sciences		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
5. To select and utilize appropriate tools of Environmental Health Sciences (may include exposure science, risk assessment modeling, risk management, risk communication and others depending on the project).	EHS 584 Fundamentals of Industrial and Environmental Health	Week 14 – The ME in EnvironMEntal Health paper that students write are assessed on an indirect exposure assessment using dietary and activity log.
	EHS 502 Environmental Monitoring and Analysis	Weekly Pre and Post lab assignments assess how student select and utilize appropriate assessment methods for environmental exposures and risks.
	EHS 518 Introduction to Human Health Risk Assessment	Students' homework exercises are assessed on how develop and utilize dose response curves to predict health outcomes. Homework exercise requires students to search the literature for information on chemical exposure potentials and exposure assessment data to characterize chemical intake risks. Homework exercise provides hands on practice for students to program and apply Monte Carlo simulation software to characterize exposure, risk and management impacts. Examples include: a dose response curve, chemical intake calculations and the Monte Carlo Simulation.

Template D18-2.3 Assessment of Competencies for PhD Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Prepare scientific research or program proposals that articulate specific aims, summarize appropriate background literature, describe study methodology and identify significance and limitations of the approach.	EPI573A Basic Principles of Epidemiology EPID 670 Chronic Disease Epidemiology	EPID 573A: Problem Set (PS) 6, questions 6.16 – 6.19 describe the advantages and disadvantages of each of the listed study designs. EPID 670 Project 4: Research Proposal and Presentation - Students write an NIH-style Specific Aims page and create a 15-minute presentation on a research proposal for a chronic disease epidemiology study. Students must include a critique of the current literature on their topic and discuss strengths and limitations of their proposed study. All doctoral students must write a dissertation proposal in the standard format for an NIH proposal with specific aims page and research strategy. This is a requirement before proceeding to the written and oral comprehensive exams. The doctoral committee consisting of at least 3 primary epidemiology faculty must approve the proposal prior to continuing.
2. Develop research questions to address health problems by appraising and identifying gaps in the current scientific literature.	EPID 573C Advanced Epidemiology EPID 660 Infectious Disease Epidemiology EPID 670 Chronic Disease Epidemiology	EPID 573C Course Project: In the course project, students will do a literature search and review on a selected public health topic for appraising and identifying gaps in the current scientific literature. Based on their literature review, students will develop research questions and to use data from the Women's Health Initiative to address the research questions. EPID 660 Final review paper – students conduct a rapid systematic review on a topic of their choosing and describe the overall strength of a relationship. One of the required sections is to identify the next steps for research. EPID 670 Project 4: Research Proposal and Presentation - Students write an NIH-style Specific Aims page and create a 15-minute presentation on a research proposal for a chronic disease epidemiology study. Students must include a research question and associated hypotheses to address a gap in the literature and the significance of the research.

Template D18-2.3 Assessment of Competencies for PhD Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
		The dissertation proposal includes the scientific premise for the proposed work. This includes a review of the literature to contextualize and provide evidence to support the need for the proposed research.
3. Design appropriate studies using causal inference principles for testing hypotheses in specific populations, after evaluating specific design advantages and limitations.	EPI573a Basic Principles of Epidemiology	EPID 573A: Epi Paper Critique Project – discuss advantages and limitations of the design used in a published study and alternative approaches.
	EPID 573B Epidemiologic Methods	EPID 573B Assessment is via Assignments1-7 by outlining the components of case-control studies, describing findings from cohort studies and describing biases within study designs; then applying these concepts to design a study and help other students identify potential issues within their study designs. These concepts are then applied to examples on quizzes 1 & 2, the midterm and final.
	EPID 573C Advanced Epidemiology	EPID 573C Course Project: In the course project, students will select an appropriate study design using causal inference principles for testing hypotheses in specific populations, after evaluating specific design advantages and limitations.
	EPID 670 Chronic Disease Epidemiology	EPID 670 Project 4: Research Proposal and Presentation - Students write an NIH-style Specific Aims page and create a 15-minute presentation on a research proposal for a chronic disease epidemiology study. Students must critique the current literature on their topic and discuss strengths and limitations of their proposed study. The proposed study must include hypotheses appropriate for specific populations. As part of the dissertation proposal students must outline the methods that will be used for their research. While some individuals may end up changing the details of their proposed work once they have advanced to candidacy all PhD students will need to carry out original research. This could include the design and execution of primary data collection but could also include the design and execution of secondary data analyses. Both would include study design elements.

Template D18-2.3 Assessment of Competencies for PhD Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
4. Evaluate the integrity, comparability, and limitations of data to make inferences related to analyses and results.	EPI573a Basic Principles of Epidemiology EPID 573B Epidemiologic Methods	EPID 573A: Epi Paper Critique Project – describe the potential biases that may affect a published study and how this may affect the interpretation of results. EPID 573B Assessment is via Assignment 6 to describing biases within study designs by comparing the advantages of biases avoided by some designs, then apply to designing study. They then evaluate the limitation of data and making inferences within the analyses of confounding and effect modification by considering how their assigned main exposure is related to other factors measured. Students are required to conduct their own original research which includes an analysis of primary or secondary data. Strengths and limitations of the dataset are included in the dissertation as well as subsequent manuscripts.
5. Lead group interactions competently, ethically, respectfully and professionally to diverse audiences.	EPID 573C Advanced Epidemiology EPID 660 Infectious Disease Epidemiology	EPID 573C Course Project: In the course project, students will select an appropriate study design and data analysis plan for testing hypotheses in specific populations, after evaluating the integrity, comparability and limitations of the data in making references related to analyses and results. Midterm: Students will read a published epidemiological research paper and evaluate the integrity, comparability and limitations of the data to make inferences related to analyses and results. EPID 660 Weekly discussions and discussion leader reflections: Students will lead discussion groups twice during the semester. All students in the class will post questions in response to the readings assigned; one applied reading (typically an outbreak investigation) and one research study reading. Student leaders aggregate these questions and must discuss at least two of the STROBE criteria during their weekly discussion groups. They then write a short reflection summarizing the discussion with their peers.

Template D18-2.3 Assessment of Competencies for PhD Epidemiology		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
6. Organize and deliver clear presentations of research findings in varying professional formats to diverse audiences.	EPID 573C Advanced Epidemiology EPID 660 Infectious Disease Epidemiology EPID 670 Chronic Disease Epidemiology	EPID 573C Course Project: In the course project, students will write an abstract, give an oral presentation in class and write a final paper to interpret the epidemiological analyses. They will organize and deliver the presentations in different professional formats to diverse audiences. EPID 660 Final presentation: In the last two class sessions students present the findings of their rapid review which summarizes the evidence in the epidemiological literature. EPID 670 Project 1: Presentation on Classical Chronic Disease Studies- Students will prepare a 10-minute presentation describing an epidemiologic study of chronic disease and summarizing key epidemiologic findings from this study. Project 4: Research Proposal and Presentation - Students write an NIH-style Specific Aims page and create a 15-minute presentation on a research proposal for a chronic disease epidemiology study. All students are required to prepare and present their dissertation work for an audience that includes both academics and members of the public. This is a one-hour seminar that is guided by the committee chair to be accessible to individuals from multiple backgrounds.

Template 18-2.4 Assessment of Competencies for PhD in Health Behavior Health Promotion		
Competency	**Course number(s) and name(s)**	**Describe specific assessment opportunity**
1. Articulate the importance of using multiple methodologies (that include qualitative and quantitative examples) in the study of a health behavior health promotion.	HPS 620A Advanced Research Methods in Health Promotion I HPS 620B Advanced Research Methods in Health Promotion I	HPS 620A: Students are assessed on how they articulate the importance of integrated mixed methods papers and participate orally in efforts to conducted integrated mixed methods studies on various Health Behavior Health Promotion topics. HPS 620B: Students study designs and methods for a Health Behavior and Health Promotion project is evaluated by their peers and faculty and provided written feedback.
2. To express appropriate quantitative methods for the analyses of multiple causal factors contributing to a health behavior health promotion outcome.	HPS 620B Advanced Research Methods in Public Health II	In the final grant proposal, a quantitative aim and plans to execute it are evaluated and must describe and consider multiple predictors/explanatory factors and potential confounds related to health behavior health promotion outcomes. Also assessed in the oral comprehensive exam.
3. Identify active methods to engage stakeholders (e.g., within an under-served community or patients with a condition) to improve the development and/or delivery of health behavior health promotion programs.	HPS 607 Qualitative Research Methods in Public Health HPS 620B Advanced Research Methods in Public Health II	HPS 607: Students are assessed on how they use qualitative methods to engage community members in field settings throughout the course and during their final, team-based, program project and report. HPS 620B: Students are assessed on the feasibility of their Health Behavior Health Promotion research proposal, which includes engagement with partner agencies and stakeholders.
4. To utilize complex theories of health behavior health promotion that express multiple levels of causal factors or mechanisms for health promotion intervention.	HPS 620A Advanced Research Methods in Health Promotion I	A student's conceptual model is assessed on how it articulates multiple levels of causal factors on the student's specific health behavior intervention topic.
5. Apply theories, frameworks, methods or paradigms to conduct health behavior health promotion research.	HPS 620A Advanced Research Methods in Health Promotion I HPS 620B Advanced Research Methods in Health Promotion II;	HPS 620A: A student's final course product is assessed on how well it applies Health Behavior Health Promotion theories and frameworks in the Specific Aims and Significance sections of a grant proposal. HPS 620B: A student's final grant proposal is assessed on how uses HBHP foundations to plan a complete and executable research project. A dissertation is required of 2-3 completed research projects using HBHP foundational theory and methods.

4) Identify required coursework and other experiences that address the variety of public health research methods employed in the context of a population health framework to foster discovery and translation of public health knowledge and a brief narrative that explains how the instruction and assessment is equivalent to that typically associated with a three-semester-credit course.

All students are required to take EHS 585 Public Health Fundamentals for Researchers which is a 3-unit course. Additionally, all students take BIOS 576A Biostatistics in Public Health which is another 3-unit course. Health Behavior Health Promotion students also take the 3-unit course HPS 607 Qualitative Research Methods in Public Health. All have to do research dissertation.

5) Briefly summarize policies and procedures relating to production and assessment of the final research project or paper.

All students in an academic master's degree program are required to complete a doctoral level dissertation. Although the policies and procedures related to the dissertations are similar for each program, an explanation for the nuances between is provided below.

Biostatistics

The PhD dissertation should involve original research in biostatistics methodology and should represent a substantial contribution to the field of biostatistics. If the research involves human subjects, even if it involves secondary data analysis, the student must have IRB approval before starting on this work. It is the responsibility of the student in consultation with the Dissertation Research Director to obtain the approvals. See the "Human Subjects Protection Program" section above for more details of the approval process.

The Biostatistics program faculty currently approves two dissertation formats: a standard dissertation or a three-paper format. The Dissertation Committee must approve the format of the dissertation prior to the student beginning the work. Actual preparation of the written dissertation follows the Graduate College guidelines.

It is recommended that the student work with the Dissertation Committee to determine a communication plan and timetable for reviewing dissertation work. When the student and Dissertation Research Director consider the dissertation sufficiently complete, the student submits a complete copy of the penultimate draft to each Dissertation Committee member and negotiates a date for the oral defense with the Dissertation Committee members. This document should be submitted to the dissertation committee members at least one month prior to the agreed upon date of the final examination.

Environmental Health Sciences

The PhD dissertation should involve innovative original research and demonstrate a sophisticated command of environmental health sciences literature and skills. If the dissertation research involves human subjects, even if it involves secondary data analysis, the student must have IRB approval before starting on this work. It is the responsibility of the student, in consultation with the Dissertation Director, to obtain the approvals and conform to ethical research standards. See the "Human Subjects Approval Process for Dissertation/Thesis Projects" section above for more information on the Human Subjects approval process.

The Environmental Health Sciences program faculty currently approves two dissertation formats: a standard dissertation or a three-paper format. The student's Graduate Committee must approve the format of the dissertation prior to the initiation of work and this should be noted on the proposal abstract signed by the committee. Actual preparation of the written dissertation follows the Graduate College rules. See the 'Dissertation and Thesis Formatting Guides' on the Graduate College website.

It is recommended that the student work with the Dissertation Committee to determine a communication plan and timetable for reviewing dissertation work. When the student and Dissertation Director consider the dissertation sufficiently complete, the student submits a complete copy of the draft to each Dissertation Committee member and negotiates a date for the oral defense with the Dissertation Committee members. This document should be submitted to the Dissertation Committee members at least one month prior to the agreed upon date of the final examination.

Epidemiology

The PhD dissertation should involve innovative research and demonstrate a sophisticated command of epidemiologic skills. If the research involves human subjects, even if it involves secondary data analysis, the student must have IRB approval before starting on this work. It is the responsibility of the student, in consultation with the Dissertation Director, to obtain the approvals and conform to ethical research standards. See the "Human Subjects Approval for Dissertation/Thesis Projects" section above for more information about the Human Subjects approval process.

The Epidemiology program faculty currently approves two dissertation formats: a standard dissertation or a three-paper format. The Graduate Committee must approve the format of the dissertation prior to the student beginning the work. Actual preparation of the written dissertation follows the Graduate College guidelines.

While the Dissertation Director will work closely with the student, the committee should also consider reviewing drafts of the dissertation as it moves forward to avoid problems at the oral defense. It is recommended that the student work with the Dissertation Committee to determine a communication plan and timetable for reviewing dissertation work. Students should expect to give each dissertation committee member at least 2 weeks to read each draft. When the student and Dissertation Director consider the dissertation complete, the student submits a copy of the penultimate draft to each Dissertation Committee member and negotiates a date for the oral defense with the Dissertation Committee members. This document should be submitted to the dissertation committee members at least one month prior to the agreed upon date of the final examination.

Health Behavior Health Promotion

The PhD dissertation should involve innovative, high impact research and demonstrate a sophisticated command of skills and knowledge relevant to Health Behavior Health Promotion. If the research involves human subjects, even if it involves secondary data analysis, the student must have IRB approval before starting this work. It is the responsibility of the student, in consultation with the Graduate Committee Chair and the COPH Research Advisory Committee, to obtain the approvals and conform to ethical research standards. See the "Human Subjects Approval for Dissertation/Thesis Projects" section above for more information about the Human Subjects approval process.

The HBHP program faculty currently supports the three peer-reviewed manuscript dissertation format. The Graduate Committee must approve the format of the dissertation prior to the student beginning the work. Students should follow dissertation formatting guidelines by the Graduate College.

While the Graduate Committee Chair will work closely with the student, the committee should be approving the dissertation as it moves forward to avoid problems at the oral defense. Based on prior deliberations of the dissertation research proposal and consideration of the consistency of the committee membership across the stages of the dissertation research development, the chair may request a committee meeting to further refine the expected components of the dissertation early in the student's candidacy. It is expected that each dissertation committee member will review and approve multiple drafts of the dissertation after the Chair or Dissertation Research Director has worked with the student. It is recommended that the student work with the Dissertation Committee members to determine a communication plan and timetable for reviewing dissertation work. Students should expect to give each dissertation committee member at least 2 weeks to read each draft. When the student and Chair consider the dissertation complete, the student submits a copy of the penultimate draft to each committee member and negotiates a date for the oral defense with the Dissertation Committee members. This document should be submitted to the dissertation committee members at least one month prior to the agreed upon date of the final examination.

Consistent Policies and Outcomes For all PhD Programs

No later than 15 working days before the proposed dissertation defense date, the student (with approval from the Graduate Committee Chair) must work with the Doctoral/MS Programs Coordinator to 1) reserve a MEZCOPH classroom for the tentatively scheduled examination, and 2) publicize the public forum presentation portion of the examination. The exact time, date, and place of this examination must also be scheduled with the Graduate College. The Graduate College notification occurs when the student submits the Doctoral Announcement of Final Oral Defense form. This form is found on the UAccess Student Center under the GradPath option. Each semester has official Graduate College

deadlines related to the dissertation defense and eligibility for that same semester graduation. Visit the Graduate College website for specific semester deadlines.

Formal oral defense of the dissertation research constitutes the final examination. This consists of a public seminar by the candidate of no more than 50 minutes plus 10 minutes for questions from the general audience, followed by a closed oral examination by the candidate's Dissertation Committee. The entire exam must be completed within three hours. It is expected that the student will meet with the Graduate Committee Chair and possibly other committee members to discuss the content of the public seminar and review the power-point presentation at least 14 days prior to the scheduled presentation. The student must take the final draft of the dissertation and three printed Approval Pages to the final defense for the Dissertation Committee members to sign.

The student needs to assure that all Dissertation Committee members can attend the final examination. The student also must inform the HBHP Program Director and the Associate Dean for Academic Affairs. Members of the Graduate Committee from the minor department have the option to attend or not. The Graduate Committee Chair presides over the examination. The initial seminar portion is open to the public; the remaining examination portion is closed to the public.
Possible Outcomes:

The Dissertation Committee determines the Final Oral Dissertation Defense outcome as:

- Pass, no revisions of the dissertation required. This option is rarely awarded.
- Pass, with revisions that must be approved by the Graduate Committee Chair. This option is used most often in the experience of the faculty.
- Pass, with revisions that must be approved by all Dissertation Committee members.
- Fail. The Dissertation Committee then decides if a request for re-examination will be submitted to the Graduate College. The Graduate College Dean approves/disapproves the request.

The Graduate Committee Chair submits the defense results to the Graduate College.
When revisions are required, the student is responsible for meeting with the Graduate Committee Chair to work out a timeline for completion and review of the revisions.

6) Provide links to handbooks or webpages that contain the full list of policies and procedures governing production and assessment of the final research project or paper for each degree school.

SEE **ERF D17.1** for the policies and procedures for each academic public health PhD program.

7) Include completed, graded samples of deliverables associated with the advanced research project. The school must provide at least 10% of the number produced in the last three years or five examples, whichever is greater.

See **ERF D18** for five PhD dissertations. These dissertations are from Biostatistics, Environmental Health Sciences, Epidemiology and Health Behavior Health Promotion students.

8) Briefly explain how the school ensures that the instruction and assessment in introductory public health knowledge is generally equivalent to the instruction and assessment typically associated with a three semester-credit course.

All students in an academic doctoral degree program are required to take the 3-unit course EHS 585 Public Health Fundamentals for Researchers. This course addresses and assesses students on the 12 identified areas regarding basic public health knowledge. The syllabus for this course is in **ERF D17.3.2.**

9) Include the most recent syllabus for any course listed in the documentation requests above, or written guidelines for any required elements that do not have a syllabus.

See **ERF D18.1** for the syllabus and assessment tools for the academic public health doctoral degrees that include EHS 585 Public Health Fundamentals for Researchers (**ERF D17.3.2**).

D19. ALL REMAINING DEGREES

D19. All Remaining Degrees

Not Applicable.

D20. DISTANCE EDUCATION

D20. Distance Education

The university provides needed support for the school, including administrative, communication, information technology and student services.

There is an ongoing effort to evaluate the academic effectiveness of the format, to assess learning methods and to systematically use this information to stimulate school improvements. Evaluation of student outcomes and of the learning model are especially important in institutions that offer distance learning but do not offer a comparable in-residence school.

1) Identify all public health distance education degree programs and/or concentrations that offer a curriculum or course of study that can be obtained via distance education. Template Intro-1 may be referenced for this purpose.

Online Master of Public Health (MPH) with the following concentrations:
Applied Epidemiology
Health Promotion
Health Services Administration

Bachelor of Science with a major in Public Health with the following emphasis options:
Public Health Practice
Health Systems in Theory and Practice
Global Health

2) Describe the public health distance education programs, including

a) an explanation of the model or methods used

The online MPH employs a carousel model built using UA's MPH curriculum that allows students to enter program at the start of each semester. The first carousel consists of 6 required courses; the second carousel consists of require concentration courses, the applied practice experience and in integrated public heath course. The MPH degree requirements with specializations total 42 credit units. The model assumes program design that supports a working professional audience while preserving UA's high academic standards. The semester structure includes the following:

- Students take two courses consecutively during a 15-week semester; each course is 7.5 weeks and identified as a Term A and Term B course.
- A dedicated Internship Workshop between core and specialization concentration carousel of courses.
- Students are able to take their integrated public health course their last fall or spring semester in the program.
- They conduct their internship (applied practice experience during their last 15-week semester.
- Students in our online program also are able to work closely with individual faculty members. Two examples are the following: (1) one of our online MPH faculty Dr. Abdul Saljuqi was approached by a student (who also works as Clinical Research Manager in the Department of Surgery, College of Medicine in Tucson) to become her internship Preceptor for the academic year of 2019-2020. The student attended Dr. Saljuqi's class this Summer, but in a different section. Based on their agreement, the student works with Fall Prevention Institute research activities. The focus of the student internship research will be assessing the discharge disposition for fall patients from Banner UMC – Tucson and to find out how patients are directed to available fall prevention programs (e.g. A Matter of Balance). The final aim of the study is to propose a policy in which the healthcare providers are required to have a clear and specific guideline for fall victims to attend CDC approved fall prevention programs after discharge and to prevent secondary falls and readmissions. (2) Another MPH student reached out to Dr. Gonzalez to work with him and the Primary Prevention Mobile Unit to become a volunteer. This student participated with us in some of our mobile unit events, providing basic health screenings, and health education to the community in areas as Guadalupe, Mesa and Downtown Phoenix. She was very interested to learn how to work with the community; at the end, she was very enthusiastic about community health and the mobile unit approach.

The online BS is identical in degree requirements to the main campus/in-person degree, with the exception of offering three emphasis options compared with five emphasis options for on campus students. The education model assumes program design that supports a distance-based audience while preserving UA's high academic standards. Support for curriculum design is provided by the University's Arizona Online and Office of Digital Learning teams. The online program also reviews and supports the following course work:

- Pre-requisite courses that transfer students have already completed are assessed for equivalency to pre-major coursework. In those cases where students have completed public health-focused coursework elsewhere, this coursework is also assessed by Public Health faculty for equivalency to specific coursework in the major.
- The only course not available at the UA to fully online students is chemistry (note: this is a course 'owned' by the Chemistry department, outside of the College of Public Health). Students are advised to take this course at a community college or institution located close to them.
- Most of the courses are offered in 7.5-week format, which has been found to be preferred by online adult learners.

b) the school's rationale for offering these programs

With continued advances in technology and the increasing aging population, the online programs serve to fulfill the need for a competent public health workforce capable of supporting the ever-changing health needs of diverse populations, domestically and abroad. Further, offering the MPH and BS via the online classroom increases access to quality accredited public health education. Arizona also has a strong community college system and two tribal community colleges. The online program allows students and avenue to continue their education to obtain the bachelor degree in public health.

The College's online degree programs have served in retaining students, who would otherwise not be able to pursue our degrees, thus increasing the likelihood of fulfilling their educational and professional goals and ensuring a competent public health workforce. For example, of the original cohort of graduating online undergraduate students, all five students had begun the degree on main campus, and for a variety of reasons, they changed campuses. The ease of being able to do so has directly contributed to greater retention and graduation rates within the College.

c) the manner in which it provides necessary administrative, information technology and student support services

The college has a director for the online MPH program and a student support advisor. They work directly with the Associate Dean for Academic Affairs and the Assistant Dean for Student Services to oversee the implementation of the program. The online MPH receives also receives administrative support from a third-party provider (Pearson) in the following areas: recruitment/marketing, course development, and student support services. Our partnership with Pearson also provides the following support staff: Student Success Coach, Instructional Designers, and Student Retention Manager.

The Online BS has one College of Public Health academic advisor dedicated to the fully online student body, from recruitment through admission and onto graduation. The academic advisor receives training and support from the Coordinator of Undergraduate Advising and participates in ongoing professional development trainings by the University Advising Resource Center and the University's UAONLINE Office that is led by a Senior Vice Provost and Vice President Academic Initiatives and Student Success. The administrative support from this office and the Office of Digital Learning includes recruitment/marketing and course design.

d) the manner in which it monitors the academic rigor of the programs and their equivalence (or comparability) to other degree programs offered by the university, and

The College maintains academic rigor in the online programs by offering courses developed by the College's full-time faculty members and employing a number of plagiarism prevention tools (i.e.

Turnitin, Examity, etc.) to maintain academic integrity. Competencies addressed are the same as the on-campus courses, reviews are done, and student progress is also monitored,

e) the manner in which it evaluates the educational outcomes, as well as the format and methods.

The MPH program assesses educational outcomes three times during matriculation:

Annual Progress Report, Exit Survey, and the Teacher-Course Evaluation system. The BS program students also participate in Exit Surveys and Teacher-Course Evaluation systems.

- MPH students are required to complete an Annual Progress Report as a component of the Mandatory MPH Internship Workshop. The Annual Progress Report describes their progress and accomplishments for the previous academic year.
- At the end of matriculation, graduate students complete an exit survey that measures their confidence in the attained MPH Learning Outcomes, CEPH Competencies, and MPH concentration competencies. The exit survey for undergraduate students measures the students' confidence in the attained Learning outcomes and CEPH domains, competencies, and cross-cutting concepts.
- The Teacher-Course Evaluation system (TCE) is the University of Arizona's centrally-supported service for collecting end of term feedback from students about UA courses and faculty. The UA TCE aims to:
  - **provide students** with a venue to voice their views about UA courses for the benefit of the UA community and as a source of information students can consider when selecting courses.
  - **provide faculty and their departments** with a consistent source of valid and reliable student feedback for use in faculty performance appraisal processes such as Annual Review and Promotion and Tenure Reviews.
  - **offer UA faculty and teaching assistants** optional detailed feedback information for teaching skills and course development
  - **offer academic departments and the UA administration** ongoing data regarding student satisfaction and the student experience in UA courses for planning and decision support as well as evidence in a variety of accreditation and other accountability processes.

3) Describe the processes that the university uses to verify that the student who registers in a distance education course (as part of a distance-based degree) or a fully distance-based degree is the same student who participates in and completes the course or degree and receives the academic credit.

The University Information Technology Services (UITS) recent incorporation of Duo authentication for the Student Information System and for D2L serves as enhanced authentication for persons logging into university systems. Additionally, the use of plagiarism prevention EdTech tools (i.e. Examity) help ensure the person on the other end is who they say they are.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

E1. FACULTY ALIGNMENT WITH DEGREES OFFERED

E1. Faculty Alignment with Degrees Offered

Faculty teach and supervise students in areas of knowledge with which they are thoroughly familiar and qualified by the totality of their education and experience.

Faculty education and experience is appropriate for the degree level (bachelor's, master's, doctoral) and the nature of the degree (research, professional practice, etc.) with which they are associated.

1) **Provide a table showing the school's primary instructional faculty in the format of Template E1-1. The template presents data effective at the beginning of the academic year in which the final self-study is submitted to CEPH and must be updated at the beginning of the site visit if any changes have occurred since final self-study submission. The identification of instructional areas must correspond to the data presented in Template C2-1.**

Template E1-1. Primary Instructional Faculty						
Primary Instructional Faculty Alignment with Degrees Offered						
Name*	Title/ Academic Rank	Tenure Status or Classification^	Graduate Degrees Earned	Institution(s) from which degree(s) were earned	Discipline in which degrees were earned	Concentration/ affiliated with in Template C2-1
Alaofe, Halimatou S	Assistant Professor	tenure-eligible	Ph.D.	Laval University	Nutritional Sciences	FCH-Global Health / FCH-MCH
Barraza, Leila Fs	Assistant Professor	tenure-eligible	J.D.	Arizona State University	Law	PHPM / HSA
Beamer, Paloma	Associate Professor	Tenure	Ph.D.	Stanford University	Civil and Environmental Engineering	EOH / EHS
Bedrick, Edward	Professor	tenure	Ph.D.	University of Minnesota	Statistics	Biostatistics
Bell, Melanie L	Professor	tenure	Ph.D.	University of Colorado	Biostatistics	Biostatistics
Bill Heimer, David D	Professor	tenure	Ph.D.	University of Washington	Statistics	Biostatistics
Brown, Heidi E	Assistant Professor	tenure-eligible	Ph.D.	Yale University	Epidemiology	EPI / BS
Burgess, Jefferey	Professor	Tenure	M.D.	University of Washington	Medicine	EOH-IH / EHS
Calhoun, Beth	Professor	Tenure	PhD	University of South Carolina	Health Administration	PHPM
Campos-Outcalt, Doug E	Senior Lecturer	career track	M.D.	University of Arizona	Medicine\Occupational Medicine	PHP / HSA / Clinical Leadership
Canales, Robert A	Assistant Professor	tenure-eligible	Ph.D.	Stanford University	Environmental Engineering and Science	EOH / EOH-IH / EHS
Carroll, Stephanie	Assistant Professor	tenure-eligible	Dr.PH.	University of Arizona	Maternal/Child Health	PHPM

Template E1-1. Primary Instructional Faculty						
Primary Instructional Faculty Alignment with Degrees Offered						
Name*	Title/ Academic Rank	Tenure Status or Classification^	Graduate Degrees Earned	Institution(s) from which degree(s) were earned	Discipline in which degrees were earned	Concentration[f] affiliated with in Template C2-1
Carter, Heather	Assistant Professor	career track	Ed.D.	Northern Arizona University	Educational Leadership	PHP / HSA
Carvajal, Scott C	Professor	Tenure	Ph.D.	University of Houston	Social Psychology	Health Behavior Health Promotion / Health Promotion
Chen, Zhao	Professor	Tenure	Ph.D.	University of Arizona	Physical Anthropology	EPI / Applied EPI / BS
Dennis, Leslie K	Professor	Tenure	Ph.D.	University of Washington	Epidemiology	EPI / Applied EPI
Derksen, Daniel J	Professor	Tenure	M.D.	University of Arizona	Medicine	PHPM
Ehiri, John E	Professor	Tenure	Ph.D.	University of Glasgow	Public Health	FCH-Global Health / FCH-MCH
Ellingson, Katherine	Assistant Professor	career track	Ph.D.	Yale University	Epidemiology and Public Health	EPI / One Health
Ernst, Kacey C	Associate Professor	Tenure	Ph.D.	University of Michigan, Ann Arbor	Epidemiology	EPI / One Health
Farland, Leslie	Assistant Professor	tenure-eligible	Sc.D.	Harvard University	Epidemiology	EPI / Applied EPI
Foote, Janet A	Assistant Professor	career track	Ph.D.	University of Arizona	Nutritional Sciences	PHP / Applied EPI
Garcia, David O	Assistant Professor	tenure-eligible	Ph.D.	University of Pittsburgh	Exercise Physiology	Health Behavior Health Promotion / Health Promotion
Gerald, Joe K	Associate Professor	Tenure	M.D.	University of Alabama, Birmingham	Health Services Administration	PHPM / BS
Gerald, Lynn B	Professor	Tenure	Ph.D.	University of Alabama, Birmingham	Medical Sociology	Health Behavior Health Promotion / FCH-MCH
Gonzalez Fagoaga, Jesus E	Assistant Professor	career track	Ph.D.	El Colegio de la Frontera Norte, Mexico	Social Sciences	PHP / HSA
Gronewold, Laura	Lecturer	Career track	Ph.D.	University of Arizona	English	BS
Hakim, Iman	Professor	Tenure	Ph.D.	Ain Shams University	Child Health and Nutrition	FCH-MCH / FCH-Global Health / Health Behavior Health Promotion

Template E1-1. Primary Instructional Faculty						
Primary Instructional Faculty Alignment with Degrees Offered						
Name*	Title/ Academic Rank	Tenure Status or Classification^	Graduate Degrees Earned	Institution(s) from which degree(s) were earned	Discipline in which degrees were earned	Concentration[f] affiliated with in Template C2-1
Harris, Robin B	Professor	Tenure	Ph.D.	University of Washington	Epidemiology	EPI / Applied EPI / One Health / BS
Hatcher, Jennifer	Professor	Tenure	Ph.D.	University of Kentucky	Nursing	PHP / Clinical Leadership
Haynes, Patricia L	Associate Professor	Tenure	Ph.D.	San Diego State University	Clinical Psychology	Health Behavior Health Promotion / Health Promotion
Hsu, Chiu-Hsieh	Professor	tenure	Ph.D.	University of Michigan, Ann Arbor	Biostatistics	Biostatistics
Hu, Chengcheng	Professor	tenure	Ph.D.	University of Washington	Biostatistics	Biostatistics
Jacobs, Elizabeth T	Professor	Tenure	Ph.D.	University of Arizona	Nutritional Sciences	EPI / Applied EPI
Kilungo, Aminata P	Assistant Professor	career track	Ph.D.	University of Arizona	Soil, Water and Environmental Sciences	EOH / FCH Global Health / One Health
Klimentidis, Yann C	Assistant Professor	tenure-eligible	Ph.D.	University of New Mexico	Anthropology	EPI / BS
Kohler, Lindsay Nicole	Assistant Professor	career track	Ph.D.	University of Arizona	Epidemiology	Health Behavior Health Promotion / FCH-MCH / BS
Koss, Mary P	Regents Professor	Tenure	Ph.D.	University of Minnesota	Clinical Psychology	FCH-MCH / Health Behavior Health Promotion
Madhivanan, Purnima	Associate Professor	Tenured	Ph.D.	University of California, Berkeley	Epidemiology	FCH-MCH / FCH -Global Health
Magrath, Priscilla Anne	Lecturer	career track	Ph.D.	University of Arizona	Anthropology	FCH-MCH / FCH-Global Health / BS
Marrero, David	Professor	Tenure	Ph.D.	University of California, Irvine	Social Ecology	Health Behavior Health Promotion
Martz, Mark	Assistant Professor	career track	Ph.D.	Arizona State University	Public Administration and Policy	Health Behavior Health Promotion
Moore-Monroy, Martha J	Lecturer	career track	M.A.	University of Arizona	Sociology	Health Behavior Health Promotion / Health Promotion / BS
Nuno, Velia Leybas	Assistant Professor	career track	Ph.D.	University of Arizona	Epidemiology	FCH-MCH / BS

Template E1-1. Primary Instructional Faculty						
Primary Instructional Faculty Alignment with Degrees Offered						
Name*	Title/ Academic Rank	Tenure Status or Classification^	Graduate Degrees Earned	Institution(s) from which degree(s) were earned	Discipline in which degrees were earned	Concentration$_f$ affiliated with in Template C2-1
Parker, Sheila Hill	Lecturer	career track	Dr.PH.	University of North Carolina	Public Health Nutrition	Health Behavior Health Promotion
Pettygrove, Sydney D	Assistant Professor	career track	Ph.D.	Johns Hopkins University	Epidemiology	EPI / Applied EPI
Pogreba Brown, Kristen M	Assistant Professor	tenure-eligible	Ph.D.	University of Arizona	Epidemiology	One Health / EPI
Reed, Rustin	Assistant Research Professor	Career track	PhD	University of Arizona	Environmental Health Sciences	EOH-IH
Reiss, Boris	Assistant Professor	tenure-eligible	Ph.D.	University of Washington	Environmental/Occupational Hygiene	EOH-IH / EHS
Reynolds, Kelly A	Professor	Tenure	Ph.D.	University of Arizona	Environmental Studies	EOH / EHS
Roe, Denise	Professor	tenure	Dr.PH.	University of California, Los Angeles	Biostatistics	Biostatistics
Rosales, Cecilia	Professor	Tenure	M.D.	Univ Automona de Cd Juarez	Medicine	HSA / Clinical Leadership
Sokan, Amanda	Assistant Professor	Career track	PhD		Gerontology	PHP / BS
Sun, Xiaoxiao	Assistant Professor	tenure-eligible	Ph.D.	University of Georgia	Statistics	Biostatistics
Taren, Douglas	Professor	Tenure	Ph.D.	Cornell University	International Nutrition	FCH-Global / FCH-MCH
Thomson, Cynthia A	Professor	Tenure	Ph.D.	University of Arizona	Nutritional Sciences	Health Behavior Health Promotion / BS
Verhougstraete, Marc	Assistant Professor	tenure-eligible	Ph.D.	Michigan State University	Water Science/Microbiology	EOH / EHS
Willis Jr, Spencer L	Lecturer	career track	Dr.PH.	Jackson State University	Behavioral Health Promotion and Education	Health Promotion / FCH-MCH/BS
Yuan, Nicole P	Associate Professor	Tenure	Ph.D.	Bowling Green University	Clinical Psychology	Health Behavior Health Promotion / Health Promotion
Zhou, Jin	Assistant Professor	tenure-eligible	Ph.D.	University of California, Los Angeles	Biomathematics	Biostatistics

Template E1-1. Primary Instructional Faculty						
Primary Instructional Faculty Alignment with Degrees Offered						
Name*	Title/ Academic Rank	Tenure Status or Classification^	Graduate Degrees Earned	Institution(s) from which degree(s) were earned	Discipline in which degrees were earned	Concentration$_f$ affiliated with in Template C2-1
* List faculty alphabetically. $_f$ EOH=Environmental and Occupational Health, EOH-IH= Industrial Hygiene, EHS=Environmental Health Sciences; FCH-MCH=Family and Child Health – Maternal and Child Health; FCH-Global Health=Family and Child Health-Global Health; HSA=Health Services Administration; PHPM=Public Health Policy and Management; PHP=Public Health Practice; BS – Public Health Undergraduate Major						
^ Classification of faculty may differ by institution, but may refer to teaching, research, service faculty or tenured, tenure-track, non-tenure-track faculty or alternative appointment categories used by the school or program.						
Provide data for the year during which the site visit takes place. If the site visit takes place in fall 2016, the template must present data for fall 2016. If the site visit takes place in spring 2017, the template must present data for spring 2017.						
Schools should only include data on faculty associated with public health degree programs.						

2) Provide summary data on the qualifications of any other faculty with significant involvement in the school's public health instruction in the format of Template E1-2. Schools define "significant" in their own contexts but, at a minimum, include any individuals who regularly provide instruction or supervision for required courses and other experiences listed in the criterion on Curriculum. Reporting on individuals who supervise individual students' practice experience (preceptors, etc.) is not required. The identification of instructional areas must correspond to the data presented in Template C2-1.

Template E1-2 Non-Primary Instructional Faculty (As of 9/10/2019)							
Name*	**Academic Rank^**	**Title and Current Employment**	**FTE or % Time Allocated**	**Graduate Degrees Earned**	**Institution(s) from which degree(s) were earned**	**Discipline in which degrees were earned**	**Concentration affiliated with in Template C2-1**
Asaolu, Ibitola	Lecturer	Epidemiologist Tennessee Department of Health	0.262	Dr.PH	University of Arizona	MCH	MCH
Barker, Gail	Senior Lecturer	Independent Consultant	0.500	PhD	Kennedy Western	Health Administration	PHPM / PHP / HSA / Clinical Leadership
Barrett, Sarah L	Lecturer	Public Health Analyst, Health Resources and Services Administration, Division of Healthy Start and Perinatal Services	0.406	MPH	University of Arizona	Public Health Policy and Management	Public Health Practice
Brady, Benjamin Robert	Assistant Professor or Practice	Assistant Professor of Practice, MEZCOPH	1.000	Dr.PH	University of Arizona	Public Health	Health Behavior/Health Promotion
Carmona, Richard	Distinguished Professor	Chief of Health Innovations, Canyon Ranch Institute	0.10	MD	UC San Francisco	Medicine	Health Behavior Health Promotion, Public Health Policy and Management

Template E1-2 Non-Primary Instructional Faculty (As of 9/10/2019)							
Name*	**Academic Rank^**	**Title and Current Employment**	**FTE or % Time Allocated**	**Graduate Degrees Earned**	**Institution(s) from which degree(s) were earned**	**Discipline in which degrees were earned**	**Concentration affiliated with in Template C2-1**
Casal, Mariana Gabriela	Lecturer	IDES Manager, Pinal County	0.325	MBA/MPH	University of Arizona	Business Administration/Public Health	Epidemiology
Chartier, Keith Ryan	Lecturer	Adjunct Lecturer, MEZCOPH	0.325	MPH	University of Arizona	Public Health	Public Health Practice
Chartrand, Hong Zeng	Lecturer	A.T. Still, AHEC Director Kirkland, Missouri	1.0	Dr.PH	University of Arizona	Public Health	Public Health Practice
Crescioni, Mabel	Lecturer	Adjunct Lecturer, MEZCOPH	0.497	Dr.PH	University of Arizona	Public Health Policy and Management	Public Health Policy and Management
Cutshaw, Christine	Assistant Professor	Director, Health an Public Policy, United Way of Tucson	0.360	Ph.D.	Johns Hopkins	Mental Health	Maternal and Child Health
Duncan, Burris	Professor	Professor, MEZCOPH	0.330	MD	University of Kansas	Medicine/	Maternal and Child Health
Eisen-Cohen, Eileen	Lecturer	Performance Improvement Manager, Office **of the Director, Maricopa County Depart of Public Health**	0.481	Ph.D.	Arizona State University	Public Administration	Health Behavior/Health Promotion
England, Robert W	Lecturer	Director, Pima County Health Department	0.282	M.D.	University of Arizona	Medicine	Health Behavior/Health Promotion

Template E1-2 Non-Primary Instructional Faculty (As of 9/10/2019)							
Name*	**Academic Rank^**	**Title and Current Employment**	**FTE or % Time Allocated**	**Graduate Degrees Earned**	**Institution(s) from which degree(s) were earned**	**Discipline in which degrees were earned**	**Concentration affiliated with in Template C2-1**
Gabriel, Alejandra	Lecturer	Independent Consultant, Adjunct Lecturer, MEZCOPH	0.665	Dr.PH	University of Arizona	Public Health	Public Health Policy and Management
Gamber, Michelle L	Lecturer	Director, of Graduate Public Health, Shenandoah University.	0.217	Ph.D.	University of Arizona	Maternal/Child Health	Health Behavior/Health Promotion
Girard, Christine Lynn	Lecturer	President, National University of Natural Medicine.	0.636	MPH	University of Arizona	Health Services Administration	Health Behavior/Health Promotion
Glasser, Howard	Lecturer	Chairman of the Board, Children's Success Foundation	0.437	MA	New York University	Pscychology	Health Behavior/Health Promotion
Griffin, Stephanie	Assistant Professor	Manager, Research Laboratory & Safety Services, University of Arizona	1.000	Ph.D.	University of Arizona	Environmental Health Sciences	EOH-IH
Grunow, Nathan D	Lecturer	Senior Statistician, Medtronics	0.650	M.S.	University of Arizona	Biostatistics	Biostatistics
Guidas, Elyse Frances	Lecturer	Executive Director of Farm Express	0.406	MPH	University of Arizona	Public Health Practice	Public Health Practice
Harber, Phillip	Professor	Professor, MEZCOPH	0.050	MD, MPH	University of Pennsylvania,	Occupational Medicine	EOH-IH

Template E1-2 Non-Primary Instructional Faculty (As of 9/10/2019)							
Name*	**Academic Rank^**	**Title and Current Employment**	**FTE or % Time Allocated**	**Graduate Degrees Earned**	**Institution(s) from which degree(s) were earned**	**Discipline in which degrees were earned**	**Concentration affiliated with in Template C2-1**
					Johns Hopkins		
Humble, Will	Adjunct Lecturer	CEO, Arizona Public Health Foundation.	0.197	MPH	UC Berkeley	Environmental Health	Public Health Practice
Kebede, Abel A	Lecturer	Maricopa County Health Department, Adjunct Lecturer, MEZCOPH	1.0 0.217	MPH	University of Arizona	Public Health	Public Health Practice
Molmenti, Christine Louise Sardo	Lecturer	Assistant Professor and Cancer Epidemiologist in the Department of Occupational Medicine, Epidemiology and Prevention at Hofstra Northwell Health.	0.655	Ph.D.	University of Arizona	Epidemiology	Epidemiology
O'Rourke, Mary Kay	Professor	Professor, MEZCOPH	0.200	PhD	University of Arizona	Geology	EOH
Roberge, Jason Linscot	Lecturer	Data Scientist, Carolinas HealthCare System	0.699	Ph.D.	University of Arizona	Epidemiology	Epidemiology
Schachter, Kenneth	Assistant Professor	Assistant Professor, MEZCOPH	0.150	MD, MBA	University of Connecticut, university of Phoenix	Medicine, Business	Public Health Policy and Management

Template E1-2 Non-Primary Instructional Faculty (As of 9/10/2019)							
Name*	**Academic Rank^**	**Title and Current Employment**	**FTE or % Time Allocated**	**Graduate Degrees Earned**	**Institution(s) from which degree(s) were earned**	**Discipline in which degrees were earned**	**Concentration affiliated with in Template C2-1**
Schloss, Ernest P	Lecturer	Adjunct Lecturer, MEZCOPH	0.437	Ph.D.	University of Arizona	Educational Administration	Public Health Policy and Management
Sepulveda, Refugio	Lecturer	COM-Department of Neurology, Adjunct Lecturer, MEZCOPH	1.000	Dr.PH	University of Arizona	Public Health	Public Health Practice
Silva, Rodrigo Alfredo	Lecturer	Independent Consultant, Adjunct Lecturer, MEZCOPH	0.325	DVM	Universidad Autonoma Metropolitana	Veterinary Medicine and Animal Husbandry	Public Health Practice
Tanniru, Mohan	Professor	Professor, MEZCOPH	0.300	PhD	Northwestern	Management Information Services	Public Health Practice
Thiagarajan, William	Lecturer	Adjunct Lecturer, MEZCOPH	0.300	M.D.	University of Texas, Houston	Medicine	Public Health Practice
Thomas, Robin	Lecturer	Owner/Operator of Hands On Health Massage & Wellness	0.737	DrPH	University of Arizona	Maternal & Child Health	Maternal and Child Health
Tiggs, Karen J	Lecturer	Adjunct Lecturer, MEZCOPH	0.556	MPH	University of Washington	Public Health Tropical Medicine	Public Health Practice
Tormala, Wayne	Adjunct Lecturer	Bureau Chief, Chronic Diseases, Arizona Department of Health Services	0.437	MSW	Arizona State University	Social Work	Health Behavior/Health Promotion

Template E1-2 Non-Primary Instructional Faculty (As of 9/10/2019)							
Name*	**Academic Rank^**	**Title and Current Employment**	**FTE or % Time Allocated**	**Graduate Degrees Earned**	**Institution(s) from which degree(s) were earned**	**Discipline in which degrees were earned**	**Concentration affiliated with in Template C2-1**
Trembath, Felicia	Lecturer	Fellow with the Health Systems Integration Fellowship Program through CDC/CSTE in Maricopa County.	0.685	Ph.D.	Purdue University	Epidemiology	Health Behavior/Health Promotion
Vincifora, Teresa	Lecturer	Director of Nursing Services at Benson Hospital	0.217	R.N.	Cochise College	Nursing	Public Health Policy and Management
Wightman, Patrick	Assistant Professor	*Director, Health Analytics - Center of Population Science, University of Arizona Health Sciences*	0.100	PhD	University of Chicago	Public Policy	Public Health Policy and Management
Woodson, Lisa Labita	Lecturer	Data Analyst, TANGO, Inc. (Technical Assistance to NGOs)	0.262	MPH	University of Arizona	Global Health	Global Health

3) Include CVs for all individuals listed in the templates above.

CVs are provided in **ERF E1**

4) If applicable, provide a narrative explanation that supplements reviewers' understanding of data in the templates.

The information provided in the tables are in line with our recent review of faculty in order to provide the documentation required by the Higher Learning Commission to Satisfy Faculty Qualifications for Instruction. All of our faculty members were identified as qualified for instruction. The criteria for these qualifications are presented in **ERF E1.1**

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

E2. INTEGRATION OF FACULTY WITH PRACTICE EXPERIENCE

E2. Integration of Faculty with Practice Experience

To assure a broad public health perspective, the school employs faculty who have professional experience in settings outside of academia and have demonstrated competence in public health practice. Schools encourage faculty to maintain ongoing practice links with public health agencies, especially at state and local levels.

To assure the relevance of curricula and individual learning experiences to current and future practice needs and opportunities, schools regularly involve public health practitioners and other individuals involved in public health work through arrangements that may include adjunct and part-time faculty appointments, guest lectures, involvement in committee work, mentoring students, etc.

1) **Describe the manner in which the public health faculty complement integrates perspectives from the field of practice, including information on appointment tracks for practitioners, if applicable. Faculty with significant practice experience outside of that which is typically associated with an academic career should also be identified.**

   Table E1 provides examples for which faculty have been and are currently involved with practice. These practice experiences include both full-time work and collaborating with federal, tribal, state and county health departments and agencies, non-profit organizations, international organizations, and community action groups among others. We use the criterion that any non-academic work with public health organizations that is service and practice oriented is essential for having faculty bring in practice experience into the classroom especially when it is not solely focused on research. In addition to these faculty practice experiences and activities, **Table E1-2** identifies that many of our current non-primary instructional faculty members are currently working as public health practitioners. These part-time instructors also bring their knowledge and experiences into the classrooms. There is a clear connection between of faculty's practice experience with their research interests which involves students and the subjects and lectures that are presented to students. Additionally, these experiences with our practice colleagues have led to developing our academic health department with Pima County which has practitioners and faculty members working together on joint projects and presentations inside and outside of the classroom. The faculty also use their practice experience to help guide students when the develop and implement their applied practice experiences via their internships and dissertation work.

Table E1. Faculty Practice Experiences and Activities – Examples

Faculty Member	Practice Experience and Activities
Paloma Beamer	▪ Member, Board of Scientific Counselors, National Center for Environmental Health / Agency for Toxic Substances and Disease Registry, Centers for Disease Control (2018 to present) ▪ Member, Environmental Quality Advisory Council, Pima County Department of Environmental Quality (2015 to present) ▪ Associate Investigator, Cancer Prevention and Control, Arizona Cancer Center (2007 to present) ▪ Full Member, Southwest Center for Environmental Health Sciences (2009 to present) ▪ Member, Board of Scientific Counselors Chemical Safety for Sustainability Subcommittee, US Environmental Protection Agency (2014 to 2017)

Faculty Member	Practice Experience and Activities
Jeff Burgess	▪ Member, Fire Service Occupational Cancer Alliance, National Fallen Firefighters Foundation (2015 to present) ▪ Member, Mine Safety and Health Research Advisory Committee, National Institute for Occupational Safety and Health (2016 to present) ▪ Committee to Review the NIOSH Mining Safety and Health Research Program, The National Academies/National Research Council, Washington, D.C. (2006 to 2007) ▪ Committee Member, World Health Organization International Programme on Chemical Safety (1995 to 2001)
Stephanie Carroll	▪ Manager, Tribal Health Program, Native Nations Institute, Udall Center for Studies in Public Policy (2001 to present) ▪ Review Committee Member, National Congress of American Indians, Health Policy Fellow Review Committee (2013) ▪ Research Volunteer, Community Health Status Assessment Planning Committee, Pascua Yaqui Tribe Health Department, Tucson, AZ (2000 to 2001)
Heather Carter	▪ Member, Arizona and National Governor's Association Public Health Preparedness Advisory Committee ▪ Member, Arizona Telemedicine Council ▪ Health Committee, Chairwoman as Arizona State Fifty-third Legislature District 15 State Representative (2017 to 2018) ▪ Chair, Ad Hoc Committee on Health Care Workforce (2017 to 2018) ▪ Vice Chair, Health and Human Services as Arizona State Fiftieth Legislature District 15 State Representative (2011 to 2012)
Daniel Derksen	▪ Steering Committee, AZ Department of Health Services, Arizona Health Improvement Plan (2014 to present) ▪ Arizona Rural Health Association Board of Directors (2014 to present) ▪ Chair, Interagency Leadership Committee, New Mexico Office of Health Care Reform (2011 to 2012) ▪ Executive Director of Health Services – led development of a statewide, academic healthcare delivery system (09/1997 to 02/1999)
Duke Duncan	▪ Member, Board of Directors: Humanity for Children (2007 to present) ▪ Chairman, Board of Directors for One Common Unity (2001 to present) ▪ US coordinator for Health Volunteers Overseas Program in Uganda (1995 to 1998) ▪ President, Medical Executive Committee, Children's Clinics for Rehabilitative Services (1995 to 1997) ▪ Chairperson - International Health Committee of AZ Chapter of AAP (1989)

Faculty Member	Practice Experience and Activities
Katherine Ellingson	▪ Public Health Scientist, Centers for Disease Control and Prevention Division of Healthcare Quality Promotion; Office of Blood, Organ, and Other Tissue Safety (Jul. 2016 to Dec. 2016) ▪ Senior Epidemiologist, Oregon Health Authority, Acute and Communicable Disease Prevention, Portland, OR (Sep. 2014 to Jun. 2016) ▪ Epidemiologist (GS 13-5, Health Scientist), Centers for Disease Control and Prevention (CDC), Division of Healthcare Quality Promotion, Office of Prevention Research and Evaluation Atlanta, GA (2008 to 2013) ▪ Epidemic Intelligence Service Officer, Lieutenant, United States Public Health Service, CDC, Atlanta, GA (2006 to 2008)
Kacey Ernst	▪ SWAT team member, Pima County Health Department and Community Partners working to implement vector control in Pima County (2009 to present) ▪ Facilitator, State-wide Pandemic Influenza Exercise; Arizona Department of Health Services (2008) ▪ Influenza Epidemiologist, Office of Infectious Disease Services, Arizona Department of Health Services, Phoenix, Arizona (2007 to 2008) ▪ Bioterrorism Preparedness Coordinator, Milwaukee County/ Waukesha County Consortium, Wauwatosa, Wisconsin (2003)
Michelle Gamber	▪ Senior Associate, Survey Manager for the Department of Health Services Program, ICF International (May 2016 to July 2016) ▪ USAID Technical Advisor, Office of Population and Reproductive Health, Global Health Bureau. (2013 to 2015) ▪ The American Association for Advancement of Science (AAAS) Diplomacy, Security, and Development Fellow. USAID, Gender Advisor, Office of Food for Peace. (2012 to 2013) ▪ Women's Hygiene Project. Fundraise to support the monthly hygienic needs of university women attending Bahir Dar University, Ethiopia. (2011 to 2012)
Joe Gerald	▪ Member Health Policy Committee, American Thoracic Society (2012 – present) ▪ Web Director, Behavioral Sciences and Health Services Research Assembly, American Thoracic Society ▪ Member, Special Advisory Panel to the Governor on Implementation of the Patient Protection and Affordable Care Act (August 2012)
Stephanie Griffin	▪ Member, National Institute for Occupational Safety and Health/National, Hearing Conservation Association Safe-in-Sound Award selection committee (2017 to present) ▪ Member, American Industrial Hygiene Association International Affairs Committee (2015 to 2017) ▪ Environmental Health Officer, U.S. Coast Guard Headquarters, Washington, D.C. (2010 to 2011) ▪ Safety and Environmental Health Officer, U.S. Coast Guard Ninth District, Cleveland, Ohio (2007 to 2010)

Faculty Member	Practice Experience and Activities
Iman Hakim	▪ Member of the city of Tucson" Elder alliance" (2015-2018) ▪ Member of the Healthy Roads International Advisory Committee, a panel of international health experts to assist American Specialty Health (ASH) as it develops programs to meet the need of customers with international employees (2012 to 2015) ▪ Technical support to the Inter-Tribal Council of Arizona, Inc. (ITCA) for their program "reducing health disparities in maternal and child health" (2004 to 2007) ▪ Site supervisor, Minority Health Disparities Summer Program (2002) ▪ Rural Health Development Program, National Research Center, Egypt, (1989 to 1992)
Boris Reiss	▪ Chair, Biological Monitoring Committee, American Industrial Hygiene Association (AIHA) (Jun 2017 to May 2018) ▪ Secretary, Biological Monitoring Committee, AIHA (Jun 2015 to Jun 2017) ▪ Occupational Health and Safety Officer, McGill University, Montreal, Canada (2005 to 2006) ▪ Occupational Hygienist Consultant, Jacques Whitford Environment Limited, Dartmouth, Canada (2003 to 2005) ▪ Air Quality Scientist, Jacques Whitford Environment Limited, Dartmouth, Canada (2000 to 2003)
Cecilia Rosales	▪ Arizona Mexico Commission, Health Services Committee private sector Co-Chair (2016 to present) ▪ Chicanos Por La Causa, Health and Human Services Advisory (2013 to present) ▪ Ventanillas de Salud Advisory to the Ministry of Health, Mexico (2012 to present) ▪ Childhood Obesity Coalition. Phoenix, Arizona (2011 to 2013) ▪ Chief, Office of Border Health, Division of Public Health Services, Arizona Department of Health Services, Tucson, Arizona (2000 to 2005) ▪ Border Epidemiologist, Office of Border Health, Division of Public Health Services, Arizona Department of Health Services, Tucson, Arizona (1998 to 2000)
Kenneth Schachter	▪ Member, Clinical Advisory Board, St. Elizabeth's Clinic 2010-2013 ▪ Southwest Public Health Leadership Institute. Developed a regional border health leadership training program on both sides of the U.S.-Mexico border in partnership with the US-Mexico Border Health Commission, the Pan American Health Organization US-Mexico Field Office, the US Border State Health Department Offices of Border Health, El Colegio De Sonora, and the University of Arizona Center for Public Health Preparedness (2007 to 2010) ▪ Canyon Ranch Center for Prevention & Health Promotion – Comprehensive Diabetes Core Intervention Project. Community-based diabetes prevention and control program (2004 to 2009)

Faculty Member	Practice Experience and Activities
Amanda Sokan	• Program Evaluator, HUD Moving to Work Demonstration Project, Lexington Fayette County Urban Government Housing Authority, KY 2011-13 • Board member, National Volunteer Caregiving Network, 2014 - Present • Mayor's Senior Services Commission, 2013 – 2016 • Advisory Board member, Faith-In-Action Senior Ministry, 2011 – 2013
Douglas Taren	▪ Member, Board of Trustees, Spoon Foundation, Portland, OR. (2018 to present) ▪ Member, Mayor's Commission on Food Security, Heritage and Economy, City of Tucson (2015 to present) ▪ Member, Board of Directors, Community Food Bank of Southern Arizona, Tucson, AZ. (2010 to present) ▪ Member (Resource Person), WHO Nutrition Guidance Expert Advisory Group (NUGAG) Monitoring and Evaluation Subgroup. Joint WHO/PAHO/CDC Meeting on Guidelines for the Assessment of Vitamin A and Iron Status in Populations (2010 to 2011) ▪ Member, Florida's Preterm Labor/ Adverse Outcomes Prevention Work Group (1989 to 1991) ▪ Children's Weight Reduction Program. Healthline, St. Joseph Hospital, Tampa (1989) ▪ WIC Nutritionist, Navajo Nation (1979 to 1982)
Cynthia Thomson	▪ Arizona Department of Health Services Obesity Prevention Group, State Health Improvement Plan (2014 to present) ▪ Director, Arizona Smokers' Helpline (2014 to present) ▪ Consultant, Produce for Better Health, Wilmington, DE. (2009 to 2017 and 2000 to 2004) ▪ Advisory Committee, Arizona Department of Health Services Dietary Approaches to Stop Hypertension (DASH), Community Health Center Education Program (2003 to 2006) ▪ Senior Dietitian, Kino Community Hospital, Tucson, AZ (1982 to 1986)
Nicole Yuan	▪ Director of Clinical Services, Arizona Smokers' Helpline (ASHline). State of Arizona Department of Health Services. (July 2018 to June 2019) ▪ Developed Maternal and Child Health Public Health Training Program. Funded by Department of Health and Human Resources, Health Resources and Services Administration, Maternal and Child Health Bureau (2010 to 2014) ▪ Consultant, Tucson Indian Center 2013 Community Health Needs Assessment (Jan 2013) ▪ Member, Sexual Violence Prevention Planning Committee, Arizona Dept. Health Services (2007 to 2008)
Will Humble	▪ Director of the Arizona Department of Health Services ▪ CEO of the Arizona Public Health Association

Faculty Member	Practice Experience and Activities
Douglas Campos-Outcalt	• Deputy Director of the Arizona Department of Health Services • Medical Director of the Maricopa County Department of Public Health • Interim Health Officer of the Maricopa County Department of Public Health • Public health consultant for two years to the country of Papua New Guinea • National Advisory Councils of the Agency for Health Care Research and Quality, and the National Health Service Corps. • Advisory Committee on Immunization Practices of the CDC and as a liaison to the United States Preventive Services Task Force, representing the American Academy of Family Physicians. • Member of the EGAPP (Evaluation of Genomic Applications in Practice and Prevention) and the Community Preventive Services Task Force, both sponsored by the CDC.
Robert England	▪ Director of the Mariposa County Health Department that includes Phoenix ▪ Arizona Department of Health Services, including medical epidemiologist for HIV & STD services, chief medical officer for the Bureau of Epidemiology and Disease Control, TB control officer, and state epidemiologist ▪ Board of Directors for National Association of City and County Health Officers (NACCHO)
Richard Carmona	▪ 17th US Surgeon General, USA

2) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

E3. FACULTY INSTRUCTIONAL EFFECTIVENESS

E3. Faculty Instructional Effectiveness

The school ensures that systems, policies and procedures are in place to document that all faculty (full-time and part-time) are current in their areas of instructional responsibility and in pedagogical methods.

The school establishes and consistently applies procedures for evaluating faculty competence and performance in instruction.

The school supports professional development and advancement in instructional effectiveness.

1) Describe the means through which the school ensures that faculty are informed and maintain currency in their areas of instructional responsibility. The description must address both primary instructional and non-primary instructional faculty and should provide examples as relevant.

Support of instruction is initiated with the letters of offer that are given to all new faculty members. These letters indicate the amount of teaching that is required as part of their appointment within the college. Additionally, we have a college policy that clearly indicates the compensation that faculty members receive for teaching. The policy is provided in the **ERF E3**. The policy covers teaching regular on campus courses, courses for our online MPH program and courses for our online undergraduate program.

All faculty members are expected to attend professional meetings within their area of research and teaching, publish scholarly work related to the area of study and attend workshops on pedagogy that are related to their instructional responsibilities. These activities are reported each year during their annual performance evaluations. Our faculty also have an active research portfolio from competitive extramural funding. Staying current in their field of research and bringing this research into the classroom is an area that ensures that faculty are staying current in the topic matters related to their instructional responsibilities.

Our faculty are also active within their professional organizations and provide high level consultation to various academic and professional institutions. For example, faculty members attend the annual meetings of the American Public Health Association, the American Statistical Association, etc. Dr. Beamer is the president of the International Society of Exposure Science. The society promotes and advances exposure science as it relates to the complex inter-relationships between human populations, communities, ecosystems, wildlife, and chemical, biological, and physical agents, and non-chemical stressors. Dr. Lynn Gerald, our Canyon Ranch Endowed Chair and professor of health promotion sciences is a member of the National Institutes of Health National Asthma Education and Prevention Program (NAEPP) and received a Lifetime Achievement Award from the American Thoracic Society for her asthma research. Dr. Taren is the Editor-in-Chief for *Nutrition Reviews*, a highly cited (Impact Factor 5.788), monthly, international, peer-reviewed journal that specializes in the publication of authoritative and critical literature reviews on current and emerging topics in nutrition science, food science, clinical nutrition, and nutrition policy.

Examples of non-primary instructional faculty members who maintain currency in their areas of instruction include Chris Cutshaw is who is the Director of Health and Public Policy for the United Way of Tucson and Southern Arizona and Dr. Burris Duncan is the Founder of ASORBO in Nogales, Mexico. *"*ARSOBO *assists in alleviating the physical, psychological, and economic barriers faced by individuals with disabilities by providing appropriate, adaptive-technology, low-cost, assisted devices that improve access and participation in their communities."* ARSOBO has developed Cross Border Public Private Partnerships & Networks to support its mission and vision. It manufactures all terrain wheelchairs, prosthetics and orthotics and supports hearing health by providing solar-powered hearing aids.

The college has now developed a series of workshops. These workshops are part of our college-wide retreat. In May 2019 it focused on team teaching. In August 2019, we had 2 workshops prior to the start of the semester as we prepared to start teaching in our new Health Sciences Innovation Building (HSIB). These two workshops focused on what is needed to have strong group projects and teaching within a collaborative learning space. Workshop are now planned each semester for our faculty. At the same time,

our University's Office of Instruction and Assessment provides numerous workshop and training opportunities for faculty members.

2) Describe the school's procedures for evaluating faculty instructional effectiveness. Include a description of the processes used for student course evaluations and peer evaluations, if applicable.

Instructional effectiveness is conducted with teaching course evaluations (TCEs) that are administered by the University Office of Instruction and Assessment, peer review of individual courses, during annual performance evaluations, personal statements during the promotion and tenure process, and via nominations for outstanding teaching awards.

TCEs are online evaluations. Students anonymously complete the evaluations at the end of each course and faculty receive the results after grades are submitted. The evaluations include questions using a Likert Scale about teaching effectiveness, course effectiveness, usefulness of homework and assignments, amount learned in the course, how well students were treated with respect, amount of time spent on the course compared with other courses. The results of these evaluations are made public. College administrators are also able to see a comparative report to determine how the outcomes relate to similar courses within the University.

Peer evaluations are conducted by the departments using tools designed by the University's Office of Instruction and Assessment for Course evaluations and a procedure that was pilot tested by the College's Office of Academic Affairs. The methodology is described more fully in the next section.

3) Describe available university and programmatic support for continuous improvement in faculty's instructional roles. Provide three to five examples of school involvement in or use of these resources. The description must address both primary instructional faculty and non-primary instructional faculty.

Examples:

- The College uses the OIA peer evaluation system for classroom observations (See **ERF E3**). The protocol for peer review of teaching is designed to guide UA instructors in the process of formative review of peers' teaching, as well as evaluation of teaching for summative review. The protocol includes resources for review of face-to-face and fully online courses. Formative review is used to provide feedback for professional growth and development. Our College's guidelines for using this protocol are below.
    - Two faculty members do the reviews using the following steps:
    - Reviewers obtain the syllabus and get access to the D2L site if the course uses it.
    - Reviewers meet with the course instructor and discuss the course and go over the evaluation form that was used when sitting in a class and make any modifications as appropriate given the course. (This evaluation form is from OIA.) The team may also review the past TCEs.
    - Each reviewer goes to one class and complete the evaluation form.
    - After both reviewers have gone to a class, write up a 1-2-page report as a team.
    - Meet with the faculty members and give them the report. This should be a constructive report stating the strengths and areas that could be improved with course.
    - Make any modifications to the report after the meeting and then send the final report to the instructor and the department head.

- The College uses the OIA teacher-course evaluations. As described above, TCEs are administered for each course for all faculty members. The TCEs provide scores back to the administrators and a comparative report. When a score for teaching effectiveness or for course effectiveness is below 3 (on a 1 to 5 Likert Scale), there is a discussion with the faculty member on how to improve the course.

- The College works with others on campus and with OIA to provide workshops on pedagogy. The College has now developed a series of workshops related to teaching. These workshops have been

part of our college-wide retreat and as individual workshops. In May 2019 it focused on team teaching. This was led by Dr. Paul Blowers, a UA Distinguished Professor of Teaching who has developed an innovative and award-winning program in the College of Engineering. In August 2019, we had 2 workshops prior to the start of the semester as we prepared to start teaching in our new Health Sciences Innovation Building (HSIB). These two workshops focused on what is needed to have strong group projects and teaching within a collaborative learning space. Workshop are now planned each semester for our faculty. At the same time, our University's Office of Instruction and Assessment (OIA) provides numerous workshop and training opportunities for faculty members. OIA supports faculty by having workshops on teaching, the use of technology, writing and learning, use of the D2L, our college's learning management system, and provides a certificate in college teaching that is available to our students and faculty.

4) Describe the role of evaluations of instructional effectiveness in decisions about faculty advancement.

In preparation for requests for faculty advancement, the results of TCEs are now automatically incorporated into the UAVITAE system for annual performance evaluations. Thus, on a yearly basis, the teaching faculty get feedback from students and their peers regarding their instructional effectiveness. In addition to the TCEs, faculty also have the ability to provide additional nuanced outcomes regarding their effectiveness. This can include how they work with students on research and service project and on publications and other scholarly work. The evaluation of instructional effectiveness is included in each faculty members teaching portfolio that is part of their promotion and tenure dossier. Additionally, faculty members address the observations and recommendations from their peer evaluations as a method to improve their instructional effectiveness.

5) Select at least three indicators, with one from each of the listed categories that are meaningful to the school and relate to instructional quality. Describe the school's approach and progress over the last three years for each of the chosen indicators. In addition to at least three from the lists in the criteria, the school may add indicators that are significant to its own mission and context. Schools should focus data and descriptions on its public health degree programs.

<u>Faculty currency</u>

- External reviews of proposed or existing courses or curricula, outside of normal university processes
- Peer/internal review of syllabi/curricula for currency of readings, topics, methods, etc.
- Annual or other regular reviews of faculty productivity, relation of scholarship to instruction
- Faculty maintenance of relevant professional credentials or certifications that require continuing education

<u>Faculty instructional technique</u>

- Frequency of internal quality reviews of existing courses or curricula
- Participation in professional development related to instruction
- Peer evaluation of teaching
- Student satisfaction with instructional quality

<u>School- or program-level outcomes</u>

- Courses that are team-taught with interprofessional perspectives
- Courses that integrate technology in innovative ways to enhance learning
- Courses that involve community-based practitioners
- Courses that integrate service learning, as defined by the school or program
- Courses that integrate community-based projects
- Courses that use higher-level assessments
- Courses that employ active learning techniques
- Teaching assistants trained in pedagogical techniques
- Implementation of grading rubrics

Faculty currency

Peer/internal review of syllabi/curricula for currency of readings, topics, methods, etc.: MEZCOPH takes on peer and internal review of syllabi and curricula through several mechanisms. Initial reviews occur when a new course is proposed. This review goes through department review and one is conducted by the College's Education Committee before a new course is submitted to the University. Peer review of courses also occur when faculty are undergoing their third-year review and before promotion. The process for these reviews were provided in subsection 3 above. Additional peer review of teaching may take place later too. Faculty are to respond to the how they used their peer review and this self-evaluation is part of promotion and tenure packages. Additionally, each year, public health programs are asked to review their curricula and make recommendations for any changes that need to occur so they may be put into our Course Curriculum Guide and Student Handbook. Curriculum changes are also reviewed for how they may affect the scheduling of courses.

Annual or other regular reviews of faculty productivity, relation of scholarship to instruction: MEZCOPH utilizes peer review and administrative review of faculty productivity on an annual basis. Faculty are required to use the university's UAVitae software to upload their accomplishments with regards to teaching, research and service. UAVitae provides a printout that is then reviewed by a department peer review committee, the department chair and dean. In addition to annual performance reviews, MEZCOPH participates in a post-tenure review process for all tenured faculty members. Post-tenure review includes reporting the outcome of annual reviews. All tenured faculty members have successfully been reviewed through this process.

Faculty instructional technique

Participation in professional development related to instruction: MEZCOPH has set up a goal of having all faculty participate in a continuing education program related to pedagogy no less than once every two years. To support this goal, MEZCOPH has started to provide a series of trainings for faculty that are held within our instructional facilities located in Drachman Hall and the Health Sciences Innovation Building. During the past year, these programs have included 20% to 25% of the faculty and topics have included how to optimize team teaching using teaching assistants, how to use collaborative learning classrooms and how to better plan, implement and evaluate group work.

Implementation of grading rubrics: Evaluation of DrPH Comprehensive Written Exams are conducted using a rubric based on the critical thinking domains from the Foundation for Critical Thinking based in San Francisco, California. The exams are case-based and students are required to sit for a closed book exam and to complete an open-book policy brief.

Student satisfaction with instructional quality: **Table E2** provides data on student satisfaction with instructional quality based on teaching-course evaluations that are conducted with students at the end of the semester for each course. The table addresses the quality of instruction for our undergraduate and graduate courses. We have focused both on having very high scores for teaching effectiveness and the overall rating of the course and also on minimizing classes with low scores on teaching effectiveness and course ratings. As can be seen from the table, very few MEZCOPH courses have teaching effectiveness scores of less than 3.0. However, overall courses ratings tended to score lower than teaching effectiveness scores. At the same time, 70% of all MEZCOPH courses had a very high score for teaching effectiveness for the 2018-19 academic year but average high course ratings of were at 36% for the same year. Nonetheless, more than half of the MEZCOPH courses had greater scores than comparable courses in at the UA for both teaching effectiveness and overall course ratings. The scoring system is based off the following Likert Scale: Teaching effectiveness: 1 (almost never effective) to 5 (almost always effective); Course rating: 1 (one of the worse courses) to 5 (one of the best courses).

Table E2. Teaching and Course Effectiveness

	2016-2017		2017-2018		2018-2019*	
Undergraduate Level Courses (n)	80		67		61	
Teaching Effectiveness Average	4.15		4.06		4.06	
Scored < 2.5	0	0%	1	1%	0	0%
Scored < 3.0	3	4%	3	4%	2	3%
Scored ≥ 4	51	64%	39	58%	36	59%
Rated ≥ to comparison group	42	53%	39	58%	35	57%
Overall Course Average	3.78		3.70		3.66	
Scored < 2.5	3	4%	3	4%	3	5%
Scored < 3.0	7	9%	10	15%	10	16%
Scored ≥ 4	36	45%	25	37%	18	30%
Rated ≥ to comparison group	44	55%	35	52%	31	51%
Graduate Level	165		141		124	
Teaching Effectiveness Average	4.20		4.08		4.22	
Scored < 2.5	2	1%	4	3%	1	1%
Scored < 3.0	6	4%	9	6%	4	3%
Scored ≥ 4	120	73%	92	65%	92	74%
Rated ≥ to comparison group	98	59%	92	65%	75	60%
Overall Course Average	3.72		3.69		3.74	
Scored < 2.5	6	4%	11	8%	4	3%
Scored < 3.0	22	13%	26	18%	13	10%
Scored ≥ 4	70	42%	60	43%	50	40%
Rated ≥ to comparison group	85	52%	92	65%	70	56%
All Courses	245		226		205	
Teaching Effectiveness Average	4.19		4.09		4.17	
Scored < 2.5	2	1%	5	2%	1	0%
Scored < 3.0	9	4%	12	5%	6	3%
Scored ≥ 4	171	70%	144	64%	144	70%
Rated ≥ to comparison group	140	57%	142	63%	120	59%
Overall Course Average	3.74		3.70		3.17	
Scored < 2.5	9	4%	14	6%	7	3%
Scored < 3.0	29	12%	37	16%	25	12%
Scored ≥ 4	106	43%	90	40%	74	36%
Rated ≥ to comparison group	129	53%	137	61%	112	55%

School- or program-level outcomes:

Courses that integrate technology in innovative ways to enhance learning: MEZCOPH has a long-history of using technology to provide learning to students throughout the state. The MPH program, the precursor to the College, used microwave interactive television as early as 1994 to provide synchronous courses to students in Tucson, Phoenix and Flagstaff, Arizona. The College currently stays current and is an early

adaptor to technology for example it often uses Zoom, Panapto and other software programs to provide synchronous courses to students in various parts of Arizona and to allow students to review courses following various lectures.

Courses that involve community-based practitioners: MEZCOPH has focused on developing numerous service learning courses that actively engaged community-based practitioners. These service learning courses have students work intensely with community-based partners during a one-week period. Service learning activities with community-based partners are also incorporated into lecture courses as well as being an essential part of how we ensure applied practice experiences. We also have shared our experience with service learning courses through a publication by Sabo et al in the *American Journal of Public Health* (See **ERF E3**).

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

E4. FACULTY SCHOLARSHIP

E4. Faculty Scholarship

The school has policies and practices in place to support faculty involvement in scholarly activities. As many faculty as possible are involved in research and scholarly activity in some form, whether funded or unfunded. Ongoing participation in research and scholarly activity ensures that faculty are relevant and current in their field of expertise, that their work is peer reviewed and that they are content experts.

The types and extent of faculty research align with university and school missions and relate to the types of degrees offered.

Faculty integrate research and scholarship with their instructional activities. Research allows faculty to bring real-world examples into the classroom to update and inspire teaching and provides opportunities for students to engage in research activities, if desired or appropriate for the degree program.

1) **Describe the school's definition of and expectations regarding faculty research and scholarly activity.**

   The research mission of the University requires faculty members to contribute actively to the expansion of intellectual frontiers and to participate in the creation and/or scientific application, translation, evaluation, and dissemination of new knowledge. Tenure-track faculty and faculty whose primary area of responsibility is considered to be research are generally expected to participate in applied and/or basic research and to contribute to the research activities and grant applications of other MEZCOPH faculty. Specific expectations are based on the faculty member's Annual Work Plan.

   In addition to faculty researchers, MEZCOPH also has academic professionals who contribute to the research mission of the College. These individuals are appointed, non-faculty employees who are involved with research, service or teaching programs, who require professional and intellectual freedom. Beyond their work on individual projects and grants, academic professionals are key to providing technical assistance and collaboration with community partners and the public health infrastructure in our state and region. The specific expectations of research, teaching and service are determined in consultation with their supervisors at the time of the development of their annual work plan.

2) **Describe available university and school support for research and scholarly activities.**

   Support for research and scholarly activities occurs at the level of the University, the University of Arizona Health Sciences (UAHS), MEZCOPH and within the departments of MEZCOPH. Faculty prepare grants with the assistance of the UAHS Research Administration Office and MEZCOPH's business office. MEZCOPH's research office fosters and supports faculty research in conjunction with the business office, Centers, and the Departments. All grants and contracts must go through multiple levels of review and approval, beginning with the Department. Proposals are then forwarded to the Dean's office for fiscal review and approval. The final level of review occurs at the University level with the Office of Sponsored Projects. All research projects involving human or animal subjects are reviewed by the University's Institutional Review Board (IRB) or the Institutional Animal Care and Use Committee (IACUC) and must be approved before research begins.

   The University's Vice President for Research (VPR) supports the College's research mission by providing 30% of start-up packages to be used for research development and expansion. Funds secured for newly hired and retained faculty are used to offset initial and ongoing costs of research personnel, operating needs, travel, equipment and renovation of laboratory space. MEZCOPH is responsible for any remaining costs to the commitment. As a result, MEZCOPH routinely looks for and often secures strategic partnerships with other colleges during candidate negotiations to better secure the hire and start-up commitment. The VPR also supports scholarly activities within MEZCOPH through the Office of Research, Discovery & Innovation (RDI). RDI personnel help MEZCOPH faculty identify potential funding opportunities and will also upon request will review proposals and make recommendations for improvements. IRB and IACUC review and approval also takes place at the University level.

Development and submission of grant proposals (and development of contracts) are supported primarily by the UAHS Research Administration Office. They assist MEZCOPH faculty in the development of budgets, budget justifications and submission of proposals to the University of Arizona Sponsored Projects and Contracting Services. Post-award support is primarily provided by the MEZCOPH business office.

The Office of the Associate Dean for Research oversees MEZCOPH's research mission. The Associate Dean for Research facilitates research and serves as the liaison between the College, the IRB and IACUC, and the Office of the Vice President for Research. The Associate Dean for Research also meets regularly with other Associate Deans across campus, colleagues within the community and other organizations to discuss research issues and potential collaborations. Within MEZCOPH, the Associate Dean for Research works with the Department Chairs and faculty to prioritize hiring and resources, and is responsible for mentoring individual faculty, fostering and encouraging multi-disciplinary collaborations within MEZCOPH, across the University and with the community.

The Office of the Associate Dean for Research also provides review of grant proposals at the stage of specific aims development and also assistance with reorganizing unfunded proposals for resubmission in response to study section summary statements. This is done through the Research Advisory Committee (RAC), composed predominantly of seasoned faculty Principal Investigators with extensive experience and funding success with grant proposals.

Several College wide mechanisms for pilot research funding exist. The Dean's Fund provides travel funds and funding for seed grants for MEZCOPH faculty and students. Priority is given to grants that are focused on projects that involve community collaborations related to health promotion and that have the potential to significantly reduce the burden of chronic diseases among those disproportionately affected. Faculty grants are expected to generate pilot data to support external grant applications. Student grants are expected to be an integral part of their dissertation. Over the last 3 years, it has supported seven activities, three dissertations, 11 internships and publication costs. **Table E3** provides details on the types of projects that have been funded.

Table E3. Dean's Fund Supported Activities

Student/Faculty	Project
Student: Emily Cooksey	Activity: attend 4-day training at UNC Institute of Marine Sciences on Oyster and Molecular Microbiology
Faculty: Duke Duncan	Activity: Class activity on veganism and changes in biomarkers
Faculty: Paloma Beamer	Activity: Conduct Town Hall on ground water contamination
Student: Iva Skobic	Activity: Present at the annual meeting of the American Academy of Sleep Medicine and the Sleep Research Society on results of a study on marijuana use on sleep on relaxation
Faculty: Robin Harris	Activity: School based program on Sun Safety that includes 17 MEZCOPH students, 1 MPH internship, 7 schools, 21 classrooms, and several community presentations
Student: Amanda Urbina	Activity: Support Indigenous Day of Health.
Faculty: Beth Jacobs	Activity: The RISE Young Leaders Program. A one-week summer program for students in Santa Cruz County along the US-Mexico border.
Student: Zeenat Mahal	Dissertation: The Hualapai Injury Intervention program
Student: Nidal Kram	Dissertation: Study to prevent mother-to-child HIV transmission in Nigeria
Student: Joy Chebet	Dissertation: The role of vulnerability, resilience, empowerment and their association with child health in Geita Region Tanzania
Student: Rachel Leih	Internship: The acceptability of newly designed infant growth chart.

Table E3. Dean's Fund Supported Activities	
Student/Faculty	**Project**
Student: Emily Harris	Internship: UNICEF, Lesotho to work on micronutrient power intervention to prevent anemia in children and to support projects focused on preventing mother-to-child HIV transmission
Student: Benjamin Aceves	Internship: Community-based project on a beverage intervention for Hispanic adults
Student: Erika Rodriguez	Internship: Community-based project on a beverage intervention for Hispanic adults
Student: Keegan Krause	Internship: Conduct a community and occupational health assessment of young adults in the informal tourism sector in the Dominican Republic
Student: Michelle Valenti –	Internship: Conduct study with women's groups on the use of diversifying green leafy vegetables to improve child nutrition in Benin
Student: Dakshina Gautam –	Internship: Study the effect of the double burden of malnutrition in slum neighborhoods of Kathmandu Nepal
Student: Rowena Davis	Internship: Supplementary evaluation of WASH in Schools in Tanzania
Student: Jana Lee	Internship: UNICEF Lesotho to work as an intern on sexual and reproduction health/HIV Social Network Mapping.
Student: Charles Brand	Internship: UNICEF Nepal
Student: Jessie Wrona	Internship: WASH Project in Tanzania
Student: Lysbeth Flooden	Publication in *BMC Medical Research Methodology*

MEZCOPH's Canyon Ranch Center for Prevention and Health Promotion (CRCPHP) provides funding for pilot/feasibility (P/F) studies in the area of nutrition, physical activity, or obesity. The funds serve to stimulate research and support collaboration that will strengthen the overall mission and specific goals of the CRCPHP. The P/F studies may focus on any area of research related to nutrition, physical activity, or obesity and are designed to 1) provide initial project support for new investigators; 2) allow exploration of possible new directions for established investigators; 3) stimulate investigators from other areas of endeavor to use their expertise for nutrition/obesity research, and 4) support collaboration among academic, community, and public health stakeholders in the pursuit of addressing health disparities. In addition to these College wide programs, there are other opportunities for pilot grant funding on campus such as the Vice President for Research's Community Connection and Faculty Seed grants and small grant opportunities from University Centers.

MEZCOPH laboratory space includes the Medical Research Building (MRB) adjacent to Drachman. The MRB is a state-of-the-art facility containing 8,218 net square feet of open, shared core facilities, wet labs, and faculty/student office space designed to maximize collaborative research and interaction among students and faculty. The MRB houses significant infrastructure and tools for studying industrial hygiene, indoor environmental surveillance, and biological exposure assessments. The research office space also includes a copy room with IKON copier and two conference rooms available by appointment. All MEZCOPH/CEP computers at MRB have been equipped with Ethernet and/or wireless. These computers are equipped with a wide variety of software, including Microsoft Office, ArcGIS, S-PLUS, STATA, and MATLAB. The computers are connected to a Local Area Network, which provides access to back-up servers and laser printer(s).

In order to facilitate successful research in junior faculty, faculty members below the rank of Professor are required to have a mentor. The selection is usually made by the faculty member in conjunction with his or her division director. The mentor is expected to meet regularly with the faculty member and to complete

an assessment of progress in the faculty member's annual performance review (APR). In addition, the MEZCOPH Research Office, often in collaboration with the Research Offices from the other colleges at the UA, offers workshops and symposia for faculty and students.

3) Describe and provide three to five examples of faculty research activities and how faculty integrate research and scholarly activities and experience into their instruction of students.

MEZCOPH uses several mechanisms to monitor the changing practice or research needs and uses this information to drive changes in the curriculum. First, faculty members are actively involved with research and stay current in their specific areas of expertise with publications and attendance at national and international meetings. The faculty members bring their current knowledge from these activities back to the classroom. Second, MEZCOPH faculty members have also participated on various competency workgroups within ASPH. Their involvement in the DrPH and undergraduate competency workgroups allows information to flow back to the College about the current national thought on competencies and what is needed within the curriculum. Third, the Arizona Public Health Training Center is actively involved with assessing the training needs of the public health workforce. The training needs assessment that is developed covers what the employers believe they need to be productive and the assessments are also done with employers related to what they perceive as the training needs for the public health workforce.

Specific examples of student opportunities for involvement in faculty research and scholarly activities are described below for Dr. Melanie Bell, Dr. Doug Taren, Dr. Janet Foote and Dr. Kelly Reynolds.

Dr. Bell, Biostatistics Professor, teaches BIOS 576C, Applied Biostatistics Analysis in the fall semester. This is a project-based class where each of the students are required to collaborate with a researcher (often a faculty member in the College of Public Health or in the Health Sciences) to do an in-depth analysis on real data. This project includes meeting with the professor and their collaborator to discuss the study design and research question, writing a statistical analysis plan, giving an oral presentation, and writing a report. Several students have submitted abstracts and manuscripts with their collaborators. A list of published and in submission papers are given below:

1. **Wilson A, Kurgat E**, Verhougstraete MP, Martin SL, Kendall AD, Rose JB, Bell ML, Hyndman DW. Explaining Bacteroides thetaiotaomicron and Escherichia coli concentrations in Michigan watersheds with adaptive LASSO linear regression models. In submission.
2. **Chebet J**, Thomson CA, Kohler LN, Ehiri J, Luo J, Cheng TYD, Pan K, Chlebowski RT, Nassir R, Sealy-Jefferson S, Manson J, Saquib N, Bell ML. Association of Diet Quality and Physical Activity on Obesity-Related Cancer Risk and Mortality in Black Women: Results from the Women's Health Initiative. In submission.
3. Garcia DO, **Cousineau V**, Kohler L, Lander EM, Bell ML, Wertheim BC, Salmoirago-Blotcher E, Bird CE, Volpe SL, Safford M, Wand Y, Manson JE, Kuller LH, Stefanick ML & Cynthia A. Thomson CA. Pet Ownership and Cardiovascular Risk in the Women's Health Initiative. In submission.
4. **Anderson EJ, Chebet J**, Asaolu IO, Bell ML, Ehiri J. Influence of women's empowerment on place of delivery in North Eastern and Western Kenya: A cross-sectional analysis of the Kenya Demographic Health Survey . In submission.
5. Marrone N, Ingram M, **Bischoff K, Burgen E**, Carvajal S, Bell ML. Self-reported hearing difficulty and its association with general, cognitive and mental health in the state of Arizona. Revise and resubmit. *BMC Public Health.* In press, accepted 14 June 2019.
6. **Peterson RL**, Carvajal SC, McGuire LC, Fain MJ, Bell ML. State inequality, socioeconomic status and subjective cognitive decline in the United States. *Social Science in Medicine-Population Health.* 7:100357.
7. **Schmidt CA, Romine JK**, Bell ML, Armin J, Gordon JS (2017) User participation and engagement with the See Me Smoke-Free mHealth app: Results of a prospective feasibility trial. *Journal of Medical Internet Research.* 5(10):e142
8. **Jung A, Schweers N,** Bell ML, Nair U, Yuan NP. (2017) Predictors of tobacco cessation among quitline callers who implement home smoking bans during the quitting process. *Preventing Chronic Disease.* 14:170139.
9. Ernst KC, **Erly S**, Adusei C, Bell ML, Kessie D, Biritwum-Nyarko A, Ehiri J. (2017) Reported bed net ownership and use in social contacts is associated with uptake of bed nets for malaria prevention in pregnant women in Ghana. *Malaria Journal.* 16:1,13.

10. Sabo S, **Flores M,** Wennerstrom A, Bell ML, Verdugo L, Carvajal S, Ingram M. (2017) Community health workers promote civic engagement and organizational capacity to impact health equity through policy. *Journal of Community Health.* 42(6):1197-1203.
11. **Valdez L**, Bell ML, Garcia DO. (2016) Assessing the influence of living and working conditions on alcohol consumption on migrant farmworkers in Mexico. *Californian Journal of Health Promotion* 2016, 14: 3, 12-21.
12. Sabo S, Wennerstrom A, **Phillips D,** Haywood C, Redondo F, Bell ML, Ingram M. Community health worker professional advocacy: voices of action from the 2014 national community health worker advocacy survey. (2015) *Journal of Ambulatory Care Management*. 38(3):225-35.

Dr. Taren has incorporated much of his research into the two international nutrition courses that he teaches. His lectures for HPS 560 International Nutrition, on vitamin A deficiency, infant feeding and mother-to-child HIV transmission (MTCT), and on food security incorporates his research in these areas from studies conducted in Nepal, Kenya, and Ethiopia, respectively. Specifically, he shows how providing low-dose vitamin A to treat night blindness through community health posts is dependent on the severity of night blindness and the infrastructure is available. His work in Kenya illustrates the importance of exclusive breastfeeding to decrease the risk of MTCT. His work in Ethiopia illustrates how the World Food Program approaches and evaluates their humanitarian assistance. Additionally, given his extensive field work in multiple countries, he uses this experience in his HPS 416 The World's Food and Health to guide discussions about how food availability, food preparation, and culture affect individual and community nutrition status.

Dr. Foote has incorporated research into three of the courses that she teaches. The PHP696V course, part of the MPH in Public Health Practice core, introduces students to research with requiring completion of the CITI ethnics training. Students work with community outreach organizations over the semester including summarizing analytics or comparing community organization experiences to local or national indices. Students summarize the data in an abstract submitted to the Annual Arizona Health Equity conference and usually are invited to complete a poster presentation. In EPID 573A, students review a questionnaire and learn about design considerations for questionnaires. Students are then introduced to Qualtrics – a University licensed survey software program. Each student builds and posts a link to a brief survey that is completed by classmates, and then each student investigator summarizes at least two key results using the back-end resources available in the Qualtrics software. Presentation of the key results are graded to ensure that students properly annotate charts and figures while providing clear, appropriate summaries of the results being depicted. Along with being introduced to survey development foundations, students practice providing visual and written interpretation of findings. In HPS 478, students learn about several types of dietary assessment tools along with learning about dietary recommendations. Each student completes online food records using the ASA24 (NCI) system and then examines his/her own dietary intake by comparing intake summaries to recommendation levels of food groups and specific nutrients.

Dr. Reynolds is the leader of the Environment, Exposure Science and Risk Assessment Center (ESRAC), located within MEZCOPH, which provides a platform for multidisciplinary research and scholarly activities among academia, industry and community partnerships. Local and global partnerships provide opportunities for students to learn about current research and participate in hands-on applications in field sampling for environmental contaminants and human health risk assessment modeling. Experiences and results from active ESRAC projects are incorporated into her student instruction through laboratory courses (i.e., EHS 502 Environmental Monitoring and Analysis), lectures (i.e., EHS 575 Environmental and Occupational Health; EHS 518 Introduction to Human Health Risk Assessment), independent studies tailored to student interests as well as broad spectrum training (i.e., EHS 900 Independent Study), and internship experiences (i.e., EHS 909 Internship). Real world examples and case studies from faculty and student research collaborations are utilized in her course instruction and the development of applicable skills for the field. Students are provided opportunities for hands-on training through a variety of real-world and simulated activities aligned with previous and ongoing ESRAC projects. Specific examples of ESRAC research integration into student instruction include:

- Exposure assessment of chemicals and microbes from targeted environments (EHS 575; 518)
- Use of Monte Carlo simulations to characterize health outcomes (EHS 518)
- Case studies in human health risk assessment (EHS 518)

- Tracking waterborne infections using an observational and modeled approach (EHS 575; 502; 518)
- Use of cultural and PCR methods in field monitoring (EHS 575; 502)
- Modeling healthcare risks from microbial contaminants (EHS 575; 518; 900; 909)
- Household hygiene monitoring and risk (EHS 900)
- Office wellness studies (EHS 518; 900; 909)
- Evaluation of PPE efficacy (EHS 900)

4) Describe and provide three to five examples of student opportunities for involvement in faculty research and scholarly activities.

MEZCOPH has a successful research program that is consistent with the College's mission. Students and faculty contribute to the knowledge base of public health disciplines, including research directed at improving the practice of public health. The College's research program actively engages community partners and collaborators for successful community-based research. The Centers allow MEZCOPH to integrate multiple disciplines when working on public health research, service and workforce development. The College receives funding from a wide range of agencies. Students are actively involved in research and the College's support for student research activities is substantial. MEZCOPH faculty and appointed professionals are actively involved as PIs in research and continue to receive funding even in difficult economic times. As shown in the following table, MEZCOPH has met its goals for research (Indicators 1-4) each of the past three years. We continue to strongly support student involvement in research and continue to work to improve this area.

At MEZCOPH, students are encouraged to participate in research with faculty members in the process of discovering new knowledge, ideas and approaches to improve public health. The level of each student's involvement in research varies according to his or her degree program and the duration of the program. Faculty are encouraged to use students in their research projects and many students are supported through graduate research assistants or positions on research grants. Students with GRAs are actively involved in faculty research.

PhD and MS programs require a research-oriented dissertation, the focus of which is usually generated through involvement in faculty research. An MPH student's internship may also have a research component. Students are encouraged to present their research at APHA or other professional meetings and are eligible for financial assistance for travel to the meetings. In addition, the UAHS has an annual Poster Forum for students in the health sciences colleges (medicine, nursing, pharmacy, and public health). MEZCOPH financially supports this event and encourages students to present their research.

Faculty research interests contribute to the overall curriculum of each academic section within the College. All academic sections offer seminars in which faculty members present their research activities for discussion and students are encouraged to participate.

Specific examples of student opportunities for involvement in faculty research and scholarly activities are described below for the Arizona Prevention Research Center, the Hopi Environmental Health Project, El Trabajo no te Debe Dañar, Arizona Department of Health Services (ADHS) Medical Marijuana Program, and the Environment, Exposure Science and Risk Assessment Center (ESRAC).

The Arizona Prevention Research Center (AzPRC) provides numerous opportunities for MPH and doctoral students to engage in activities designed to build their knowledge and skills in four major areas: community engaged research, health disparities, US Mexico Border health issues and chronic disease prevention research. The AzPRC engages approximately 25 students a year in comprehensive training and research activities, in which they also may gain skills in qualitative and quantitative mixed methods, community assessment, participatory evaluation and policy development. This student engagement occurs through formal coursework, graduate and undergraduate internships, and Graduate Assistantships. The Border Service Learning Course is a formal course that takes place each year in a border community. MPH and DRPH students spend a week with the AzPRC's Community Action Board (CAB) partners reflecting on social, economic and political factors that impact the health of residents and contributing to community organization priorities and efforts. AzPRC faculty assist the students in securing internships with the CAB

partners, and mentor them in their experiences. The AzPRC also offers students numerous opportunities to be involved in community-engaged research as Graduate Research Assistants (GRAs). For example, a graduate student helped to conduct and analyze focus groups with AzPRC's community partners as part of a current Core Research Project. She is developing a manuscript that merges those findings with an analysis of survey data responses from participants. Another example is a doctoral level student in Biostatistics who is developing innovative approaches to AzPRC data analysis. GRAs are also involved in an ongoing participatory partnership with Mariposa Community Health Center, which culminates each year in an evaluation report that they develop with and for AzPRC partners. AzPRC faculty provide students numerous internship opportunities that are tailored to meet their training interest. In one example, a student conducted her MPH internship with the Arizona Community Health Worker (CHW) Association in which she coordinated stakeholders in developing a process to approve CHW training programs for CHW voluntary certification. This certification was subsequently passed into law by the Arizona Legislature. She also helped AzCHOW develop a "Core Competency Review" or 4-hour interview in which CHW Voluntary Certification applicants discuss the core competencies of the profession. Through AzPRC's collaborative grant development they have also encouraged community partners to include stipends for students to provide grant related services. AzPRC facilitated student involvement in a HRSA grant to conduct a needs assessment of elderly residents in Santa Cruz County, as well as assistance in evaluation an effort to improve food systems. Finally, AzPRC has connected several students over the years to efforts of the Arizona Department of Health Services Division of Prevention Services, giving them the opportunity to make connections with state-level public health efforts.

The University of Arizona is the recipient of an NIEHS sponsored environmental health disparity center named "The Center for Indigenous Health Research" (CIEHR). The Hopi Environmental Health Project (HEHP) of CIEHR is a partnership between the University of Arizona and the Hopi Tribe. The project utilizes a community-based participatory research structure, and aims to (1) characterize the magnitude of environmental exposures to particulate matter (PM), As species, U and other contaminants from air, water, and food in households among the Hopi; (2) evaluate how exposures are moderated by social determinants of health, social capital and community resilience; and (3) expand the Hopi Tribe's capacity to address areas of environmental concern that can inform programs and policy. Tribal members conduct all fieldwork with support by the work of our university students. The project has provided a variety of research opportunities for sixteen individual students including interaction with the Community Advisory Board, questionnaire development, calibration and training with air pollution equipment, writing and implementing field procedures, training Hopi field personnel, data entry, database development, data analysis, and manuscript preparation. In addition to instruction from faculty, all students receive ethics and safety training (CITI, Native American Module, Chemical safety, Biosafety, MEZCOPH Lab Safety). The project interacts with STEM programs on campus to maximize student research opportunities (EHS-TRU, UROC, BLASIER, UBRP and STEPS). Some of these programs are designed to enhance diversity in STEM related fields. Of the sixteen students on the HEHP project, six are Hispanic and three are Native. There are three students in the EHS PhD program and one in the EHS MS program. Six undergraduate students completed their internship with the program, three students used project data for their undergraduate honors theses and one high school student joined us for a summer research experience.

The NIEHS is also funding an R01 research project *"El Trabajo no te Debe Dañar*: Reduction of Hazardous Exposures in Small Businesses through a Community Health Worker Intervention" As PI, Dr. Paloma Beamer uses a community engaged research framework to assess exposures and their effects on health among vulnerable populations, actively engaging students and community members. This project aims to reduce negative health outcomes in small businesses that primarily employ high-risk Latino workers by characterizing their exposures to hazardous chemicals and assessing if a community health worker (CHW) intervention is effective at decreasing these exposures. Although preventable by definition, occupational disease and injuries are leading causes of death in the United States, with a disproportionate burden faced by Latinos. Small businesses pose a particular risk. They are more likely to employ low-wage Latino workers, and often use hazardous solvents including volatile organic chemicals that can cause asthma, cancer, cardiovascular, and neurological disease; yet their workers lack access to culturally and linguistically appropriate occupational health and pollution prevention information due to economic, physical, and social barriers. CHW-led interventions and outreach in Latino communities have documented increased access to health care and health education and reduced workplace exposures among farmworkers. CHWs are an innovative method to bridge the gap between these small business

communities and other stakeholders. The proposed project will capitalize on established partnerships between the University of Arizona, the Sonora Environmental Research Institute, Inc. and the El Rio Community Health Center. In the first year and a half of this project, 9 MEZCOPH undergraduates and 5 graduate students (3 EHS PhD, 1 Epidemiology PhD, 1 Anthropology PhD) have helped develop, refine, and implement to varying degrees nearly every component of the project, with much of it bilingual, including occupational health site audits, chemical sampling instructions, participant report back materials, and qualitative analyses of interviews. Eleven of the students are Latinx and the project has also allowed them to engage with community partners including SERI (a non-profit) and El Rio Community Health Center (FQHC). While Dr. Beamer's projects have collected valuable research data, they have inspired students, the majority from underrepresented backgrounds, to continue their education in environmental and public health and provided them an opportunity to serve these communities.

The state of Arizona passed the Medical Marijuana Act (AMMA) in 2010. The AMMA allows licensed health care providers within the state to recommend to patients the use of medical marijuana for at least one qualifying condition. Under a service contract with the Arizona Department of Health Services (ADHS) Medical Marijuana Program, Dr. Rosales and her team have had the opportunity, for the last eight years, to integrate research and scholarly activities by providing students in our program real world experience and instruction in response to a state health agency aiming to inform policy. They provide students at all levels (undergraduate, graduate and doctoral students) the opportunity and experience of learning how to conduct systematic reviews, prepare the review protocols, the actual systematic review, and publication of their work. In 2011, they reviewed conditions proposed by residents who were attempting to qualify conditions for medical marijuana use through an application to ADHS-AMMA. The initial reports prepared by the UA MEZCOPH, 2012-2013, were published by ADHS and found at https://azdhs.gov/licensing/medical-marijuana/index.php#debilitating under *Debilitating Medical Conditions:*

- 2013 Report on Depression
- 2013 Report on Migraines
- 2013 Report on Post-Traumatic Stress Disorder
- 2012 Report from Canadian Agency for Drugs and Technologies in Health (June)
- 2012 Report on Depression
- 2012 Report on Generalized Anxiety Disorder
- 2012 Report on Migraine Headaches
- 2012 Report on Post Traumatic Stress Disorder (PTSD)

In 2014, through joint decision with the ADHS-AMMA staff, the team transitioned to using the Cochrane methodology to conduct more extensive search and meta-analysis, when viable. The following lists the published manuscripts:

The effects of prenatal cannabis exposure on fetal development and pregnancy outcomes: a protocol
Jayleen K L Gunn***, Cecilia B Rosales, Katherine E Center***, Annabelle V Nuñez, Steven J Gibson*, John E Ehiri BMJ Open. 2015; 5(3): e007227. Published online 2015 Mar 13. doi: 10.1136/bmjopen-2014-007227 PMCID: PMC4360840

Gunn JK***, Rosales CB, Center KE, Nuñez A, Gibson SJ*, Christ C, Ehiri JE. Prenatal exposure to cannabis and maternal and child health outcomes: a systematic review and meta-analysis. BMJ Open. 2016 Apr 5;6(4):e009986. doi: 10.1136/bmjopen-2015-009986. Review. PubMed PMID: 27048634; PubMed Central PMCID: PMC4823436.

Structural barriers in access to medical marijuana in the USA—a systematic review protocol
Celina I. Valencia***, Ibitola O. Asaolu***, John E. Ehiri, Cecilia Rosales. Syst Rev. 2017; 6: 154. Published online 2017 Aug 7. doi: 10.1186/s13643-017-0541-4 PMCID: PMC5547531

The Environment, Exposure Science and Risk Assessment Center (ESRAC), located within MEZCOPH provides opportunities for students to be directly involved in faculty research and scholarly activities. Students may engage in research through enrollment in 900-level independent study course credits or formal internship opportunities. ESRAC's mission is to bring together an array of industry, academic, community, and other stakeholders leading to partnerships for interdisciplinary research and teaching.

Students work alongside faculty, interacting with local and global partners and gaining experiences in collaborative research planning, execution, outreach and publication. Specific projects involving students (in bold) include:

1. Canales, R.A., **A.M. Wilson**, R.G. Sinclair, M. Soto-Beltran, J. Pearce-Walker, M. Molina, M. Penny**, K.A. Reynolds**. 2019. Microbial study of household hygiene conditions and associated *Listeria monocytogenes* infection risks for Peruvian Women. Tropical Medicine and International Health. *In print.* https://onlinelibrary.wiley.com/doi/10.1111/tmi.13246
2. **Kurgat, E.K**., J.D. Sexton, **F. Garavito**, A. Reynolds, **R.D. Contreras**, C.P. Gerba, R. Leslie, S. Edmonds-Wilson, K.A. Reynolds. 2019. Impact of a hygiene intervention on virus spread in an office building. International Journal of Hygiene and Environmental Health. 222: 479-486. https://doi.org/10.1016/j.ijheh.2019.01.001
3. **Munoz-Gutierrez, K.M**., R. A. Canales, K.A. Reynolds, M.P. Verhougstraete. 2018. Floor and environmental contamination during glove disposal. Journal of Hospital Infection. 101(3): 347-353. DOI:10.1016/j.jhin.2018.10.015.
4. Reynolds, K.A., J.D. Sexton, **T. Pivo, K. Humphrey**, R.A. Leslie, C.P. Gerba. 2018. Microbial Transmission in an Outpatient Clinic and Impact of an Intervention with an Ethanol-Based Disinfectant. American Journal of Infection Control. 47(2):128-132 https://doi.org/10.1016/j.ajic.2018.06.017

5) Describe the role of research and scholarly activity in decisions about faculty advancement.

The role of research and scholarly activity for faculty advancement depends on the faculty classification. Scholarly activity is required for all tenure-eligible faculty, and is expected from all tenured faculty. Career track faculty may have primary research roles or may have not have research expectations. Many tenure-eligible faculty members have a 40% time expectation for scholarly activity, with the exact amount determined year to year in agreement with the faculty member's department chair.

MEZCOPH has an annual performance review (APR) process that allows faculty members to demonstrate their competence and performance regarding their teaching, research and service so it can be reviewed by their peers and division directors. This process provides information back to faculty members so they can use it to prepare for their promotion and tenure process, and the post-tenure reviews of tenured faculty. MEZCOPH conducts the APRs each calendar year using an online process, APROL (Annual Performance Review Online). All Faculty members enter their information into the APROL system which is then stored in a searchable database. The faculty member completes these performance review documents and provides a self-ranking on instruction, research, service and administration (if applicable).

The APR documents include the work plan from the previous year, courses taught, graduate student advising and committee membership, research/scholarship grants funded, research/scholarship grants submitted, publications, scholarly presentations, awards and honors, College and university service, local, state, national and international service. The documents and updated curriculum vitae are provided electronically to the department chair and reviewed by a Peer Review Committee of three or more members who assess the faculty and provide a ranking on instruction, research, and service. All faculty members meet with their department chair to discuss their review, the comments of the Peer Review Committee, and the department chair's rankings. The work plan for the next year is finalized at this meeting.

The completed annual performance reviews are then forwarded to the Dean's office. In consultation with the department chairs, the Dean addresses any problems with faculty performance and also identifies those individuals who have made especially noteworthy contributions to MEZCOPH's programs. The Dean also meets with all faculty members individually on a biannual basis to go over their progress and future goals. MEZCOPH also recognizes outstanding performance by its faculty and academic professionals with annual awards for teaching, research, and service. In addition, MEZCOPH faculty, academic professionals and staff compete successfully for university-wide awards.

An additional means of faculty evaluation is through the promotion and tenure process. Briefly, promotion and tenure guidelines for appointment and promotion formalize achievement expectations for specific ranks. For appointment to Assistant Professor, promise must be demonstrated in the areas of teaching, research and service. Promotion to Associate Professor with tenure is achieved by demonstrating

documented excellence in teaching and mentoring, providing indicators of a national reputation in scholarly activity, demonstrating leadership and excellence in service to the institution, and service at the regional or national level. Promotion to full Professor is achieved by demonstrating international recognition for scholarly contributions, continued excellence in teaching, a national or international reputation in service, and also a demonstrated leadership role in mentoring junior faculty.

Tenure-eligible faculty members undergo a mandatory third-year review to inform their development plan for mentoring and to assure that the candidate is on track to achieve tenure. The final tenure review is conducted no later than the 6th year in rank. Upon promotion to associate professor with tenure, the typical career progression is evaluation for promotion to professor with tenure no later than the 6th year in rank. All promotion processes for tenure-eligible or tenured individuals are subject to review by the University of Arizona Promotion and Tenure Committee and the Provost's Office.

The MEZCOPH Promotion and Tenure committee also is responsible for the annual post-tenure review process. Briefly, the annual performance review ratings of all tenured faculty members are reviewed, with 20% of the tenured faculty selected for an in-depth discussion of their annual performance review documents on a yearly basis. If any deficiencies are noted, a Faculty Development Plan or a Performance Improvement Plan (depending on the extent of the deficiencies) is developed by the faculty member, their Division Director and the Dean. Such plans state goals with monitoring and benchmarks to ensure that the noted deficiencies are rectified within the specified period.

Non-tenure eligible faculty requirements for appointment to rank are identical to those for tenure eligible, except that the expectation for excellence may be in two of the three evaluated areas (i.e., research/scholarship, teaching, service). Non-tenure-eligible faculty members undergo review every fifth year for promotion or retention in rank (Assistant Professors) or every sixth year (Associate Professors). Non-tenure eligible appointments or promotions are not reviewed by the University Promotion and Tenure Committee, but are reviewed at the Provost's Office for integrity of process.

6) **Select at least three of the measures that are meaningful to the school and demonstrate its success in research and scholarly activities. Provide a target for each measure and data from the last three years in the format of Template E4-1. In addition to at least three from the list in the criteria, the school may add measures that are significant to its own mission and context**.

As evident from MEZCOPH's funding, the College's portfolio is diverse, ranging from bench science to community-based research. Funding is obtained from a wide variety of sources, including federal agencies such as NIH, CDC, HRSA, SAMHSA, to national and local foundations. Equally impressive are the wide-ranging collaborations within and among a variety of academic institutions, state and local health departments, and community agencies locally, nationally and internationally. Considerable effort is made to address issues of health disparities with a focus on the underserved populations of the Southwest. MEZCOPH also strives to involve students in both the conduct of the projects as well as publications resulting from them. MEZCOPH will continue to work to support its research mission and the research activities of its faculty and administrative professionals. The College has also allocated funds for an additional senior accountant in the Business Office to support the college's research enterprise.

Template E4-1. MEZCOPH Indicators of Success for Research Activities from 2016-2018

Indicator	2016	2017	2018
1.1 Expenditures on externally funded grants & contracts (with MEZCOPH PI) will average at least $250,000 annually per TE/T faculty member	$350,042	$359,326	$324,747
1.2 Primary faculty will, on average, be externally funded for at least 30% time for research, training and/or other scholarly activity	36%	30%	32%
1.3 Tenured and tenure-track faculty will publish, on average, at least three peer-reviewed articles per year	4.53	4.53	3.93
1.4 At graduation, at least 40% of our MPH students will have participated in a research project (as part of a class or outside of the classroom), given a scientific presentation or were an author or coauthor of a publication	40%	55%	55%

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not applicable.

E5. FACULTY EXTRAMURAL SERVICE

E5. Faculty Extramural Service

The school defines expectations regarding faculty extramural service activity. Participation in internal university committees is not within the definition of this section. Service as described here refers to contributions of professional expertise to the community, including professional practice. It is an explicit activity undertaken for the benefit of the greater society, over and beyond what is accomplished through instruction and research.

As many faculty as possible are actively engaged with the community through communication, collaboration, consultation, provision of technical assistance and other means of sharing the school's professional knowledge and skills. While these activities may generate revenue, the value of faculty service is not measured in financial terms.

1) **Describe the school's definition and expectations regarding faculty extramural service activity. Explain how these relate/compare to university definitions and expectations.**

   Faculty are expected to provide extramural service. Extramural service is defined as having service to community organizations, professional organizations, government. It is also further categorized as being local, state, national and international. In keeping with the overall mission and the service and practice goal, community engagement has served as a framework for continued strong, synergistic relationships connecting research, instruction and practice. This framework provides the opportunity for the centers and initiatives to include within their agendas numerous community engagement, practice and service activities. Additionally, the College has identified major priority focus areas for its community engagement which includes health disparities, strengthening collaboration, healthy Arizona priorities, and public health preparedness. The service activities are carried out by the College's centers, within course work including service learning course and by individual faculty and academic professionals.

2) **Describe available university and school support for extramural service activities.**

   Tenure and tenure eligible faculty members are provided state funding for 0.50 FTE of which 0.2 FTE supports service and research efforts that are determined by the faculty member and the department chair. Additionally, the college supports having a strong overlap between research and service for many faculty members whose studies work closely with community organizations.

   We support service learning as stand-alone courses and service activities within courses. The service learning courses have expanded over the years. Initially there were two community-based field courses and these expanded to four service learning courses with similar themes to work closely with community-based organizations. The college then started a course that has students respond to suspected outbreaks of food-borne illnesses. We then set up separate courses that have students who in schools regarding sun safety, asthma management, girl's self-esteem. We also have a relatively new course that has students work with state legislators and with the Pima Animal Care Center. Additionally, several faculty members have incorporated service activities within the regularly taught courses.

   The projects conducted by our centers have strong service components. An example is the Arizona Prevention Research Center that works closely with our state's association of community health workers, and the Mariposa Community Health Center, a federally qualified community health center located in Nogales, Arizona.

3) **Describe and provide three to five examples of faculty extramural service activities and how faculty integrate service experiences into their instruction of students.**

   Kidenga: Kidenga is a community-based disease detection system which allows the team of public health investigators to track day-biting mosquito populations within a community and identify people who have symptoms of illness. The app also provides users with county-level confirmed case information, educational material and up-to-date news on mosquito activity. To help public health agencies detect these

viruses as early as possible, researchers at the UA Zuckerman College of Public Health are looking for citizen scientists to use Kidenga to help collect data on *Aedes aegypti*, the mosquito that transmits Zika, dengue and chikungunya and other diseases. Any resident of the U.S. and Canada over age 13 can use the app. Once a week, Kidenga will ask users to report mosquito activity and symptoms near their home. Users also can view aggregate information from other user reports within their zip code; get the latest news on Zika, dengue and chikungunya; and learn how to protect themselves, their family and community from diseases spread by mosquitoes. This development of this app was led by Kacey Ernst with students in collaboration with the Arizona Research Laboratories' Bio Computing Facility.

School Based Asthma Management: Dr. Lynn Gerald has implemented school-based asthma programs in selected elementary schools in Tucson and on the Navajo Reservation. The Supervised Asthma Medicine in Schools (SAMS) has an interdisciplinary team that includes Joe Gerald, MD, PhD, a health economist and health outcomes researcher and Aimee Snyder, MPH, and DrPH student at the UA Mel and Enid Zuckerman College of Public Health; Jamie Goodwin, PhD, and Clara Ehrman, BS, BSHS, experienced project managers at the Arizona Respiratory Center; Conrad Clemens, MD, a pediatrician and associate dean for graduate medical education at the UA College of Medicine – Tucson; Mark Brown, MD, a pediatric pulmonary specialist at the Arizona Respiratory Center; Donna Bryson, RN, AE-C, a lung health educator with the American Lung Association in Arizona; Donna Johnson, RN, BSN, Med, TUSD director of school health services; and Nikki Stefan, RN, BSN, TUSD coordinator of school health services. The work of this team also led to the passage of an Arizona state bill that allows schools to have stock albuterol inhalers for students with asthma. Non-medical school personnel are now certified and able to administer albuterol after completing a free online training course developed by our college's Western Region Public Health Training Center.

Safe Bars: Dr. Mary Koss and Dr. Elise Lopez are working with bars to train liquor serving staff to intervene in situations that could be precursors to sexual assault. These researchers look at individual level outcomes in servers that are using these intervention strategies, peer-level changes in feeling supported to intervene, bar level changes to create a less rape-supportive environment, and community change through police calls for sexual assault within a one-mile radius of each Arizona's Universities (UA, Arizona State University and Northern Arizona University). Funded by the National Institute on Alcohol Abuse and Alcoholism.

One Health Program: Our MPH One Health concentration has integrated two extramural activities into the curriculum that provide students Dr. Pogreba-Brown directs the Student Aid for Field Epidemiology Response (SAFER) team that has students work with various county health departments in Arizona as well as the state health department to aid in outbreak investigations and serves on the state's Foodborne Taskforce Committee.

4) Describe and provide three to five examples of student opportunities for involvement in faculty extramural service.

- *Healthy 2B Me Summer Camp for Kids. The Healthy 2B Me* summer camp program for children ages 7-10 occurs during the months of June and July. It has a 7-year history of existence and is coordinated by the Canyon Ranch Center for Health Promotion. The camp provides MEZCOPH students opportunities to provide nutrition and physical education to children. MEZCOPH students also learn how to organize events. These week-long day camps expose kids to all the summer fun activities they love like swimming, yoga, and Zumba, plus team building exercises, cooking demonstrations, and art activities, while learning about sun safety, dental hygiene, tobacco prevention, nutrition, germ safety, and more! The lessons are taught by experts from the UA College of Public Health, the UA Canyon Ranch Center for Prevention and Health Promotion, and members of the Tucson community.

- *Go Girrrls* Go Grrrls is a gender-specific intervention curriculum for early adolescent girls that tries to promote a positive transition to adulthood It is a social skill building and psychoeducational program administered in a group setting — targeted towards girls in their early teens. When compared to a control group using a self-reported evaluation, the program has shown a positive effect on girls' self-efficacy, body image and assertiveness. A pilot

program was launched in 1995 and a final version was published in 1999. It is administered by a team of two or more co-facilitators. Students work with Dr. Velia Nuno to provide the after-school intervention. The program is partitioned into several sessions of 30-60 minutes length. They are administered over a dozen weeks and focused on six topics:

- "Being a girl": introduction and evaluation, identifying gender roles and challenging societal pressures.
- Positive body image and mindset: activities to boost self-image; understanding the effects of self-criticism, depression and eating disorders.
- Making and keeping friends: social and life skills, independent critical thinking and developing satisfactory peer relationships.
- When it all seems like too much: teach girls when to seek help and how to find resources for help.
- Let's talk about sex: basics of reproduction, sexuality and sexually transmitted diseases, how to refuse unwanted advances, and the effects of drugs and alcohol.
- "Planning for the future": teach girls to make goals and work to achieve them.

- Pima Animal Care Center. Dr. Pogreba-Brown and Dr. Ellingson have formed a partnership with the Pima Animal Care Center (PACC) to allow graduate students to participate in research projects at the animal shelter as part of their One Health program coursework. The students taking this course look at current PACC initiatives and programs in order to gain a better understanding of their operation and effectiveness when it comes to serving animals and people, in the interest of protecting and supporting overall public health. The students focus on several areas, including **Evaluation of call-line data:** Students monitor the calls coming into PACC looking for patterns in the type of requests from the community; **Infection Control:** The students document the diseases and infections of animals being processed into the shelter to identify areas in Pima County in greatest need of help; **Program Evaluation:** The students evaluate existing PACC programs, including Foster Care and Care Kits for pet owners facing homelessness; and **Intake Data:** Students provide a survey that can help determine additional information on pets and owners such as demographics, breed, and vaccination history.

- *Juntos Por La Salud* (Together for Health). Students work with the college's primary prevention mobile health unit to support "Saludable" (Healthy), a six-week prevention and intervention program designed for children ages 8-13 to tackle the link between toxic stress and obesity in Latino children living in both Pima and Maricopa counties. The curriculum focuses on three areas of health and well-being: nutrition, physical activity (in the form of yoga), and mindfulness-based stress reduction (MBSR) techniques.

5) Select at least three of the indicators that are meaningful to the school and relate to service. Describe the school's approach and progress over the last three years for each of the chosen indicators. In addition to at least three from the list in the criteria, the school may add indicators that are significant to its own mission and context.

Four indicators related to service that are meaningful to our school from the list in the CEPH criteria are:
• Number of community-based service projects
• Percent of primary instructional faculty participating in extramural service activities
• Total service funding
• Faculty appointed on a professional practice track

The following graphics provide the time trend for the indicators that our school uses to that indicate our dedication and effort to service. These data represent ongoing community engagement. These indicators are collected through our UAVita system, UA accounting resources and our human resources office.

Number of community-based service projects (2016-2018)

The number of faculty members engaged in community-based service projects had a significant increase in 2017 compared with 2016 and then remained relatively the same in 2018 (**Figure 3**). We are currently collecting data for 2019 through UAVITA which is used for our annual performance evaluation of faculty

members. We believe that our historical track record of being community engaged is being maintained. We are pleased with keeping a large number of faculty engaged in community-based service projects. This was validated by being one of two finalists for the 2018 ASPPH Harrison C. Spencer Award for Outstanding Community Service (**Figure 4)**.

Figure 3. Number of Faculty Members Engaged in Community-Based Projects

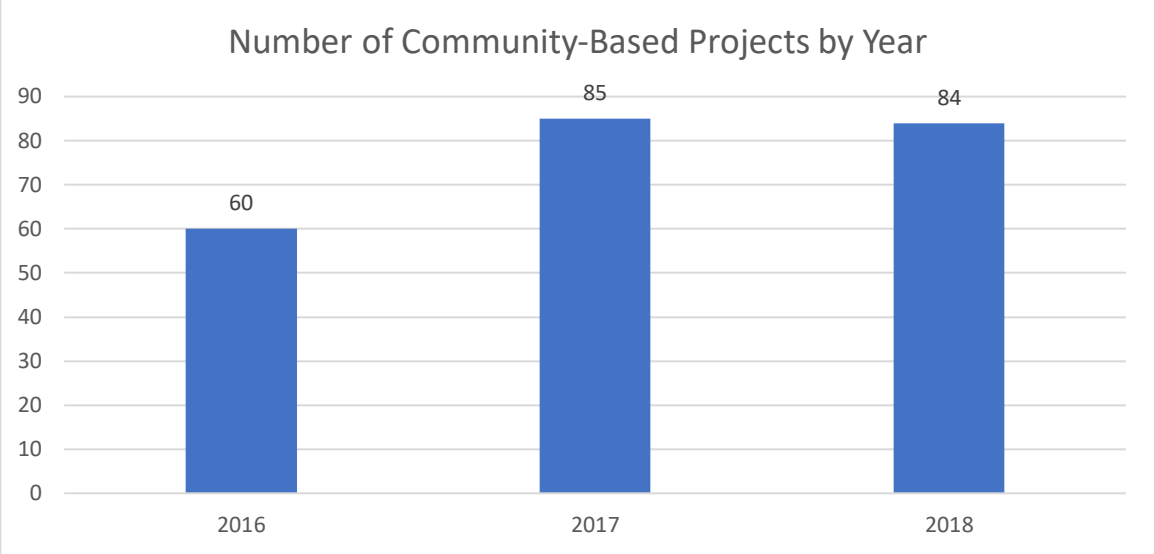


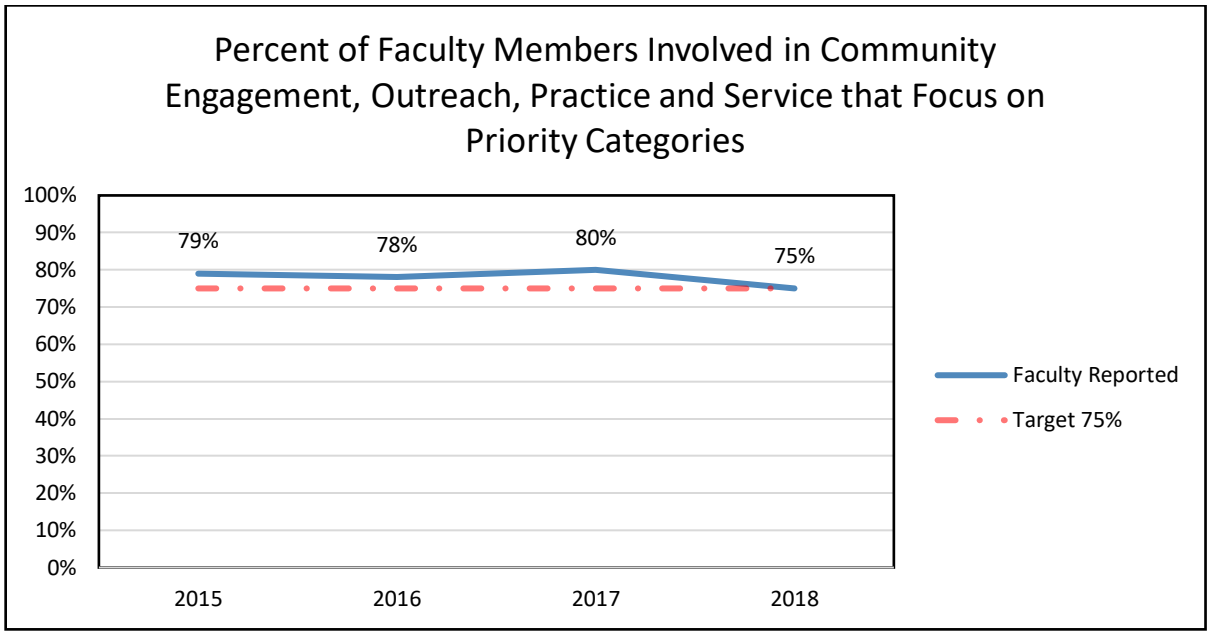
Figure 4. **2018 ASPPH Harrison C. Spencer Award**

Percent of primary instructional faculty participating in extramural service activities (2015-2018)

Figure 5 indicates that percent of faculty and academic professionals who were engaged each year with community engagement. The data are sourced from UAVitae, Service as part of a faculty member's annual performance evaluation. The service is linked to their overall performance which is also linked to merit

increases. The activities include professional service and outreach Extramural with any COPH Engagement Attribute or any Healthy People engagement attributes. These data indicate that greater than 75% of our faculty and academic professionals are engaged in these activities. Many of these activities have been described previously and include working with health departments, local non-profits, schools, and private industry. We believe that keeping above 75% each year is commendable and we look to continue to have faculty involved.

Figure 5. Faculty's Community Engagement Objective



Total service funding

A significant amount of our extramural funding is focused on service. The sources of funds come from multiple sources (**Table E5**). A complete list of the service projects is provided in **ERF E5** which identifies the PI for the grant, project title and the amount funded each year. Although there was a decrease in funding from 2017 to 2018 due to fluctuations in the cycles of grant funding, funding for the past two years has remained stable. The decrease in 2018 was partially due to less emphasis on our navigator programs that supported enrolling citizens onto insurance programs with the Affordable Care Act. We anticipate that 2020 funding will significantly increase as we have obtained several grants (> $650,000) to address the opioid epidemic in Arizona.

Table E5. Extramural Funding Sources for Service

Fund Group Name	2017	2018	2019
State	425,535.37	418,387.65	504,092.55
Designated	180,285.05	259,764.23	153,416.93
Designated - IDC and Patent Accounts	18,896.90	1,310.53	333.71
Sponsored Projects	7,740,659.76	5,620,008.60	5,085,871.69
Other Restricted	108,094.93	95,657.93	183,696.59
TOTAL	**8,473,472.01**	**6,395,128.94**	**5,927,411.47**

Number of practice-based faculty

MEZCOPH employ numerous faculty members as instructors for the college based on their experience or current positions as public health practitioners. In 2018, MEZCOPH started to transition several of its career track faculty to be identified as professors of practice. Currently, several of the of the assistant professors of practice also hold leadership positions in the college and are taking on larger roles within the University of Arizona Health Sciences. For example, three program directors are professors of practice (Aminata Kilungo for Environmental and Occupational Health; Eduardo Gonzalez for Public Health Practice and Health Services Administration; and Velia Nuno for Family and Child Health). Additionally, Heather Carter, an Assistant Professor of Practice is also leading the Health Sciences strategic initiative 1.4 to Minimize the Debt Burden for Students. As a State Senator, she led the passage of the Arizona legislation that will provide full tuition scholarships for medical students who commit to practicing primary care in rural Arizona and has developed a financial literacy education program for public health students. **Table E5.1** provides the number of professional practice-track faculty.

Table E5.1 Number of Practice Professors

UA Title	Year 2017	Year 2018	Year 2019
Assistant Professor of Practice		3	12
Assistant Professor, Public Health	31	26	24
Assistant Research Professor, Public Health			2
Associate Professor	3	3	3
Lecturer	23	24	21
Professor	14	13	16
Senior Lecturer	3	3	3
Grand Total	74	72	81

In addition to the CEPH identified indicators we also track and want to ensure that faculty, academic and service professionals are involved in the delivery of workforce development/continuing education activities to diverse audiences.

MEZCOPH has been a leading college of public health for its involvement with community service. It has conducted needs assessment for more than public health workforce personnel working in county, state and tribal health departments to support their accreditation. During the past 7 years, the MEZCOPH Training Center with its partners has developed numerous online trainings, webinars, and two pod-cast series and hosts 2 pod-cast series for its partners at the California AHEC and the University of Nevada, Reno.

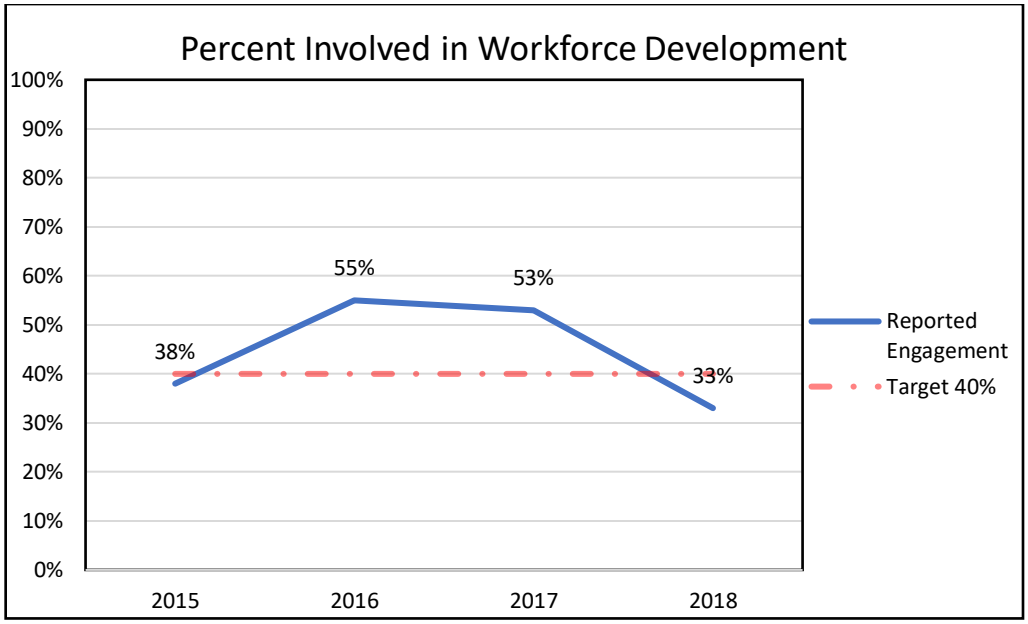
MEZCOPH has created an active academic health department with Pima County. Since the formalization of the Academic Health Department in August 2019 with Pima County Health Department, the Office of the Interim Associate Dean of Community and Engagement and Outreach is establishing Academic Health Departments with Cochise and Santa Cruz County. The Academic Health Department in Cochise County has prioritized the following collaboration areas: 1. Mental Health/Substance Use 2. Lead Poisoning Program and 3. Development of a Public Health Internship Program. Unlike the Academic Health Departments in Cochise County and Pima County, the Academic Health Department in Santa Cruz County is an agreement between MEZCOPH, Santa Cruz County Health Department, and Mariposa Community Health Center, a Federally Qualified Health Center. Priority areas for 2020 and the Memorandum of Understanding is underway.

As a component of the Academic Health Department, the Office of the Interim Associate Dean of Community Engagement and Outreach has coordinated in-person trainings with the National Network of Libraries of Medicine Pacific Southwest Education and Outreach Librarian for health department employees. The trainings are unique and are developed based on the needs of the public health workforce at Cochise Health and Social Services, Santa Cruz County Health Department, Mariposa Community Center, and Pima County Health Department. The trainings will be held on February 10th and 11th.

Figure 6 provides the trend for the percent of faculty involved with workforce development was greater than 40% in 2016 and 2017 but dropped during the past year. This may be an anomaly in the data but also a result of the extensive amount of workforce development that is being provided by the college's public health training center. Data sourced from UAVitae, MEZCOPH Continuing Education and Workforce Development input

section, and Extramural Service with an activity classification of “Continuing Education and Workforce Development.” Additionally, in response to the reported decline, MEZCOPH has initiated the development of a public health academic health department with Pima County Health Department. The collaboration has resulted in developing a mini-public health school consisting of a series of joint seminars (**See ERF E6)** and having faculty members participate in a 10-episode podcast series, Keeping Up with Public Health (https://anchor.fm/keeping-up) developed by the WRPHTC that highlight their research as part of continual training program for the public health workforce.

Figure 6. Faculty Engaged in Workforce Development Objective



6) Describe the role of service in decisions about faculty advancement.

As a land grant institution, Service is central to the mission of the University as well as the College. All faculty members are expected to contribute to the service mission of the College and the University through a variety of activities which include collaboration with the public health infrastructure in the state at the local, tribal, and state levels as well as collaboration with those community-based organizations implementing essential services which correspond to the services and functions of public health. Additionally, faculty members are expected to provide service through their relationships with professional organizations and nationally and internationally through public health networks. Each faculty member determines the specific expectations of service based on his/her academic expertise and the annual work plan in consultation with his/her division director.

In terms of the specific promotion and tenure process, the guidelines were modified in 2003 to expand the definition of scholarship, teaching and service to be inclusive of community engagement in all three areas. Over the following years, CEPAS has continued to provide documentation and orientation to all faculty members to assist in developing portfolios that highlight community engagement and community engaged scholarship.

Service is part of the promotion and tenure packet. Faculty are required to report their percent effort that they have provided to service. The official promotion and tenure packet has a section for service. Each faculty member also has to include what has been their contribution to service within the personal statement for promotion and tenure.

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

F1. COMMUNITY INVOLVEMENT IN SCHOOL EVALUATION AND ASSESSMENT

F1. Community Involvement in School Evaluation and Assessment

The school engages constituents, including community stakeholders, alumni, employers and other relevant community partners. Stakeholders may include professionals in sectors other than health (eg, attorneys, architects, parks and recreation personnel).

Specifically, the school ensures that constituents provide regular feedback on its student outcomes, curriculum and overall planning processes, including the self-study process.

1) **Describe any formal structures for constituent input (eg, community advisory board, alumni association, etc.). List members and/or officers as applicable, with their credentials and professional affiliations.**

   The college's centers and initiatives provide for a strong foundation for partnerships with community organizations to implement public health in a meaningful context that is relevant to the region. In addition, these partnerships serve as an important mechanism for assuring that community organizations are actively involved in the work of the College. **Table F1** provides examples of the number and qualification of community members who work with our Centers and Initiatives.

Table F1. Community Advisors on MEZCOPH Programs

College's Centers and Initiatives	Community Members
Arizona Prevention Research Center	Andres Yubeta, El Rio Community Health Center Alma Valles, Sunset Community Health Clinic Brook Bender, Hualapai CHW Cassalyn David, Mariposa Community Health Center Cynthia Espinoza, Yuma County Health Department Diana Gomez, Yuma County Health Department David Rogers, Sunset Community Health Clinic Erica Smith, Pima County Health Department Floribella Redondo, Arizona CHW Association Gail Emrich, SEAHEC Gloria Coronado, Yuma County Health Department Robert Guerrero, AzDHS, Office of Border Health Judith Gilligan, Cochise County Department Lucy Murrieta, Sunset Community Health Clinic Lorena Verdugo, El Rio Community Health Center Maria Velasco, El Rio Community Health Center Mark Gallegos, Maricopa County Department Martha Ochoa, Arizona CHW Association Rhonda Gonzales, Food Bank of Southern Arizona Susan Lange, Chiricahua Community Health Center Susan Kunz, Kunz Consulting Emma Torres, Campesinos Sin Frontereas Travis Cook, Chiricahua Community Health Center Yanitza Soto, AzDHS Maria Chavoya, Cenpatico Health
Western Region Public Health Training Center	Will Humble, President Arizona Public Health Association Bob England, Director Pima County Health Department Joann Julian, San Diego Health Department Karen Braun, University of Hawaii Office of Public Health Trisha Kajimura, Mental Health Hawaii Christopher Marchand, University of Nevada, Reno Gary Ackerman, University of Nevada, Reno, AHEC Ken Cutler, Nevada County Public Health Department
Arizona Rural Health Office	Sean Clendaniel, President

College's Centers and Initiatives	Community Members
	Kevin Driesen, PhD, Past President Robert Fleet, Member-at-Large, Past President Mariajose Almazan, Treasure Amanda Aguirre, Member-at-Large, Past President Alison Hughes, Public Policy/Program Committee Chair Kris Erps, Co-Chair Membership/Communications Committee Chair Jack Beverige, Member-at-Large, Past President Jeri Byrne, Member-at-Large, Co-Chair Membership/Communications Committee Chair Holly Figueroa, Member-at-Large Robert Guerrero, Member-at-Large Michael O'Driscoll, Member-at-Large Saari Vijette, Member-at-Large Daniel Derksen, M.D, UA-Center for Rural Health Carol Lewis, MA, Member-at-Large Sally Reel, PhD, Member-at-Large Will Humble, Member-at-Large Jacob Jones-Martinez, J.D. , Member-at-Large
Delta Omega	Officers: Breanna Lott Amanda Lott Mario Trejo
Canyon Ranch Prevention Center	Organizational Advisors: Primavera Foundation: Alonzo Morado, Beth Carey; YWCA Southern Arizona: Imelda Esquer, Kerri Lopez-Howell Estes Elementary in Marana, AZ Dietz K-8 School (Tucson Unified School District) Prince Elementary School (Amphitheater School District)
College's Community Advisory Board	<u>Community Members</u> Kim Bourn Allison Duffy Skeif Jan Konstanty David McEvoy Lupita Murrilo Alberto Piña Moore JoAnne Westcott Amy Zuckerman Mel Zuckerman Nicole Zuckerman-Morris <u>Public Health Colleagues</u> Cara Crist, Director Arizona Department of Health Services Robert Guerrero, Director Arizona Department of Health, Office of Border Health Will Humble, President Arizona Public Health Association

2) Describe how the school engages external constituents in regular assessment of the content and currency of public health curricula and their relevance to current practice and future directions.

The College's centers and initiatives have advisory boards and community partners who meet regularly to discuss their work and provide information that is relevant to the effectiveness of the College. They provide input on knowledge gaps and new directions to be pursued. The advisory boards for the Arizona Prevention Research Center, the Center for Rural Health, and the Western Region Public Health Training Center along with the College's Community Advisory Board all meet regularly with College faculty and

administrators to provide input on the educational needs for the current and future public health workforce. Our Alpha Nu Chapter of Delta Omega is another avenue for which input can be provided to the college of curriculum. Additionally, the college conducts surveys of the alumni and works with employers to obtain information on how our academic training has prepared students for the workforce.

Faculty members have also met with the Arizona Local Health Officers Association (the directors of the county health departments) and have regular meetings with health departments. MEZCOPH is currently working to create an academic health department with the Pima County Health Department and hired a specific coordinator to assist with this initiative.

MEZCOPH also has extensive relationships with the public health community through its adjunct faculty. Each department has adjunct faculty members who contribute their skills and expertise as well as their understanding of community needs and provide regular input into college courses and activities in the community.

Given the reality that public health is implemented in communities, MEZCOPH also utilizes guest lecturers from the community in many of its courses. This includes county health department directors, local politicians, state legislators, congressional representatives, non-governmental groups, community development/community mobilizers, community health center directors, community health workers, etc. Additionally, one of our faculty members, Dr. Heather Carter, is currently the State Senator from Legislative District 15 (North Phoenix, Scottsdale and Cave Creek) and is chair of the senate's Higher Education and Workforce Development committee, vice-chair of the Health and Human Services Committee and sits on the Senate Appropriations Committee. She provides continuous input to the college regarding issues related to public health policy and programs that are integrated into our curriculum. The undergraduate and MPH internship programs also provide numerous opportunities for feedback from the community through their evaluations of student performance. Finally, our service learning courses provide a mechanism for regular dialogue and communication with our community partners in rural, urban, tribal, and border underserved communities throughout the region.

3) Describe how the school's external partners contribute to the ongoing operations of the school. At a minimum, this discussion should include community engagement in the following:

a) Development of the vision, mission, values, goals and evaluation measures

Our recent revision of the college's mission to focus on wellness was undertaken with input from our community advisory board (CAB) that includes a member from the Arizona Department of Health Services, business leaders and socially conscious individuals. The CAB is regularly given updates on initiatives and provides feedback on what are important outcomes measures. They are given our Dean's monthly updates and are included in our listservs.

b) Development of the self-study document

The college's self-study team included 2 community members, Julia Flannery from the Pima County Health Department and the Robert Ojeda from the Community Food Bank of Southern Arizona. Both of these individuals have worked with faculty and students from the College. An early draft of our self-study was also distributed to our Community Advisory Board, other community members, and faculty for feedback with instructions to focus on specific areas related to them (Example email in **ERF A1.1**).

c) Assessment of changing practice and research needs

We continually obtain feedback from community members through alumni surveys with students who are now our community partners, from our community advisory boards, and from needs assessments regarding the training needs of the workforce. These partners provide input through their participation on specific service and research projects. Community partners have been instrumental with having us modify the teaching agenda focus on our service learning in order to give students more opportunities to work with community members. They have encouraged us to develop our One Health MPH concentration and Maricopa County provides financial support for our SAFER program that conducts rapid response investigations of food borne illnesses.

We also collaborate closely with community-based organizations as they provide us funding for both practice and research. The State Health Office provides the financial support to MEZCOPH in order for us to operate the State's tobacco quit line and to conduct literature reviews to assess the level of evidence on for which health conditions could qualify for obtaining a medical marijuana prescription.

We work with community members to determine how to better meet the public health leadership needs within our border region and within our HRSA region. This ongoing effort has led to many different collaborations related to practice and research. The US-Mexico Border Health Commission has worked with the MECOPH to develop the Leaders Across Borders Certificate Program.

d) Assessment of school graduates' ability to perform competencies in an employment setting

Data for this section of the report was obtained by the MEZCOPH Alumni Database maintained by the Office of Student Services and Alumni Affairs to determine the level of preparedness that MEZCOPH graduates exhibit when starting their careers in the public health workforce. Student interns identified the top ten employers of alumni who graduated between May 2016 and May 2018. Participants were required to have supervised or employed graduates of the MEZCOPH Bachelor of Science, Master of Public Health, Master of Science, or Doctor of Public Health program(s).

The College contacted employers by phone and e-mail and invited employers to complete a short interview by phone or e-mail. Interview questions were both qualitative and quantitative. Interns inputted results from the interview into Qualtrics during or immediately following the interview. Employers self-identified the type of organization they represented, choosing one of the following options; "state or local health department," "university," "foundation/ nonprofit, non-governmental agency," "health provider," or "other." Employers used a Likert scale to rate how competent they felt MEZCOPH graduates were in performing the program's foundational competencies in an employment setting and how prepared they felt graduates were for positions assumed in the organization. When employers supervised graduates with differing degrees, for example, MPH and BS, employers completed one survey for each education level of the employees (as opposed to one survey for each employee). Employers were asked to answer two open-ended questions "Is the employee competent to do their job? Please explain." and "What skills can be improved by graduates in the workforce?"

After data were collected, quantitative questions were measured by both frequencies and percentages. Content analysis of qualitative questions was used to identify emerging competency level themes. Quantitative and qualitative results will be used to inform the development of curriculum to meet the growing public health workforce needs.

The employer survey included 31 supervisors who had hired undergraduate and graduate students. Eighteen of these supervisors were at universities, seven were at local and state health offices, five were at private non-profit agency and one was another type of health provider. Most of these supervisors had hired an undergraduate student (15), and MPH students (13), only two had hired DrPH students. We report the findings from those who had hired our undergraduate and MPH alumni.

All the employers stated that the undergraduate students were working competently in their position. Most employers believed that the students were competent with their ability to communicate public health information in both oral and written forms through a variety of media and to diverse audiences and were competent with their ability to locate, use, evaluate and synthesize public health information (**Table F2**). Comments from the supervisors included statements such as "excellent interpersonal skills", "deep awareness of local, national and global health issues and disparities" and "great data analysis skills to connect to broader trends." Recommendations on what could be improved with regards to preparing students included having them be more prepared as public speakers and greater experience working with communities.

Table F2. **Employers reported competency of undergraduate alumni**

Competency (n= # Employers)	Very Competent (%)	Competent (%)	Somewhat Competent or Not Competent (%)	Not Applicable (%)
Ability to communicate public health information (n=14)	80%	13.33%	0%	6.67%
Ability to locate, use, evaluate public health information (n= 15)	60%	33.33%	6.67%	0%
	Extremely Prepared (%)	**Very / Well Prepared (%)**	**Somewhat Prepared (%)**	
How prepared was the student for their position (n= 15)	46.67%	46.66%	6.67%	

All 31 employers interviewed believed that the MPH students that they hired were competent in their current position and competent in their public health skills. Quantitative feedback regarding specific competencies is provided in **Table F3**. Comments from the supervisors included statements such as "very good at accessing resources to take on new responsibilities", "committed to public health," "very articulate in the public health scope of practice," "understand the stakeholders who have to be involved with our organization to carry out our mission," and "excellent interpersonal skills essential to collaborative programming success." Recommendations on what could be improved with regards to preparing students included training all students on R programming and greater understanding of coalition development.

Table F3. Employers reported competency of MPH alumni

Competency (n= # Employers)*	Very Competent (%)	Competent (%)	Somewhat Competent or Not Competent (%)	Not Applicable (%)
Applying evidence-based approaches to public health through analyzing quantitative and qualitative data as appropriate and determine results of the data analyses (n=11)	53.85%	23.08%	7.69%	15.38%
Understanding the organization structure and function of health care, public health care systems, understanding the why structural bias and social inequalities can undermine health and create challenges to achieving health equity (n=10)	53.85%	7.69%	15.38%	23.08%
Planning and management to promote health including basic principles of building and resource management, assessing organizations needs and assets and methods to evaluate public health programs. (n=10)	61.54%	7.69%	7.69%	23.08%

Competency (n= # Employers)*	Very Competent (%)	Competent (%)	Somewhat Competent or Not Competent (%)	Not Applicable (%)
Discuss multiple dimensions of policy making process, proposing strategies to identify stakeholders and build coalitions of partners and advocate for political social, or economic policies that will improve health of diverse populations (n=10)	46.15%	23.08%	7.69%	23.08%
Leadership skills (n=12)	53.85%	30.77%	7.69%	7.69%
Communicate audience-appropriate public health content both in writing and through oral presentation (n=12)	69.23%	15.38%	7.69%	7.69%
Ability to perform effectively on interprofessional teams (n=13)	69.23%	23.08%	7.69%	0%
Ability to apply systems thinking tools to public health issues (n=13)	30.77%	53.85%	7.69%	7.69%
	Extremely Prepared (%)	**Very / Well Prepared (%)**	**Moderately Prepared (%)**	**Slightly Prepared (%)**
How prepared was the student for their position (n=13)	61.54%	15.38%	7.69%	15.38%

* responses do not include those who reported not applicable for their current position.

4) Provide documentation (eg, minutes, notes, committee reports, etc.) of external contribution in at least two of the areas noted in documentation request 3.

Area 1 (Section 3c): With regards to how community partners assess our practices, in the Community Advisory Board minutes (**ERF A1.1**) dated September 26, 2017, there was a presentation by Dr. Velia-Nuño regarding the Nurtured Heart Approach and her Growing Girls program. An assessment by the board identified this area of wellness as a gap within our college and led to the effort to incorporate this work into the undergraduate academic curriculum. We now have implemented four special topics courses that are developed so they can be incorporated into an undergraduate emphasis area.

Another example of how external partners were involved with MEZCOPH's assessment of outreach is provided in a manuscript by Hirata-Okamoto et al (2017) on the Leaders Across Border Certificate which was conducted in conjunction with the US-Mexico Border Health Commission and the Arizona Department of Health Services to develop better leadership for public health practice. This document identified how MEZCOPH helped meet the need for a leadership program.

Area 2 (Section 3d): An assessment by the employers of graduate readiness for the workforce was developed from the list of top employers of our new graduates is provided in **ERF F3.1**. This is the list that was used to develop **Table F2** and **Table F3** on the readiness of our graduates when they entered the workforce.

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

F2. STUDENT INVOLVEMENT IN COMMUNITY AND PROFESSIONAL SERVICE

F2. Student Involvement in Community and Professional Service

Community and professional service opportunities, in addition to those used to satisfy Criterion D4, are available to all students. Experiences should help students to gain an understanding of the contexts in which public health work is performed outside of an academic setting and the importance of learning and contributing to professional advancement in the field.

1) Describe how students are introduced to service, community engagement and professional development activities and how they are encouraged to participate.

Students are introduced to service opportunities starting with their orientation to the College. Our orientation for new graduate students each fall has included service learning projects at the Community Food Bank of Southern Arizona (2014), Living Streets Alliance that promotes physical activity (2015), Iskashitaa that promotes nutrition for refugees (2016), and at the Primavera Foundation that provides opportunities to get families out of poverty with housing and workforce development programs (2017). In 2018 students were provided a presentation on Community Engagement in Research –Community Academic Collaboration" instead of a service activity. In 2019, students worked with Casa Alitas that serves migrant families who have left their home countries to escape violence and poverty.

All of our undergraduate students take the require course HPS 387 Health Disparities and Minority Health. Every student in this class is required to participate in service activities that are part of the course. Students in one section each year for HPS 200 Introduction to Public Health also volunteer in the community as a course requirement. These are prior to their practicum. There are also several other community-based undergraduate and graduate special topics courses that incorporate a service component. For example, these courses have included working with students and faculty in schools on issues such as sun safety, asthma and personal growth.

Additionally, we have a series of one-week intensive 3-unit service learning courses that provide students the opportunity to work with community members rural and urban environments, at the state legislature and with tribal organizations. **The Service Learning Program** is one of the distinguishing characteristics of our College as it relates to community engagement, practice and service. Service learning is a vehicle for strengthening partnerships between health professions schools and communities. It is building a strong commitment to community service and social responsibility in health professions schools, students and faculty, and is equipping health professionals with community-oriented competencies necessary to practice in today's changing world. All service learning courses include specific service learning activities that are accompanied by structured individual and group reflection. We have developed five service learning courses, utilizing an intensive week-long model which immersed students, faculty and community partners directly in communities which are facing huge health disparity issues; together we implemented programs that directly supported community efforts to address these disparities. Each service activity is structured around reflection questions which provide the framework for understanding the role of public health in the elimination of health disparities:

- *Border Health Service Learning Institute*, on an annual basis works directly in our border communities with county health departments in Arizona and Sonora, Mexico to support community prevention education campaigns focusing on dengue, west Nile, rabies, and TB. Additionally, students work with nongovernmental organizations to support local community gardens, food kitchens, and community health worker outreach in the community.
- *Maternal and Child Health Programs in the Rural Southwest*, on an annual basis works directly with tribal communities to support the community health representative program, learning about the model and providing workshops for health education material development both on paper and electronically.
- *Maternal and Child Health Programs in Urban settings*, on an annual basis works directly with organizations serving marginalized populations including the homeless, refugees, urban Indians, and inner-city Latinos/as to enhance their program services and provide new activities and materials for program development.
- *Rural Health Service Learning Institute* focuses on copper mining and farming communities in our state and partners with local health departments, county extension programs, rural tribal health

departments, and local non-governmental agencies to support additional programmatic opportunities for the agencies and the populations that they serve.
- *Phoenix Urban Populations* is our newest Service Learning Course with a focus on marginalized populations in the Phoenix area. The course works focuses directly on unique partnerships that enhance quality of life in the Phoenix community including veteran's organizations, community mobilization organizations, Latino Arts organizations, and others.

In the past two years we have added several other service learning courses, examples are:

- Public Health for Community Wellness. This semester-length course is offered fall and spring semesters annually. In this course, students develop skills in wellness assessments and lifestyle interventions, gain insights into population health and health disparities through the lens of social determinants of health, and build community relationships for further work such as internships.
- Maternal and Child Health in Urban Settings. This course works directly with organizations serving marginalized populations including the homeless, refugees, urban Indians, and inner-city Latinos/as to enhance their program services and provide new activities and materials for program development. Whether you have lived in Tucson all your life or are newly transplanted, this course will immerse you in Pima County agencies that serve the public health needs of children and families.
- Community-Action-Policy. This is a semester-length class that meets five times, along with a one-week immersion experience at the Arizona State Legislature during Spring Break. The service-learning portion of the course is a structured learning experience that combines community service with explicit learning objectives, preparation, and reflection. Students involved in service-learning are expected not only to provide direct community service but also to learn about the context in which the service is provided, the connection between the service and their academic coursework, and their roles as citizens.

In addition to this intensive week-long model of service learning, we also have a semester-long service learning core course focusing on Program Planning and Evaluation in which students work directly with a community organization to collaborate on products related to program planning and/or evaluation for the organization. Most recently several of our faculty have incorporated some service learning opportunities for their students as a component of the sociocultural and behavioral aspects of public health in which students work in teams with specific community organizations to enhance the work of the organization. Reflection questions relate directly to understanding the sociocultural and behavioral aspects of the particular activity or program.

The Center for Indigenous Environmental Health Research (CIEHR) is partnering with American Indian and Alaska Native (AI/AN) communities to build capacity to determine the contribution of chemical and other environmental exposures to health inequities and support efforts to address these threats. AI/AN communities suffer from increased mortality attributable to cancer (stomach, gallbladder, liver and kidney), respiratory disease, diabetes, and liver disease, among other conditions. Chemically contaminated traditional foods, water, air, and household environments, as well as social determinants of health, contribute to these health disparities and stand out as modifiable factors for AI/AN communities. Employing community-based participatory research approaches, these partnerships are critical to the development of effective and sustainable mitigation strategies that reinforce community strengths and resilience factors (e.g., social networks, spirituality and shared cultural identity and connection). CIEHR also supports efforts to increase environmental health literacy and help translate and disseminate the research findings needed to inform community strategies to reduce adverse environmental exposures.

2) Provide examples of professional and community service opportunities in which public health students have participated in the last three years.

We work closely with local health departments in addition to its focus on national and international public health issues. We have numerous projects that provide students service opportunities and these are described below.

As a College of Public Health located in the U.S.-Mexico Border region, we have always considered border health among the top priorities of our College. It provides the opportunity for binational collaboration on

the shared public health agendas of both of our countries to strengthen the public health infrastructure in the border region. We have a vast array of projects and collaborations, including: 1) Thematic Network in Border Health. The College is a member of this network, which is the binational academic network along the US Mexico border. This network is a multidisciplinary, interagency, and bi-national initiative of individuals and organizations from academic, public, private and social sector of the Mexico-US border, promoted by the Mexico Section of the Mexico-US Border Health Commission (known in Spanish as CSFMEU). It is responsible for contributing to the resolution of the most common challenges of public health challenging the Mexico- US border. 2) Health Promotion Model for Migrant Agricultural Workers from Southern Mexico Farmworker Project: This project is focused on identifying the essential characteristics of a model of health promoters to strengthen the health of migrant agricultural workers who are migrating from Southern Mexico to Northern Mexico to work in the large fruit and vegetable farms in Sonora. The project includes developing an appropriate training curriculum for workers at the work site and in their home communities with active participation of the agricultural company and institutions that can implement public policies supporting migrant farmworkers as well as understanding the impact of the health promotor program on the well-being of the workers. 3) Leaders Across Borders: Our College has developed and implemented a unique public health workforce program that collaborates with public health leaders from the border states in the U.S. and Mexico to develop a set of skills for collaborate on binational public health issues. The Leadership program accepts 20 public health workers who participate in a yearlong program with three face to face workshops and develop a team project around an important binational public health issue.

"Juntos Por Salud" (Together for Health) Primary Prevention Mobile Unit (video link: https://youtu.be/3TRGqwasV0s) provides free preventive health screening assessments (e.g. Blood Pressure, Blood Sugar, Hemoglobin A1c, etc.) and access to health services to underserved populations by targeting key priority issues such as nutrition, obesity, diabetes, mental health, and domestic violence, to name a few. With units in Tucson and Phoenix serving Pima, Santa Cruz, Pinal and Maricopa counties, the program aims to promote healthy lifestyle choices and utilizes culturally and sensitively created materials and workshops for understanding the complex medical and social issues faced by medically underserved communities in our state. Our mobile health units are run by program coordinators and health education professionals in addition to student volunteers from all UA Health Sciences colleges (Public Health, Nursing, Medicine, and Pharmacy). Most recently, the UA College of Public Health's Community Advisory Board has partnered with local Walgreens in an effort to promote awareness of the mobile health unit and its programs by offering the flu vaccine and wellness events ahead of flu season to businesses in our community. Our first event this past September was very well attend with 60 participants receiving flu vaccines and 30+ also receiving other wellness checks that included BMI, blood pressure and glucose checks. This event allowed us to serve a community not typically targeted by our mobile health unit and raise awareness of its services and programs.

Albuterol in Schools – Professor Lynn Gerald is an internationally recognized researcher in the field of school-based asthma research. Dr. Gerald along with her students conducted a pilot program in the Tucson and Sunnyside unified school districts in 2014 to study the effects of having inhalers stocked in schools. During the program's first year, school health administrators used stock inhalers on 222 asthma attacks. Ambulance transportation fell 40 percent, and 911 calls fell 20 percent. Based on these data, Dr. Gerald recruited Pima County Health authorities and local advocacy groups interested in respiratory health and together they contacted members of the Arizona House of Representatives. Her team had interviewed with dozens of legislators, school organizations and school districts. This led to the recent (2018) approval of House Bill 2208 by the Arizona Legislature. The legislation ensures that bronchodilator therapy can be safely provided to students having asthma attacks at schools throughout Arizona. In addition, Professor Gerald with funding from the National Heart Lung and Blood Institute worked to promote community empowerment collaborations to reduce childhood asthma disparities among in the Navajo Nation. Although the Nation is served by the Indian Health Service, its population is dispersed in 27,000 square miles of territory in 3 States. In this situation, the only feasible strategy to treat chronic childhood disease such as asthma is to empower local communities with knowledge about the disease and with instruments to prevent and treat acute exacerbations. Lynn and her collaborators at National Jewish partnered with Navajo Nation authorities and Navajo health professionals. They participated in dozens of meetings with most of the more than 100 local Nation Chapters.

Partnership with Pima Animal Care Center (PACC) – The College and the Pima Animal Care Center (PACC) have formed a partnership to allow graduate students to participate in research projects at the animal shelter as part of their One Health program coursework. The core concept of the One Health approach is that multiple disciplines collaborate at the local, national and international level to improve the health of humans, animals and the environment. This course teaches students about the complex relationships between humans, animals, and the environment for everything from infectious diseases to the importance of the human-animal interaction in various aspects of health and well-being. This partnership will expose students to a new paradigm of animal and human welfare. It also fulfills the mission of our college to work hand-in-hand with the community to address important public health issues.

The Canyon Ranch Center for Prevention and Health Promotion is dedicated to helping people achieve and maintain healthy lives by providing a variety of opportunities that facilitate and support growth toward health and well-being. The center has partnered with local health service providers, other colleges within the university, and faith-based organizations to deliver quality health education in the area of diet, physical activity and obesity prevention. The goal of the CRCPHP is to promote health and wellness in the greater Tucson area, thus establishing Tucson as the center of wellness for the U.S. The Center recently implemented an evidence based, comprehensive school obesity prevention program that began this fall 2018 academic year in Tucson, Arizona schools – *Project Healthy Schools (PHS)*. *PHS* has five main goals of dissemination and implementation to school age children. 1) Eat more fruits and vegetables, 2) Choose less sugary foods and beverages, 3) Eat less fast and fatty food, 4) Be active every day, and 5) Spend less time in front of a screen. *Project Healthy Schools* has been adapted and implemented at Saints Peter and Paul School by our Service Based Learning Students. *PHS* is designed to also work with the parents and guardians of the students to help establish a healthy lifestyle for the entire family. *The Healthy 2B Me Wellness Camp* is designed for kids in grades 2-5. *The Healthy 2B Me* camp recently completed its 6th year of service to underserved children in Tucson. Over 300 youth age 7-11 years have participated in the camp since 2013. Most participants live below the poverty line. Activities are designed to engage children to learn about wellness, including nutrition, cooking, swimming and a variety of physical activities. This past summer nearly 60 children participated in our 4 week-long sessions. In 2018, we continued our collaboration with a local elementary school as part of their summer school curriculum, which serves children primarily from the Middle East and Africa. We have been able to tailor the camp curriculum to meet the public health needs expressed by the school community including additional support in pedestrian safety, personal hygiene and health communication. In addition, 12 children from Nogales, AZ participated in *Healthy 2B Me*, exposing these children to curriculum not available in Santa Cruz County. Thematic days included nutrition and physical activity, germs and hygiene, sun safety, tobacco prevention, and kindness. Community support has been tremendous with scholarships covering all of the participants' cost. *The Girls Club school-based bullying prevention program* is closely looking into bullying among adolescent girls – an important public health challenge. Of particular concern is a distinct form of bullying known as relational aggression. Relationally aggressive girls can give dirty looks, pass cruel notes, and spread hurtful rumors. Behaviors are often unrecognized as bullying, or are dismissed as typical female behavior. It has the potential to negatively affect academic performance and mental health. These consequences are not limited to the victim, but also include the bully. The program's goal is to reduce risk factors for high risk behaviors, reduce bully victimization and promote protective factors among fifth and sixth grade girls involved in the Girls Club, an after-school program. The Girls Club meets annually from September to April on Mondays for two hours. We are in our sixth year of delivering the Girls Club program at Estes Elementary School in Marana. On average 35 girls in grades five and six enroll each year. We bring the students to the University for a field trip every year. MPH students serve as Group Leaders under the direction of Dr. Velia Nuno, the director of the MCH concentration. The program applies a pre-post design whereby pre-test measures gathered via a survey were collected before the program, and post-test measures are planned for March of every year. Parents are included as part of the evaluation process at the end of the program. This successful community-based program attests to the strong established partnership between the community and the College. New this year is the revision of the "development" lessons.

Partnership with Navajo Nation – This project involved working with the Navajo Nation on assessing exposure and risk perceptions following the Gold King Mine spill in August 2015. The mine leaked three million gallons of polluted water into a tributary of the Animas River in Colorado. The water traveled into the San Juan and Colorado rivers, flowing along the borders of 12 Native American Tribes. Dr. Paloma Beamer, associate professor of environmental health, and Dr. Karletta Chief, a Navajo hydrologist and

associate professor in the Department of Soil, Water and Environmental Science, lead a cross-disciplinary team to address tribal questions regarding the impact of the environmental disaster on their communities. A network of Diné community partners from the affected chapters have guided the university researchers in designing and implementing a culturally appropriate study that addresses the community's concerns. A key focus has been on building capacity for assessing environmental exposures through training of Diné tribal college students, environmental interns, and community health representatives. To date more than 85 students (half Diné) and 25 community members have collaborated and participated in data collection, interpretation, and dissemination. During 2018, the team has focused on dissemination of results, addressing farmers concerns, and community empowerment through development of citizen science protocols. Results have been circulated through several teach-ins, radio forums and most recently and Executive Education Session on Emergency Response for senior Navajo Leadership. The team has partnered with several Navajo farmers to monitor their water, soil, and corn over the growing season. Data has been collected by teams of Diné College interns and Navajo Community Health Representatives. Reflecting on the experience one student noted, "The field work experience, collecting river and irrigation samples, testing the samples, starting the data input process has been most informative, I've definitely learned so many new things this past week and I'm exiting and looking forward to many more years of expanding my knowledge and gaining more life experiences. This is just the tip of the iceberg. I would like to thank the University of Arizona team and the Diné College, our mentors for giving me this incredible opportunity. The experience is one I will not forget." Diné College Intern.

Center for Rural Health (CRH): The Arizona Center for Rural Health (AzCRH) serves Arizona through its core mission to improve the health and wellness of rural and underserved Arizona populations. Chartered as the Rural Health Office in 1982 with an ongoing state appropriation, it was designated as the Center for Rural Health in 2011, receiving the National Rural Health Association's Outstanding Rural Health Organization Award in 2013. AzCRH houses programs and initiatives funded by state, federal, and foundation sources. Daniel Derksen, M.D., is the Walter H. Pearce Endowed Chair and Director of AzCRH. Programs and Initiatives Housed in AzCRH: 1) The Arizona State Office of Rural Health (AzSORH) has been continuously funded since 1990 under the authority of federal and state legislation and 1:3 federal: state matched funding. MEZCOPH is one of just two U.S. colleges of public health housing a State Office of Rural Health. AzSORH collects and disseminates rural health information, coordinates rural health activities in the state, provides technical assistance to rural communities and entities providing rural health services including federally designated Critical Access Hospitals (CAHs), Rural Health Clinics (RHCs), Indian Health Service and 638 Self Determination clinics, Federally Qualified Health Centers (FQHCs), county health departments, state agencies, and private providers, practices, businesses and others. 2) The Arizona Rural Hospital Flexibility Program (AzFlex) – for over 20 years the Center has worked with Arizona's rural and Critical Access Hospitals. There are currently 15 federally designated CAHs with 17 affiliated Rural Health Clinics in Arizona. AzFlex assists and provides technical assistance in quality, financial and operational improvement, emergency medical services integration, and addressing needs as identified in catchment area health needs assessments – such as opioid overdose, morbidity and mortality. 3) AzCRH collaborates via interagency partnerships with the Arizona Department of Health Services (ADHS) in initiatives funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) and Centers for Disease Control and Prevention (CDC) to address Arizona's opioid epidemic: providing free online continuing medical education (CME) modules through a virtual lecture hall on the appropriate prescribing of controlled substances; training first responders to administer naloxone for opioid overdoses and provide screening, brief intervention and referral for treatment (SBIRT) to get those with opioid use disorder into appropriate treatment; participating in the ADHS Prescription Drug Misuse/Abuse Initiative. 4) AzCRH trains health professions students as certified assisters to help uninsured individuals with health insurance related eligibility questions and enroll in Medicaid (AHCCCS), CHIP (KidsCare) and ACA Marketplace coverage. These efforts have helped Arizona gain coverage, and almost halved Arizona's uninsured rate to 10%. 5) AzCRH administers MEZCOPH's Rural Health Professions Program (RHPP) and Area Health Education Center (AHEC) Scholars Program, and the five service learning courses that provide community-engaged experiences for public health students. 6) AzCRH convenes annual statewide meetings attended by over 300 participants. In July, 2018 it held the 45th Annual Rural Health Conference in Flagstaff, AZ and has its Rural and Public Health Policy Conference at the state capitol during the legislative session each January.

Arizona Smoker's Helpline (ASHLine): The Arizona Smokers' Helpline (ASHLine) is one of over 50 quit lines across the United States. Established in 1995, it is also one of the oldest and most seasoned quit

lines in existence. As a member of the North American Quit line Consortium, ASHLine is actively engaged in collaborations, research, evaluation and quality improvement to assure all Arizonans have access to high quality, evidence-based tobacco cessation services and support. Nationally, quit rates reported among North American quit lines vary, averaging around 30%. The Arizona Smokers' Helpline (ASHLine) has been helping people quit tobacco since its inception in 1995. ASHLine is a comprehensive quit line, offering free telephone (both reactive and proactive) and web-based quit services and four to twelve weeks Nicotine Replacement Therapy (NRT). In addition, ASHLine has fax and electronic provider referral program and provides free training and technical assistance to healthcare providers and community partners statewide. We just recently signed an agreement with the Arizona Department of Health Services to develop a Tobacco Cessation Center that will include a tobacco cessation training institute in addition to ASHLine services.

Partnering with Skilled nursing facilities to address antibiotic resistance: Dr. Katherine Ellingson, assistant professor of epidemiology at MEZCOPH and her team are partnering with skilled nursing facilities in Arizona to develop an antibiotic stewardship program, or "playbook," for prescribing antibiotics to treat infectious diseases. Skilled nursing facility residents are at heightened risk for acquiring antibiotic-resistant infections, including pathogens recently dubbed "nightmare bacteria" by the CDC. Residents are also at higher risk for antibiotic-associated adverse events like Clostridium difficile, commonly known as C. diff. Symptoms can range from diarrhea to a dangerous and potentially fatal inflammation of the colon. In 2016, the Centers for Medicare and Medicaid Services instituted a requirement for all U.S. skilled nursing facilities to implement an antibiotic stewardship program (ASP) by November 2017 as a condition of reimbursement. However, a recent survey found only a quarter of Arizona skilled nursing facilities reported any preparation for ASP implementation. The main goal is to rigorously evaluate implementation of this protocol in 16 Arizona skilled nursing facilities with an eye toward developing a playbook for stewardship that can be feasibly implemented in these unique and resource-limited settings.

Western Regional Public Health Training Center (WRPHTC) provides and monitors need-based trainings for current and future public health professionals. The WRPHTC recorded more than 43,000 registrations for their courses during the past fiscal year. In 2018, the Western Region Public Health Training Center (WRPHTC) received continuation funds to support the HRSA Region 9. The WRHTC has recently leveraged its eight-year history of training the public health workforce to develop a training in collaboration with the CDC on Legionella for public health workers and facility management personnel who oversee the water systems in hotels, health care facilities and other industrial facilities.
Each year the WRPHTC provides stipends for students to participate in community-based internships. These internships take place with government and non-governmental agencies. Examples of specific locations have included the Children's Medical Center, Arizona Department of Health Services Office of Border Health, the Desert Senita Community Health Center, Tucson Medical Center's Outpatient Breastfeeding Clinic, Ministry of Health for the Federated States of Micronesia, El Rio Community Health Center, and the Mohave County Health Department. Students develop short video presentations of their experiences and can be viewed on the WRPHTC Website.

The WRPHTC has also acquired a 3-year grant to support 120 nurses to become certified Forensic Sexual Assault Nurse Examiners (SANEs). This grant has 3 parts: (1) providing the technical training to nurses to conduct the exams, collect forensic evidence and make the appropriate referrals for victims, (2) develop an application that will provide the SANEs with the emotional support that is required for health professionals who are exposed to traumatic events to improve their mental health and to help retain qualified SANEs, and (3) to have SANEs become community educators to inform students and other community members about sexual assault in hopes that we can have a small impact on prevention and to have more women feel comfortable about coming forward to report sexual assaults. This timely outreach program is another avenue in which MEZCOPH is working with community-level professionals to meet gaps in health care needs. The SANE program will provide opportunities for students to help develop education materials for nurses and to work with various Sexual Assault Response Teams (SARTs) in the state.

Arizona Prevention Research Center (AzPRC): The AzPRC partners with communities to improve the health and well-being of people living in the U.S.-Mexico Border states through research, training, advocacy and policy change. The AzPRC houses diverse programs and activities that use community-based participatory action research to focus on the prevention of chronic disease in the border region. Together with partner community health centers, grassroots agencies and county health

departments, the AzPRC developed the now evidence-based Community Health Worker Prevention Curriculum "*Pasos Adelante"* (Steps Forward) to encourage healthy behaviors as well as "*Acción para la Salud"*, a curriculum guide designed to train CHWs to engage community members in policy change to address community health. The AzPRC formed and coordinates a coalition of 250 organizations that serves as the catalyst for recognition and sustainability of community health workers throughout the state through legislative and foundation initiatives. The coalition successfully advocated for CHW Voluntary Certification in Arizona, which was signed into law in April, 2018.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

F3. ASSESSMENT OF THE COMMUNITY'S PROFESSIONAL DEVELOPMENT NEEDS

F3. Assessment of the Community's Professional Development Needs

The school periodically assesses the professional development needs of individuals currently serving public health functions in its self-defined priority community or communities.

1) Define the school's professional community or communities of interest and the rationale for this choice.

The primary geographic focus on workforce development is Arizona, including Tribal Health Departments. Additionally, the Western Region Public Health Training Center continually assesses professional development for the health departments for HRSA Region 9 (Arizona, Nevada, California, Hawaii and the US Associated Pacific Islands). As the central office for the WRPHTC, the College works with partners in each jurisdiction to carry out needs assessments and to provide continuing education programs. For This focus is in line with our college's mission.

2) Describe how the school periodically assesses the professional development needs of its priority community or communities, and provide summary results of these assessments. Describe how often assessment occurs.

The Western Region Public Health Training Center has conducted numerous needs assessments in collaboration with its partners. Within HRSA Region 9 using its Public Health Core Competency Self-Assessment and Training Preferences Survey (PHCCSTPS). The timing of these assessments is an iterative process that is based on being asked by health departments to support their workforce development. This survey assesses the strengths and weaknesses of state, county, and tribal health departments' workforce. This needs assessment survey, as its name suggests, includes training preferences questions and a self-assessment of public health core competencies as identified by the Public Health Foundation.

The survey was first utilized by three Arizona county health departments prior to the project start in September 2014. Beginning in 2015, the survey was programmed into and administered using Qualtrics. The Central Office evaluator writes up an individualized analysis report for each local health department that distributes the survey, to provide a framework for them to develop or revise existing workforce development plans.

Initial Assessments

Nineteen (19) Training Needs Assessments were conducted within state, county, and tribal health departments in Arizona, California, and Nevada using the PHCCSTPS, with a total of 2,383 respondents during between 2013 and 2018. Each health department was presented with a written report of their findings.

In Arizona, 14 assessments were completed in Arizona with a total of 1,616 respondents. This included eight county health departments (Apache, Cochise, Gila, Mohave, Navajo, Pima, Pinal, and Yuma), two tribal health departments (Navajo Nation and Pasqua Yaqui), one IHS facility (Chinle Service Unit), and the state health department (Arizona Department of Health Services). Two of these county HDs have repeated the survey twice, and one has completed it thrice to analyze their workforce development needs. Among the Arizona public health workforce, the need for trainings is greatest in the areas of public health sciences, financial planning and management, and analysis and assessment.

In Nevada, a comprehensive analysis report for the 526 assessments they received from distributing the PHCCSTPS. As with Arizona, the analysis indicated that the need for training was greatest in the areas of public health sciences, financial planning and management, and analysis and assessment. The needs assessment findings were disseminated to Nevada's health jurisdictions and meetings were conducted with each jurisdiction to identify and arrange provision of the trainings most needed.

In California, a modified PHCCSTPS was sent to California's 60 public health officers for approval. In the second and third years of the grant, the health departments in the California counties of Mariposa, Shasta,

and Tuolumne were surveyed. Individual analysis reports based on 125 total responses were written and provided to the respective county health departments by the Central Office.

In Hawaii, the WRPHTC supported the Hawaii Public Health Training Hui to conduct a separate needs assessment survey. This survey was used in 2012 and again in 2015, with the addition of some questions from the AzPHTC's PHCCSTPS. HiPHTH also assessed the need for additional training topics, by surveying attendees after each training. The top training topics identified included: a) leadership, b) recovery from mental illness and substance use, c) opioid use and control, d) mental health issues, and e) use of motivation. Strategic skills from the de Beaumont Foundation's "A Call to Action" were considered for the training topics planned in 2018.**):** The 2015 survey described above was distributed to 1,693 PHPs via a Community Partnership listserv and received 509 responses (~30% rate). The responses from this survey indicated that the highest-ranking competency areas were 1) Community Dimensions of Practice, 2) Health Communication and Informatics, 3) Leadership and Systems Thinking, and 4) Cultural Competency. These results were used to develop monthly training schedules from 2016-2018. During project year 3 and 4, at least three trainings were presented in Hawai'i for each of the four competency domains.

In the USAPI, the results of their needs assessment showed a strong desire for continuing professional development (CPD) and for accredited trainings leading to recognized degrees and certificates. The identified training areas included public health science skills related to epidemiology in the areas of data collection and assessment, and specifically related to non-communicable diseases (NCDs).

During the fourth project year and in the wake of the highly successful Certificate of Professional Practice in the Epidemiology and Control of Non-Communicable Diseases, the PIPHTC undertook a survey of key stakeholders and practitioners from across the region to determine what they would like the next certificate program to focus on. Respondents, which included minister and directors of health, public health practitioners, physicians, nurses, and others involved in public health, requested additional training focused on how to develop community- based programs focused on lifestyle change leading to better health, reduced prevalence of risk factors for NCDs, and better management of the current population of NCD patients.

In the past year, three (3) training needs assessments have been conducted within state, county, and tribal health departments in Arizona, California, and Nevada during this project period using the PHCCSTPS, with a total of 81 respondents. These assessments were conducted 1) at an Indian Health Service (IHS) facility in Northern Arizona, 2) at a tribal health department in Southern Arizona, and 3) among the local health officers of California. The latter was completed through the collaboration of the Health Officers Association of California (HOAC), to assess the training needs for California's physician health officers, who are invested with public health authority in California's 58 counties and three city jurisdictions. This self-assessment resulted in a report outlining the training needs of the leadership of California's local health department leadership. This report will be used in the next phase of the project, which will include planning and delivering relevant trainings. A summary of the needs assessments for 11 health departments in Arizona is presented in **ERF F3.2**. These results were distributed to members of the Arizona Local Health Officers Association, the county health department directors and other leadership personnel in State and County Health Departments.

In April 2019, the WRPHTC implemented the second PHCCSTPS with its partner at the University of Nevada, Reno, throughout the state to address statewide workforce competences and training preferences. The WRPHTC has worked with partners statewide to help ensure workplace buy-in of the assessment. On December 14, 2018, WRPHTC met with partners to review and get feedback on survey questions, implementation dates, and marketing plan. Official announcement of the PHCCSTPS will happen on March 19, 2019 at the County Health Rankings meetings. NVPHTC will have representatives in both Northern Nevada and Southern Nevada meetings to announce the assessment and provide an orientation. In addition, Nevada has added questions to their standard training evaluation form to ask about trainings needs. Over summer 2019, WRPHTC will be reviewing PHCCSTPS results and training evaluations for continued improvement of trainings and delivery formats. Additional assessments have been conducted by the WRPHTC's CBT partners to inform training needs and determine training topics. The Hawaii State Rural Health Association (HSRHA) completed an online survey in late 2018 to past

participants of the “Project ECHO Hawaii Behavioral Health and Opioid Misuse and Substance Use Disorders Integrated Series” to inquire what specific specialized skills training topics would be of interested in the future. The findings were used to develop future training curriculum, as well as to identify complementary learning materials (e.g., short videos) that will be utilized to further engage providers and stimulate dialogue during the training sessions, in addition to reinforcing what was taught. Future training topics may include: community resources, addition/substance abuse, dosing/safety, opioid basics, and local opioid control updates. The Arizona Foundation of Human Service Providers (AFHSP) is currently administering a survey to determine the training needs of mid-level managers working in mental health organizations in Arizona. The HOAC similarly has conducted an assessment to determine the topics for the semi-annual Continuing Medical Education training events of the local health officers, which will be focusing on homelessness in spring 2019 and climate change in fall 2019. The Hawaii Public Health Institute (HIPHI) plans to conduct a needs assessment in fall 2019 to develop future trainings.

The WRPHTC supported the Pacific Islands Public Health Training Centre (PIPHTC) to conduct an email-based survey of 125 public health leaders and practitioners, physicians, nurses, and other allied health providers involved in the provision of public health and preventative services in the United States Affiliated Pacific Islands (USAPI) to determine desired continuing professional development training needs for 2019-2020. The survey had a 57% response rate (72 responses). The top four identified areas included: (1) additional trainings in community health and development, with an emphasis on non-communicable diseases such as type 2 diabetes mellitus and obesity; (2) trainings in infectious diseases, such as infection control, outbreak management, and environmental health; (3) public health basics, such as the essential public health functions; and (4) public health law and legislation, such as developing legislative interventions. At this time, the PIPHTC is developing additional trainings dealing with community health and development that focus on non-communicable diseases (NCD).

In Spring/Summer 2019), the WRPHTC conducted a needs assessment with Arizona Council of Human Service Providers (ACHSP) for mental health frontline and supervisors. Results were from 330 frontline mental health providers, 224 supervisors and 127 directors/senior leaders working in private non-profit and for-profit organizations. Preliminary results are **ERF F3.2** (ACHSP Report_Draft). Direct mental health providers identified their greatest rewards were from their relationship with coworkers and clients and the mission of their organizations with their major challenge being salary. These results indicated that the skills supervisors most needed to improve their ability to work effectively were how to communicate effectively, active listening, problem solving, developing employee strengths, conflict management and managing employees of which 45% surveyed indicated that these skills were extremely needed.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

F4. DELIVERY OF PROFESSIONAL DEVELOPMENT OPPORTUNITIES FOR THE WORKFORCE

F4. Delivery of Professional Development Opportunities for the Workforce

The school advances public health by addressing the professional development needs of the current public health workforce, broadly defined, based on assessment activities described in Criterion F3. Professional development offerings can be for-credit or not-for-credit and can be one-time or sustained offerings.

1) Describe the school's process for developing and implementing professional development activities for the workforce and ensuring that these activities align with needs identified in Criterion F3.

The College's workforce development initiatives are aligned with its mission to promoting the health of communities in the southwest and globally with an emphasis on achieving health equity through excellence in education, research and service, by:

- Strengthening the infrastructure of frontline public health organizations with particular emphasis on our state, county and tribal health departments and community health centers.
- Building core competencies (knowledge, skills and abilities) of public health professionals, both discipline specific and interdisciplinary, utilizing a variety of modalities.
- Creating partnerships with state, county and tribal public health services and community-based organizations to assess and address the needs of the workforce.
- Providing education and training opportunities to the wider body of health care professionals, community service providers and community members to disseminate promising practices in public health and foster trans-disciplinary, population-based approaches to promoting healthy communities and addressing health disparities.

Faculty members throughout the College are engaged in professional development opportunities for the workforce. In addition to supporting the academic and public health workforce by presenting at conferences, 29 faculty members have worked directly with organizations to advance workforce development during the past 3 academic years (nearly 50% of all faculty members). These faculty reached 4,988 people and with a cumulative number of 155,466 contact hours. Examples of organizations touched by MEZCOPH faculty include health departments, fire departments, and school districts. Faculty also provide presentations at local, state and national conferences who participants public health practitioners and academics.

MEZCOPH has created an academic health department with Pima County. A joint seminar series has grown out of this relationship that provides opportunities for continuing education to the workforce and the MEZCOPH faculty through shared sessions. We are also supporting similar relationships by supporting the Western Region Academic Health Department (AHD) Summit. We also have conducted trainings school staff to use stock albuterol for children who are having asthma episodes. A HRSA funded project has also allowed MEZCOPH to provide continuing education to nurses so they may become certified sexual assault nurse examiners (SANEs) in collaboration with the International Association of Forensic Nurses. The college also supports a series of conferences and seminars. These include the annual James Dalen Lecture, our annual Social Justice Conference, the Bi-annual Arizona Public Health Association conferences, the Annual Arizona Rural Health Conference. Most recently, MEZCOPH supported a public forum on the public health impact of the current US immigration policy, and the 10th Annual Border Health: Information for Action conference in Nogales, Sonora, Mexico, a two-day conference brought together public health professionals from both sides of the U.S.-Mexico border to share their work, ideas, and explore innovative ways to work together to strengthen binational collaboration in the Arizona-Sonora region.

The college was also home of the Mountain West Preparedness and Emergency Response Learning Center. The learning center was one of 14 serving in a national capacity for preparedness and response training and education needs of the U. S. public health workforce. The learning centers provided unique workforce development needs by offering assistance to nearby state, local, and tribal public health

authorities. The online courses available through the center are still available on our College's Moodle site.

Additionally, workforce development activities occur in strategic fashion by the College's Western Region Public Health Training Center (WRPHTC). It uses results provided from faculty through community presentations, professional presentations and in conjunction with the WRPHTC. Between 2016 and 2018, faculty members provided trainings to The WRPHTC had a total of 138,495 training registrants from the 2,842 trainings provided during between 2014 and 2018. The development of courses is based on the needs assessments that are conducted by the training center and also from national reports of training needs, and input from the training center's advisory board. 65% of the trainings were delivered in the format of a self-paced distance learning course, while 28% were class-room based or in-person conferences and/or workshops, 3% were hybrid courses, and 4% were real-time distance learning courses. The majority of these courses addressed Community Dimensions of Practice skills. The next most common public health core competency skills addressed in our courses included Public Health Sciences skills, Analytical and Assessment skills, and Communication skills. These courses targeted Tier 1 public health professionals (70%) and Tier 2 managers and supervisors (26%).

In Arizona, courses had a total of 91,997 registrants for 1900 training courses. 154 of these courses were approved for Continuing Education credit. There were 47 in-person workshops (1,409 Public Health Providers (PHPs)) on topics including Public Health Essentials in Action, Meeting Facilitation, Parent Ambassadors, and Mindfulness. Also, two of these in-person trainings consisted of series for tribal public health workers on program planning and evaluation, policy and advocacy, and creating a program budget.

14 live-streamed webinars (1,250 PHPs) were recorded and archived on a variety of topics within our content area of nutrition, physical activity, and obesity. These included webinars on policies for obesity prevention, breastfeeding in Mexico, dynamic energy balance in practice, weight loss and weight management, successful nutrition programs for Native American and Pacific Islander communities, cultural competence, and communication skills.

The WRPHTC also developed over 25 asynchronous trainings, hosted on TRAIN and the WRPHTC's new LMS on Moodle. We worked with Maricopa County Health Department to develop a course on Return on Investment that offers 12 modules that can be taken individually or as a complete course. The WRPHTC also worked with the Pima County Immigrant Victims of Violence Taskforce to create an online training for providers on how to serve immigrant victims of domestic and sexual violence. A quality improvement training made of 11 micro-learning videos on topics including radar and run charts, force field analysis, prioritization matrices, affinity and scatter diagrams was created and made available on TRAIN. Asynchronous trainings were also created on the topics of administering stock albuterol to students by non-licensed school personnel, dietary assessment methods, best practices in program planning for localized obesity prevention, the role of local health departments in strengthening local food systems to improve the food security and nutritional status of their communities, using health apps in dietetic practice, prioritization and time management, evaluating fad diets, interventions for post-partum weight retention, Acanthosis Nigricans, and addressing sexual violence for community health workers.

In Arizona, the Mariposa Community Health Center and Pima Community Access Program developed an Affordable Care Act (ACA) Training for Community Trainers (in English and Spanish). This training was used in coordination with the Arizona Center for Rural Health's Students Helping Arizona Register Everyone (SHARE) project, which trains health professions students (undergraduate senior or graduate students in public health, medicine, nursing, or pharmacy) to become Certified Application Counselors for the Marketplace. The AzPHTC sponsored 121 students through this certification training.

In collaboration with the Arizona Local Health Officers Association (ALHOA), AzPHTC offered a 3-part, hybrid training series on Leadership with topics being public health law, negotiation and communication strategies, and succession planning. The participant cohort was selected by ALHOA and had the opportunity to be mentored by health officers. National subject matter experts (SMEs) were invited to record a lecture that was accessible to participants online before a live, virtual discussion and case study with the SME. The training center also organized and implemented a virtual conference to discuss and develop skills needed by the public health workforce to tackle disparities in diet-related disease and food

access after being awarded the *Serving Those Who Serve Others* grant by iCohere, a provider of a cloud-based Unified Learning Management System.

Presentations and sponsorships were provided at a number of conferences (2,290 PHPs), including the Center for Integrative Medicine's Nutrition and Health Conference in 2015; the Arizona Public Health Association (AzPHA) Spring and Fall conferences in 2015, 2016, 2017, and 2018; the Arizona Center for Rural Health's annual Arizona Rural Health Conference in 2015, 2016, 2017, and 2018 and their Policy Forum in 2015; the University of Arizona Social Justice Symposium in 2016, 2017 and 2018; the 2016 Arizona Health Equity Conference; and the 2017 Arizona Academy of Nutrition and Dietetics Annual Meeting.

In Nevada, the WRPHTC with its partner at the University of Nevada, Reno Nevada Public Health Training Center (NvPHTC) trained 13,775 PHPs via 197 programs over a 4-year period. The training modalities are primarily in person and include small group and interactive activities. Training topics vary and include topics such as health disparities, cultural competency, minority health issues, healthy aging and mental health. NvPHTC partnered with local organizations to develop trainings that are relevant to the current population based on the knowledge of the local organizations. In addition, the training center has partnered in the development of public health pipeline programs with high school students interested in health care. The NvPHTC also jointly provided web-based, real-time trainings with Project ECHO each month during the second, third, and fourth project years. These webinars were well attended (around 30 PHPs per session with at least 12 sessions per year), and received positive feedback on the quality, quantity, and usefulness of the information. The NvPHTC also developed a few self-paced online trainings and held three conferences in Nevada, on effective program planning and evaluation and using frontline health workers to improve community health and chronic disease management.

In California, The WRPHTC in conjunction with the California Public Health Training Center (CaPHTC) housed at the State AHEC office, the CaPHTC together with its 6 AHEC partners trained 13,933 professionals during this project through the 519 courses. Topics included quality improvement, women's health, communication, rural health, IHSS caregiving, health coaching, wellness, medical transportation, health screenings, outreach & enrollment, and opioid abuse.

The majority of the trainings implemented by the CaPHTC were in-person workshops, but there were also a significant number of webinars and self-paced courses developed during the project. The topics of these courses included HPV vaccination, domestic abuse screening, PH infrastructure, care and support of elders, social determinants of health, veteran's mental health, and trauma informed care, among others. The CA State Office of Rural Health contracted CaPHTC to provide three webinars for rural and frontier health professionals and staff working in FQHCs, Rural Health Clinics, IHS sites, and LHDs. CaPHTC worked with the Central Office on a cultural competence in care settings webinar. The CaPHTC's contracted six sites and provided trainings with 2,859 PH and healthcare professionals on IHSS caregiving, wellness, communications, health screenings, opioid abuse, QI and PCMH.

In Hawaii, 13,536 registrations for trainings occurred via 93 trainings in the first four years. Most training topics were identified from its needs assessment while others were based on stakeholder requests. Training topics included topics such as indigenous health, nutrition and physical activity, health literacy, mental health, cultural competency, and leadership.

Monthly trainings were offered in three modalities during the first two project years, using Eventbrite as the registration site—face-to-face, webinar, and video-teleconferencing through both the State of Hawai'i's Telehealth Access Network and Information and Communication Services Division. In the third and fourth project years, a bi-modality approach was used where trainings were simultaneously offered in-person or via Zoom webinar. This allowed for the best state-wide access for all the islands in Hawaii and increased attendance by more than 30%. Trainings were recorded through Zoom and posted at https://www.youtube.com/user/vyontz1. Priority topics from the fourth year of the project are also posted on the WRPHTC's Moodle site. Results from tracking the common metrics indicated 88% or higher satisfaction rate for the programs.

Several of these programs provided continuing education (CEs) credits for trainings for the following health professional groups: Certified Substance Abuse Counselors (CSAC), Licensed Social Workers (LSW),

Licensed Clinical Social Workers (LCSW), Certified Health Education Specialist (CHES), Registered Dieticians (RD), Registered Dietitian Nutritionists (RDN), Dietetic Technicians Registered (DTR), Registered Nurses (RN), and Advanced Practice Registered Nurses (APRN).

In the USAPI, the PIPHTC has trained 5,254 PHPs via 133 trainings during the project across four time zones including participants from CNMI, Guam, Republic of Palau, all four of the FSM States plus the FSM National Government, and the Republic of the Marshall Islands. Most training topics are pre-set providing foundational training to a PH workforce, most of whom do not have formal training in PH.

Courses have been classroom-based or self-paced online on topics including epidemiology, data collection, and data assessments. A Certificate of Professional Practice in the Epidemiology and Control of Non-Communicable Diseases and a Certificate of Professional Practice in Community Health and Development were developed as a response to assessment results. The latter was a twelve-lesson course focused on evidence-based practice to alter lifestyle risk factors based around the specific needs of the US-Affiliated Pacific Islands (USAPI). Lessons are distributed as a reading packet via email. The reading packet includes a 12-20-page lesson, links to additional resources, samples of successful community-based programs, checklists for implementation, and concludes with a self-assessment and reflective writing exercise that requires participants to discuss how they would use the principles contained in the lesson in the development of a community-based lifestyle change project. Participants who complete all lessons have developed a full proposal for a community-based project, including planning, implementation and assessment activities. 100% of new trainings have been developed from stakeholder feedback and assessment and focus on both community health and development programs that focus on nutrition, physical activity, and obesity, or the epidemiology and control of non-communicable diseases.

Many partnerships were developed to implement trainings at PIPHTC. They included the School of Public Health and Primary Care at Fiji National University, University of Hawai'i at Manoa Office of Public Health Studies (UHM-OPHS), University of Hawaii, College of Micronesia-FSM (COM-FSM), Micronesia Area Health Education Center, PCC and College of the Marshall Islands AHECs, Pacific Basin Medical Association (PBMA), Pacific Basin Public Health Association (PBPHA), PH leaders who encourage staff to take CEUs, and lastly the groups that supported the PIHOA-organized DDM program delivered in Palau, Guam and Pohnpei State, FSM, to enhance the epidemiological capacity of the PH workforce—these groups were the CDC, WHO, Secretariat of the Pacific Community, FNU, PIHOA, University of Guam, and University of New South Wales

Recent Approaches and Training Developments

The College's Western Region Public Health Training Center has had over 9,000 training registrants from new trainings provided since July 1, 2018. These numbers include 15 newly developed asynchronous online courses, 34 webinar or hybrid courses, and 40 in-person workshops. It does not include those trained via asynchronous courses and archived webinar developed before the start of the project period, which are still available via the WRPHTC Moodle LMS.

The WRPHTC has developed 5 online, self-paced trainings during the project thus far. These trainings are on the topics of Legionella management, public health competencies, learning strategies for using multimedia in health promotion, and performance improvement. A webinar on promoting resiliency after mass trauma following the California wildfires was organized with the help of the Southwest Telehealth Resource Center (261 PHPs). An in-person workshop on understanding opioid-use disorder was provided with the help of Sonoran Prevention Works to case managers at a homeless shelter (43 PHPs).

The NVPHTC with support from the WRPHTC has implemented 7 Public Health ECHO Clinics since July 1, 2018 (1,363 participants). Project ECHO Clinics have created opportunities for participants to connect and collaborate on future initiatives. The November 2019 Public Health ECHO on the syphilis outbreaks in Nevada brought together several community agencies to form a new workgroup specifically for this issue. NVPHTC has presented at 9 in-person Public Health 101 trainings with roughly 40 participants at each event. NVPHTC hosted an Antimicrobial Resistance Summit in Reno (41 participants) and Las Vegas (76 participants) focused on a systems thinking approach to addressing antimicrobial stewardship in Nevada. As of February 2019, 109 users have enrolled in NV's self-paced training "How to Help Clients Living with Communicable Diseases".

In California, the WRPHTC supported the CaPHTC, together with its 5 AHEC partners to train over 2,300 professionals during this project period. Trainings included webinars on sexually transmitted infections, psychedelics as medicine, and pediatric ADHD, as well as in-person trainings on public health 101, senior health, grant writing, treating patients with opioid use disorder, and rural health. A self-paced training on nutrition for the elderly was also developed, in addition to an immunization media campaign and community-based immunization curriculum. The HOAC trained 53 health officers during a 3-day fall conference focused on disaster preparedness, response, and recovery. There were an additional two trainings implemented on “Improving Community Health: Linking Public Health and the Health Care System to Prevent Chronic Disease” (114 participants) and “Sonoma County Oral Health Leaders in Action” (137 participants).

In Hawaii, over 31 new public health trainings have been offered during this project. This includes 8 hybrid courses on a variety of topics including health communications, change management in prevention of youth violence and suicide, opioid abuse solutions, mental health, diabetes emotional quotient, and more, available both in-person or via Zoom, which were attended by 2,059 PHPs. It also includes a mini-conference organized by HIPHI on Hawaii’s youth vaping epidemic, attended by 215 PHPs. An additional mini-conference on the youth vaping epidemic was presented by HIPHI, in partnership with the Kauai Rural Health Association (91 participants).

The WRPHTC provided support to the Children Healthy Living (CHL) Program to conduct a workshop for Head Start teachers and staff on “Communicating BMI to Parents” (23 participants), to increase preschool teacher knowledge of how child BMI is calculated, how to determine a child’s weight category (using CDC Growth Charts), and how to communicate these findings to parents/caregivers of young children, as well as for Head Start parents on what BMI is and why it matters was also conducted (16 participants). Two 3-day anthropometric measurement workshops were offered in Hawaii (7 PHPs) and Guam (15 PHPs) to train participants to collect data on anthropometry, acanthosis nigricans, diet, and relevant survey information. Two online courses were offered through the CHL Summer Institute, including “the Science of Human Nutrition” (33 participants) and “Culture and Child Health in the Pacific” (13 PHPs).

The College’s training center supports the Hawaii Rural Health Association to implement 15 integrated trainings that included discussions of opioid misuse and substance use disorders, obesity, or building of infrastructure and systems management as part of the Project ECHO Hawaii Behavioral Health series.

With the support of the college’s training center, the PIPHTC trained 384 PHPs via 13 trainings during the project. This includes online modules from the certificate programs for Community Health and Development on topics such as starting and maintaining coalitions, social action programs, and conducting focus groups. It also includes in-person trainings on cognitive-behavioral therapy, anxiety, and stress-reduction techniques; integrated management of childhood illness for Community Health Workers; and influenza prevention.

<u>Certificate Programs</u>
MEZCOPH provides four non-degree, credit-bearing graduate certificates. These are designed to support working public health professionals with continuing education. The certificates include (1) an online 15-credit Graduate Certificate in Public Health,15 credits that can also be used toward an MPH at MEZCOPH; (2) a 13-credit Clinical and Translational Research Graduate Certificate that “prepares interprofessional scientists for the complexities of clinical and translational research through high-quality didactic instruction, and mentored collaborative research experiences”; (3) a 13-credit distance learning Graduate Certificate in Global Health and Development that “that provides participants the foundation knowledge and skills necessary to function effectively in global health practice, whether at home in a diverse setting, along the border in a bi-cultural environment, or abroad where populations are under-resourced and where health systems are constrained” and (4) a 15-credit Graduate Certificate in Health Administration that offers Tucson and Phoenix-based working health professionals an opportunity to advance their health administration training.

2) Provide two to three examples of education/training activities offered by the school in the last three years in response to community-identified needs. For each activity, include the number of external participants served (i.e., individuals who are not faculty or students at the institution that houses the school).

Three examples of education/training activities that exemplify the College's training include the following:

Preventing Legionnaires' disease: A Training on Legionella Water Management Programs (PreventLD Training)
This training was a collaboration between Colleges Environmental, Exposure, Science and Risk Assessment Center (ESRAC), the WRPHTC and the CDC for a range of professionals involved in water management programs. This training addresses how to reduce risk for Legionella in hospitals, retirement homes and long-term care facilities, hotels, high-rise apartment complexes, and other buildings through water management programs. It also helps water management programs align with ASHRAE 188 on reducing risk for Legionella in building water systems (e.g., potable water, cooling towers, hot tubs, decorative water features). As of March 5, 2019, 914 people had registered with 49 of the 50 states represented. Several partner newsletters have promoted it – including NEHA, ASTHO, NACCHO, APIC and recently ASHRAE and CMS, and even Best Western and the American Hotel and Lodging Association.

Training for the Navajo Nation on the Gold King Mine Disaster
On August 5, 2015, the Gold King Mine near Silverton, Colorado accidently released three million gallons of acid mine drainage into the San Juan River that borders the northern boundary of the Navajo Nation. The Gold King Mine Spill Diné Exposure Project worked with Diné communities to address their concerns by 1) determining exposure of Diné residents living in three impacted Diné communities, 2) measuring lead and arsenic in river water, river sediment, agricultural soil, irrigation water, and irrigation sediment, and 3) documenting community concerns. The content was developed by the Gold King Mine Spill Diné Exposure Project. The Navajo language is traditionally an oral language and to show respect to the community all of the videos were narrated in Navajo with matching English subtitles. David Delmar a respected member of Navajo Nation was contracted to assist with the translation and ensure the concepts were appropriately interpreted. The Gold King Mine Spill Diné Exposure Project is overseen by the Navajo Nation Human Research Review Board, approval of the videos was received on July 17th, 2018. These videos were shown at the Gold King Mine Spill Emergency Response Executive Session, which was attended by over 30 Navajo Nation Public Health officials including:

- Shawnevan Dale, Risk Manager for Navajo Nation Risk Management
- David Nez, Public Health Environmental Program Director for the Navajo Department of Public Health
- Victoria Lee, Senior Programs & Projects Specialist at the Navajo Epidemiology Center
- Harlan Cleveland, Emergency Management Director for the Navajo Department of Emergency Management
- Mae-Gilene Begay, Program Director, Navajo Department of Health Community Health Services

We also upload these to YouTube and distribute them at Indian Health Service waiting rooms. Feedback included "We are grateful for all the support we received from the WRPHTC, these videos will not only serve as a training mechanism for public health professionals but also as a way to reach the community members that the GKMS DEP is dedicated to. Ahe'hee!" – Dr. Karletta Chief.

Public Health Essentials in Action
The WRPHTC also has offered in-person and online offerings of "Public Health Essentials in Action." This course is described in **Section D1**. For workforce development, learners are asked to develop an action plan detailing immediate, short term, and long-term goals that they will strive towards in building a capacity to better serve their public health community. The goals in the action plan relate to the learner's role in the delivery of services as they relate to the systems management section of the Public Health essentials continuum.

To date, 693 public health workforce members have taken this course in person from 10 state, tribal and county health departments. The online version is trickier to track as the training center moved to using Moodle as its learning management system and this includes both students and workforce learnings. This site has 911 registered learners and does not include 4 years of tracking when learners registered using the TRAIN network.

3) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

G1. DIVERSITY AND CULTURAL COMPETENCE

G1. Diversity and Cultural Competence

1) List the school's self-defined, priority under-represented populations; explain why these groups are of particular interest and importance to the school; and describe the process used to define the priority population(s). These populations must include both faculty and students and may include staff, if appropriate. Populations may differ among these groups.

MEZCOPH is at the forefront of diversity and inclusion efforts, both at the University of Arizona as well as across CEPH accredited programs. Our students, faculty and staff represent diverse populations that meet or are approaching many of our goals (Sections 1 and 2). Current (Section 4) and planned efforts (**ERF G1**) recognize that best practices and approaches to ensuring a diverse, equitable and inclusive environment are dynamic and require us to continuously improve and be responsive to changing needs.

Our current priority populations include Blacks/African Americans, Native Americans, Latinx, and LGBTQIA+/sexual and gender minorities. These are in alignment with the National Institute on Minority Health and Health Disparities (NIMHHD). We are particularly focused on increasing our Native American and Latinx populations as we are a Land Grant University, Hispanic Serving Institution, and we also serve over 20 tribal nations within the boundaries of our State, yet we have not reached parity with the Arizona population. According to the US Census, the population of the state of Arizona is 5.3% Native American and 31.6% Hispanic. Although the representation of these groups within MEZCOPH (Table 1) is approaching these percentages we will continue to make these our priority populations until parity is achieved and maintained.

MEZCOPH's Committee on Inclusion and Equity (CIE) has historically focused on issues of gender, age, race, and ethnicity but recognizes the multi-dimensional and complex nature of diversity. Yet, since our previous accreditation the CIE has worked to more fully identify the diversity of the college and allow monitor of additional populations as described in **Table G1.** In an effort to better address the multi-dimensional nature of diversity, however, the CIE developed and administered a demographic survey (**ERF G1)** in February 2019 to measure a more inclusive list of domains listed in the table. The original survey, developed in 2013, was built upon a template developed by the Office of the President, Programs for Inclusive Excellence. The current survey builds upon the 2013 results and reflects the importance for all MEZCOPH members to have more flexibility in how they define themselves rather than limiting them to the traditional questions for gender and race/ethnicity. The survey will continue to be administered on an annual basis. This supplemental data collection will serve to nuance and refine our goals and monitor our progress in the area of equity and inclusion beyond what is just available from the passive data collection systems. As this is a voluntary survey, some individuals may choose not to respond. **Table G1.** reflects data collected in February 2019, with 448 responses, the response rate was approximately 51%. The results of this survey offer a more complete view of the nature of diversity within MEZCOPH, than other data collected from HR and student records.

Based upon the survey results (**Table G1**), other priority populations for MEZCOPH include first generation college attendance (undergraduate and graduate) and rural background. Arizona's population is largely rural and there are numerous health disparities in the rural communities that are recognized by the Rural Health Office that is situated within MEZCOPH. There is significant intersectionality between these characteristics and first-generation status, making this an additional characteristic to prioritize and monitor. Increasing representation of these populations within MEZCOPH will help us achieve the College's mission and reduce health disparities in our State.

Table G1. 2019 MEZCOPH Demographic Survey Responses (n=448)

Question	Responses	n	%
Role within MEZCOPH*	Appointed personnel	37	7.3
	Classified Staff	35	6.9
	Faculty	31	6.0
	Student	386	75.7
	Other	13	2.6
Student status at MEZCOPH*	Undergraduate	238	51.4
	Graduate	122	26.4
Age in years	<18	2	0.5
	18 – 24	222	49.7
	25 – 30	49	11.0
	31 – 40	66	14.8
	41 – 50	24	5.4
	51 – 60	11	2.5
	61 – 70	8	1.8
	>70	1	0.22
Race, Ethnicity and/or origin*	American Indian or Alaska Native	21	4.0
	Asian or Asian American	53	10.2
	Black or African American	23	4.4
	Latino/Latina/Latinx, Hispanic or Spanish Origin	126	24.3
	Middle Eastern or North African	13	2.5
	Native Hawaiian or Pacific Islander	3	0.6
	White	266	51.3
	Other origin	9	1.7
Gender identity	Female	359	80.1
	Male	77	17.2
	Non-binary/Third gender	2	0.5
	Prefer to self-identify	7	1.6
Gender or sexual minority	Yes	53	11.9
	No	369	82.6
	Sometimes	19	4.3
Military status	Active military, veteran or reserves.	15	3.6
Foreign birth	Born outside the U.S.	44	10.5
First generation college attendance	First member of a family to attend college.	147	35.0
First generation to attend graduate college	First member of a family to attend a graduate program.	93	22.0
Chronic disease/illness	Person with a chronic disease or illness	38	9.0
Disability	Person with documented disability	18	4.3
Rural background	Resided in a rural area	45	10.7
Perception of Family socio-economic status before age 18	Low socio-economic status	90	20.1
	Average socio-economic status	267	59.7
	High socio-economic status	80	18.0
Religious, spiritual or existential world view	Yes	229	51.0
	No	190	42.5
Member of a minority or marginalized group not mentioned	Yes	24	5.4
	No	414	92.6
* indicates respondent could select more than one response for the question			

2) List the school's specific goals for increasing the representation and supporting the persistence (if applicable) and ongoing success of the specific populations defined in documentation Section 1.

At MEZCOPH, we have a comprehensive list of priority underrepresented populations; the following goals and objectives are focused specifically on representation of under-represented minorities to facilitate a more inclusive and equitable organization, and to prepare and strengthen the public health workforce.

Diversity Goal 1: **Develop and Sustain a Diverse and Robust Academic Community**

- Objective 1.1 that 42.5% of undergraduates will be underrepresented minorities (7.5%, 5.0% and 30% for African Americans, Native Americans and Latinx, respectively)
- Objective 1.2 that 37% of graduate students will be underrepresented minorities (5.0%, 7.0% and 25% for African Americans, Native Americans and Latinx, respectively)
- Objective 1.3 that 20% of faculty will be underrepresented minorities (3.0%, 2.0% and 15% for African Americans, Native Americans and Latinx, respectively)
- Objective 1.4 that MEZCOPH will rank as number one across ASPPH schools in the US for Native American undergraduates, graduate students, and faculty.
- Objective 1.5 that MEZCOPH will rank as number one across ASPPH schools in the continental US for Latinx undergraduates, graduate students, and faculty.

Organizational Goal 1: is to actively maintain a stable, fair and equitable organization that supports the programs, practice and policies of MEZCOPH.

- Objective 1.1 is shared governance and carried out in accordance with MEZCOPH bylaws through the establishment of the following standing committees: Faculty Assembly, Executive Council and the Committee on Inclusion and Equity (CIE).
- Objective 1.2 is the development of CIE subcommittees to support the work of the CIE in the following areas: data and evaluation, professionalism, mission and teaching, research and service.

Organizational Goal 2: is to stand as a model of equity and inclusion by creating a scholarly community that understands values and respects all individuals so students, faculty and staff can achieve their full potential as public health leaders.

- Objective 2.1 is all faculty searches will have documented evidence of efforts to obtain a diverse pool of applicants.
- Objective 2.2 is to continuously review and monitor the diversity of MEZCOPH faculty, appointed and/or administrative personnel and staff.

The Assistant Vice President for Office of Diversity and Inclusive Excellence [1] has provided consultation and resource materials to support the efforts of the CIE. Some examples include a survey template for a self-assessment of inclusion and equity at the Department and College level, resources for the recruitment and retention of diverse faculty, and web-based and in-person trainings on unconscious bias in the hiring process. The implementation process is ongoing. MEZCOPH is the recipient of the funding through the University's Strategic Priorities Faculty Initiative (SPFI), designed to support academic departments to strategically identify and hire faculty and/or their partners/spouses. This support has resulted in the hiring of five faculty members and supports **Diversity Goal 1**.

Recent initiatives such as the University of Arizona Health Sciences' Strategic Plan, the new office of Inclusion and Multicultural Engagement (IME), and the recent designation of The University of Arizona as a Hispanic Serving Institution (HSI) serve as indicators for the magnitude and urgency with which leadership is concerned with the importance and demonstrates the willingness to move the needle towards a more diverse and inclusive institution. The CIE employs these initiatives and uses them as gained momentum within MEZCOPH to strategically influence, encourage, and provide direct guidance to those in leadership positions to adopt and implement best and evidenced-based practices to achieve our diversity goals and objectives. It is also important to acknowledge The University of Arizona is one of only a few research-intensive public institutions to receive HSI status from the United States Department of Education. The HSI designation opens new opportunities to boost supplemental grants and student support services, as well as additional benefits to the UA for research collaborations and partnerships.

3) List the actions and strategies identified to advance the goals defined in documentation request 2, and describe the process used to define the actions and strategies. The process may include collection and/or analysis of school-specific data; convening stakeholder discussions and documenting their results; and other appropriate tools and strategies.

Inclusive Excellence (I.E.) is a strategy, introduced by the American Association of Colleges and Universities, for transforming the UA into an institution that conceptualizes inclusiveness and excellence as one and the same. The MEZCOPH Committee on Inclusion & Equity has used the I.E. Guidebook, developed by the University of Arizona, Office of Diversity and Inclusion, to develop a long-term plan for implementing and practicing I.E. following a systematic assessment process (**ERF G1**) for more details. The IE Guidebook process consists of two steps and four phases.

Step One: Organization of the Committee on Inclusion and Equity

Within MEZCOPH the Committee on Inclusion and Equity began developing an action plan to address the issues within MEZCOPH. Open invitations for participation in CIE were announced college-wide. We received interest from 47 members of the college who receive notifications from the CIE listserv (coph-inclusiveex@list.arizona.edu) The attendance at our monthly meetings averages 23% participation (n=11 [+/- 2]) with representation primarily from the Office of Student Success and Academic Affairs (to include the Assistant Dean), some faculty, staff and admin, and several students. At a minimum, the composition of the CIE includes at least one faculty representative from each of the three departments and preferably from each of the programs. The CIE has 4 subcommittees: data and evaluation, professionalism, mission, and teaching, research and service.

Step Two: Utilization of the Guidebook

The first phase was to conduct a detailed inventory to understand current IE efforts in key topic areas, solutions for the future, and who was responsible for them. This inventory was completed by the administration of MEZCOPH and compiled by the CIE.

The topic areas included: 1) Goals and Values, 2) Leadership, 3) Human Resources, 4) Climate and Culture, 5) Organizational Dimensions, 6) History, 7) New Student Orientation, 8) Faculty and Staff Orientation, 9) Student Advising, 10) Curriculum, 11) New Projects and Initiatives, 12) Faculty Promotion and Tenure, 13) Financing and Budget, 14) Committees and Taskforces, 15) Policies, 16) Managing Conflict and Discrimination, 17) Student Recruitment, Retention, and Graduation, 18) Community Engagement and Outreach, 19) Artwork, 20) Fundraising, 21) Marketing and Promotional Materials, 22) Cultural Competency Training, 23) Research and Funding, 24) Physical Structure, 25) Hispanic Serving Institution Status, 26) Philosophy, Language, and Terminology, and 27) Student Affairs and Services.

The Inventory was utilized to assess our strengths and areas for improvement (Phase Two) and develop an Action Plan (Phase Three) to address these gaps. The completed plan was submitted to the Office of Diversity and Inclusion in April 2017. It is important to note MEZCOPH was the first college within the UA to successfully complete this directive. Work continued through the month of April soliciting feedback from MEZCOPH faculty, staff, and students. In June 2017, we met with all groups and individuals responsible for completing action items to receive their feedback.

As outlined in (**ERF G1)**, a comprehensive list of action items and strategies were developed following this process. These included strategies in the following six content areas: 1) Structure, 2) Governance and Leadership, 3) Environment and Climate, 4) Instruction- Classroom and Content, 5) Faculty and Staff, and 6) Assessment.

Metrics and assessments (Phase 4) are in process to monitor progress on the goals and objectives outlined in the plan.

4) List the actions and strategies identified that create and maintain a culturally competent environment and describe the process used to develop them. The description addresses curricular requirements; assurance that students are exposed to faculty, staff, preceptors, guest lecturers and community agencies reflective of the diversity in their communities; and faculty and student scholarship and/or community engagement activities.

MEZCOPH's actions and strategies that delineate how we maintain a culturally competent environment is presented in **Table G2**. The table identifies the priority areas for the college and its curricula.

Table G2. Actions/Strategies and Curricular Requirements

G2-a. Actions and strategies identified that create and maintain a culturally competent environment and describe the process used to develop them.	
Priority One: Structure	***Actions and strategies***
The allocation of protected budget lines to support a diversity and inclusion leadership position, training certification, and recruitment and retention programs.	The co-chairs of CIE receive 0.2 FT (split) to ensure they have sufficient time to dedicate towards ensuring that MEZCOPH has an inclusive and equitable environment. A Research Specialist (0.5 FTE) also supports CIE efforts. CIE co-chairs collaborate, with individuals and organizations within and outside of MEZCOPH to include: the Dean's Office, department heads, the Development Office, the UA Office of Inclusion and Multicultural Engagement (IME), Office of Student Success and Academic Affairs, Community Engagement, Practice and Service (CEPAS), Human Resources, and the UAHS Diversity Workgroup. These collaborations are essential to ensure that actions and strategies for inclusion and equity are infused throughout all programs, units and departments within MEZCOPH and that our efforts are aligned with the Diversity and Inclusion of the UA Health Sciences and the overall University. • Development and implementation of core competency and recommended diversity and inclusion related trainings required for all college leadership, faculty, staff, and students. • Diversity section included in the Annual Progress Report for all faculty. • Development of a diversity website for the College (https://publichealth.arizona.edu/diversity-and-inclusion) • Development of a checklist to ensure a diverse hiring pool for all faculty and staff positions.

G2-a. Actions and strategies identified that create and maintain a culturally competent environment and describe the process used to develop them.	
Priority Two: Inclusive learning, instruction, and classroom environments	***Actions and strategies***
The cultivation and development of an academic environment conducive to institutional transformation and excellence through teaching and learning.	Strategies to support an environment and climate for inclusive learning, instruction and classrooms were developed through collaboration and consensus with individuals and organizations within MEZCOPH including, the Education Committee, the Dean's Office, department heads, Office of Student Success and Academic Affairs, Committee on Inclusion and Equity, Community Engagement, Practice and Service (CEPAS), and Human Resources • Require all students in MEZCOPH to take at least one diversity/social justice related course • The review and assessment of course syllabi for inclusion and integration of diverse scholars and perspectives to ensure the integration of literature, research and perspectives from people of color, LGBTQ+ people, and non-Western scholars. • Established a process for anonymous reporting of student concerns through a comment box • The inclusion and/or creation of learning outcomes and competencies related to diversity and inclusion. • Hosted a workshop series on Diversity in the Classroom, which targeted at least one faculty representative from each of the six programs in Tucson to act as program lead for diversity and inclusion efforts. • Hosted a training on microaggressions at the college retreat which was attended by faculty and staff.
Priority Three: environment and climate	***Actions and strategies***
The cultivation and education of a college community, whereby incidence of bias, discrimination, and harassment are not tolerated.	For developing these strategies collaboration, direction, and consensus with individuals and organizations within MEZCOPH included: Office of Student Success and Academic Affairs, Committee on Inclusion and Equity, Community Engagement, Practice and Service (CEPAS), Human Resources, the Office of Inclusion and Multicultural Engagement (IME), and the Title IX Office. • Educate the MEZCOPH community on the bias incident reporting system and ensure participation in the mandatory discrimination and harassment training • Educate the MEZCOPH community about the availability of two sexual assault advocates for the University of Arizona health Sciences • Working on designs with the University for Gender inclusive restrooms • Installation of a Lactation room • Developed a system to solicit anonymous feedback on issues faced by students • Developed transparent salary guidelines to ensure parity in the salary structure.

G-2b Curricular Requirements that address diversity by degree.		
Degree	**Required Courses**	**Credit load**
Undergraduate Public Health Major	HPS 387 Health Disparities and Minority Health	3
Accelerated BS and MPH Environmental and Occupational Health	HPS 577 Sociocultural and Behavioral Aspects of Public Health	3
Master of Public Health (including dual degree programs)	HPS 577 Sociocultural and Behavioral Aspects of Public Health	3
DrPH Maternal and Child Health	HPS 605 Community-Based Participatory Action Research to Decrease Health Disparities	3
	HPS 704 Public Health Leadership to Reduce Health Disparities	3
DrPH Public Health Policy and Management	HPS 704 Public Health Leadership to Reduce Health Disparities	3
	Community and Cultural Sensitivity Course (course selection requires approval from faculty advisor)	3
PhD in Health Behavior Health Promotion	HPS 535 Multicultural Health Beliefs	3
	HPS 605 Community-Based Participatory Action Research to Decrease Health Disparities	3
Master of Science (MS)/PhD in Environmental Health Sciences	EHS 585 Public Health Fundamentals for Researchers	3
Master of Science (MS)/PhD in Epidemiology	EPID 585 Public Health Fundamentals for Researchers	3
Master of Science (MS)/PhD in Biostatistics	BIOS 585 Public Health Fundamentals for Researchers	3

Recruitment of Diverse Faculty and Staff

In April 2018, the CIE assembled a faculty search committee toolkit. It serves as a repository for numerous resources currently housed in the cloud-based storage providing easy access and availability for stakeholders involved in the hiring process of instructional faculty at MEZCOPH. Included in the repository are evidenced-base checklists and recommendations for best practices in the recruitment, hiring, and retention of diverse instructional faculty. One resource in particular crafted by the CIE is the MEZCOPH Faculty Hiring Strategies Checklist as a tool that highlights seven key categories such as the search committee, recruiting applicants and evaluating the search (**ERF G1**). This combined with additional documents on recruitment strategies and implicit bias resources make this repository a resource for all instructional faculty search committees.

The CIE involvement in Faculty hiring processes has been formalized in MEZCOPH Bylaws. By following these requirements, MEZCOPH meets Organizational Goal 2; Objective 2.1 (Section 2).

Faculty and student scholarship and/or community engagement activities.

MEZCOPH is situated in an academic and political environment, and it is subject and responsive to hierarchies that perpetuate power differences. Public Health, as a discipline, also has a history of oppression and inappropriate/unethical actions in the name of the discipline. The Community Engagement, Practice, and Service Committee's (CEPAS) purpose is to remind MEZCOPH to keep community engagement front and center in terms of what our mission is as well as to monitor how we are doing over time. CEPAS is a platform where faculty, academic professionals, students and staff discuss issues related to community research teaching, and service. The following three categories illustrate participative, empowerment, and leadership community engagement initiatives (**Table G.3**). Each has contributed to achieving CEPAS' objectives through the development, implementation and on-going nature of programs such as the AHEC Scholars Program, the Service Learning Institute, and the Community Engaged Scholarship and Practice Award. Guest lecturers and seminar speakers are routinely recruited from our community partners (**Table G.3**).

Table G3. Community Engagement Levels and Partners

Community Engagement Level	Community Partners
Participative: community partners that influence priorities and resource use at MEZCOPH	AZ Department of Health Services [chronic disease, workforce and licensing] AZ Rural Women's Health Network AZ Alliance for Community Health Centers Bureau of EMS and Trauma System Mariposa Community Health Center Non-Profit Healthcare QI Groups North County Health Care Pima Community Access Program Southeastern AZ Area Health Education Center Southern Arizona Legal Aid Tucson Family Advocacy program
Empowerment: Community partners work in shared planning and action with MEZCOPH	AZ Community Health Workers Association AZ Alliance of Community Health Centers AZ Department of Health Border Health Office Federally Qualified Health Centers Healthcare Providers Mariposa Community Health Center Navajo Community Health Representatives Southeastern AZ Area Health Education Center
Leadership: Community partners that initiate and lead, with MEZCOPH support, on issues	AZ Department of Health Services [injury prevention] AZ Rural Women's Health Network AZ Hospital and Healthcare organizations Community Food Bank of Southern AZ County Health Departments Healthy AZ Worksites Program Hospitals in rural Arizona Living Streets Alliance Navajo Nation Chapter Governments Pima County Health Department – Community Development [housing] Refugee Primary Care Work Group Tribal Health Departments

5) Provide quantitative and qualitative data that document the school's approaches, successes and/or challenges in increasing representation and supporting persistence and ongoing success of the priority population(s) defined in documentation Section 1.

The attainment of the diversity goals set forth in Section 2 is ambitious, they are also realistic and attainable overtime and we have made good progress towards meeting them. The diversity represented within the MEZCOPH student body could not have been accomplished without the due diligence from the Office of Student Services and Alumni Affairs (OSSAA). While the CIE strives to set forth an agenda that addresses the most pressing issues of diversity & inclusion within the COPH, OSSAA's approach to student recruitment, retention, and graduation are significant. While the CIE is not directly involved in the day-to-day operations of recruitment, retention, and graduation of students, OSSAA represents the largest constituent within the committee make-up.

Undergraduate Public Health Program

To assess the representation and supporting persistence and ongoing success of our priority populations in our undergraduate program we examined the proportion by gender and race/ethnicity for our pre-public health major (**Table G4**), enrolled public health majors (**Table G5**), and graduates of our public health major (**Table G6**) over the last 4 years (2018-2015). The undergraduate student class is predominantly female across all five years. Pre-health, enrollment and graduation rates all track similarly indicating limited difference in success rates when considering only binary gender (**Tables G4-G6**).

We have met Objective 1.1. The proportion of underrepresented minority (URM) students (for those with and without two or more races), is relatively stable over the five-year period and in 2018, 47% of our graduating undergraduate public health majors were from URM backgrounds. Pre-health, enrollment and graduation rates all track similarly indicating limited difference in success rates when considering race and ethnicity (**Tables G4-G6**). By sub-population we are approaching but have not reached our representation goals for Native American or African American students.

Table G4. Undergraduate *Enrollment Pre-Public Health* Majors

Pre-Health (Based on Fall 2018 enrollment)	2018 n	2018 %	2017 n	2017 %	2016 n	2016 %	2015 n	2015 %
Enrolled	637	100	730	100	737	100	667	100
Gender								
Female	499	78	568	78	579	79	518	78
Male	138	22	162	22	158	21	149	22
Race, Ethnicity and/or Origin								
American Indian or Alaska Native	16	3	22	3	21	3	14	2
Asian	39	6	59	8	55	7	51	8
Black or African American	44	7	41	6	39	5	30	4
Hispanic/Latino	216	34	248	34	274	37	230	34
Native Hawaiian or Other Pacific Islander	0	0	1	0	3	0	0	0
White	279	44	305	42	289	39	294	44
Two or More Races	28	4	42	6	45	6	39	6
Unknown/Other	8	1	8	1	5	1	4	1
Foreign Non-US Citizen	7	1	4	1	6	1	5	1
Underrepresented Minorities (*with* Two or More Races)	304	48	353	48	379	51	313	47
Underrepresented Minorities (*without* Two or More Races)	276	43	311	43	334	45	274	41

* Underrepresented Minorities include: American Indian or Alaska Native, Black or African American and Hispanic/Latino

Table G5. Undergraduate *Enrollment Public Health* Majors

Public Health majors (Based on Fall 2018)	2018 n	2018 %	2017 n	2017 %	2016 n	2016 %	2015 n	2015 %
Enrolled	305	100	299	100	287	100	299	100
Gender								
Female	241	79	236	79	230	80	235	79
Male	64	21	63	21	57	20	64	21
Race, Ethnicity and/or Origin								
American Indian or Alaska Native	10	3	11	4	7	2	9	3
Asian	22	7	17	6	27	9	27	9
Black or African American	13	4	17	6	20	7	27	9
Hispanic/Latino	94	31	105	35	77	27	82	27
Native Hawaiian or Other Pacific Islander	0	0	7	2	9	3	10	3
White	145	48	123	41	138	48	139	46
Two or More Races	17	6	16	5	4	1	0	0
Unknown/Other	2	1	0	0	3	1	1	0
Foreign Non-US Citizen	2	1	3	1	2	1	4	1
Underrepresented Minorities (*with* Two or More Races)	134	44	149	50	108	38	118	39
Underrepresented Minorities (*without* Two or More Races)	117	38	133	44	104	36	118	39

* Underrepresented Minorities include: American Indian or Alaska Native, Black or African American and Hispanic/Latino

Table G6. Bachelor of Science in Public Health, *graduated*

Public Health Undergraduate (Based on Fall 2018)	2018 n	2018 %	2017 n	2017 %	2016 n	2016 %	2015 n	2015 %
Enrolled	243	100	226	100	209	100	198	100
Gender								
Female	196	81	184	81	166	79	159	80
Male	47	19	42	19	43	21	38	19
Race, Ethnicity and/or Origin								
American Indian or Alaska Native	9	4	7	3	7	3	8	4
Asian	17	7	18	8	24	11	18	9
Black or African American	14	6	13	6	20	10	10	5
Hispanic/Latino	91	37	63	28	61	29	60	30
Native Hawaiian or Other Pacific Islander	5	2	1	0	4	2	2	1
White	95	39	111	49	91	44	98	49
Two or More Races	10	4	10	4	0	0	0	0
Unknown/Other	0	0	2	1	1	0	2	1
Foreign Non-US Citizen	2	1	1	0	1	0	0	0
Underrepresented Minorities (*with* Two or More Races)	124	51	93	41	88	42	78	39
Underrepresented Minorities (*without* Two or More Races)	114	47	83	37	88	42	78	39

* Underrepresented Minorities include: American Indian or Alaska Native, Black or African American and Hispanic/Latino

Graduate Public Health Programs

To assess the representation and supporting persistence and ongoing success of our priority populations in our graduate programs we examined the proportion by gender and race/ethnicity for of students who applied (**Table G7**), were admitted (**Table G8**), enrolled (**Table G9**), and graduated (**Table G10**) over the last 4 years (2018-2015). The graduate student body is predominantly female across all five years. Application, admission, enrollment and graduation rates all track similarly indicating limited difference in success rates when considering only binary gender (**Tables G7-G10**).

We have not met Objective 1.2. However, we have significantly increased the proportion of underrepresented minority students who apply, are admitted, enrolled and graduated over the last 4 years and are approaching the objective. The number of underrepresented minority students who applied has increased from 19% in 2015 to 31% in 2018. Similarly, the proportion that has graduated has increased from 22% in 2015 to 34% in 2018. By year, application, admission, enrollment and graduation rates all track similarly indicating limited difference in success rates when considering proportion of underrepresented minority students. By sub-population we are approaching but have not reached our representation goals for Native American or Latinx students. Although not one of our key priority populations, of concern is the significant downward trend in the proportion of international students that apply compared to those that are admitted, that enroll and that graduate (**Tables G7-G10**).

The key component during the reporting period was the formal implementation, by OSSAA, of the holistic admissions process in 2017. The holistic admissions process is specific to master and doctoral level students (undergraduate admissions is not a competitive process). Additionally, MEZCOPH employs a list of best practices: the number one best practice: “ALL APPLICANTS are encouraged to apply. There is no weeding out prior to the application process.” Section H4 details student recruitment and admissions. MEZCOPH CIE will continue to monitor trends to see if these changes in practice continue to support and increase in the proportion of underrepresented minority graduate students and international students.

Table G7. Public Health Graduate students, *applied*

Graduate Students Applied (Based on Fall Enrollment)	2018		2017		2016		2015	
	n	%	n	%	n	%	n	%
Enrolled	792	100	768	100	714	100	521	100
Gender								
Female	572	72	547	71	483	68	353	68
Male	219	28	216	28	231	32	168	32
Unknown	1	0	5	1	0	0	0	0
Race, Ethnicity and/or Origin								
American Indian or Alaska Native	22	3	22	3	27	4	17	3
Asian	94	12	90	12	86	12	70	13
Black or African American	79	10	67	9	60	8	29	6
Hispanic/Latino	119	15	120	16	92	13	52	10
Native Hawaiian or Other Pacific Islander	0	0	0	0	2	0	0	0
White	303	38	325	42	277	39	215	41
Two or More Races	25	3	0	0	0	0	0	0
Unknown/Other	35	4	34	4	31	4	19	4
Foreign Non-US Citizen	115	15	110	14	139	19	119	23
Underrepresented Minorities (*with* Two or More Races)	245	31	209	27	179	25	98	19
Underrepresented Minorities (*without* Two or More Races)	220	28	209	27	179	25	98	19

* Underrepresented Minorities include: American Indian or Alaska Native, Black or African American and Hispanic/Latino

Table G8. Graduate students, *admitted*

Graduate Students Admitted (Based on Fall Enrollment)	2018		2017		2016		2015	
	n	%	n	%	n	%	n	%
Enrolled	536	100	489	100	468	100	333	100
Gender								
Female	401	75	360	74	319	68	233	70
Male	134	25	125	26	149	32	100	30
Unknown	1	0	4	1	0	0	0	0
Race, Ethnicity and/or Origin								
American Indian or Alaska Native	15	3	16	3	18	4	11	3
Asian	66	12	56	11	55	12	52	16
Black or African American	45	8	38	8	34	7	14	4
Hispanic/Latino	93	17	86	18	74	16	36	11
Native Hawaiian or Other Pacific Islander	0	0	0	0	1	0	0	0
White	244	46	243	50	219	47	162	49
Two or More Races	14	3	2	0	0	0	0	0
Unknown/Other	23	4	14	3	24	5	14	4
Foreign Non-US Citizen	36	7	34	7	43	9	44	13
Underrepresented Minorities (*with* Two or More Races)	167	31	142	29	126	27	61	18
Underrepresented Minorities (*without* Two or More Races)	153	29	140	29	126	27	61	18

* Underrepresented Minorities include: American Indian or Alaska Native, Black or African American and Hispanic/Latino

Table G9. Graduate students, *enrolled*

Graduate Students Enrolled (Based on Fall Enrollment)	2018		2017		2016		2015	
	n	%	n	%	n	%	n	%
Enrolled	641	100	577	100	544	100	447	100
Gender								
Female	471	73	417	72	381	70	303	68
Male	169	26	160	28	163	30	144	32
Unknown	1	0	0	0	0	0	0	0
Race, Ethnicity and/or Origin								
American Indian or Alaska Native	27	4	24	4	29	5	25	6
Asian	76	12	69	12	52	10	63	14
Black or African American	54	8	46	8	41	8	29	6
Hispanic/Latino	132	21	117	20	100	18	73	16
Native Hawaiian or Other Pacific Islander	0	0	0	0	0	0	0	0
White	312	49	285	49	283	52	224	50
Two or More Races	5	1	0	0	0	0	0	0
Unknown/Other	5	1	17	3	12	2	10	2
Foreign Non-US Citizen	30	5	19	3	27	5	23	5
Underrepresented Minorities (*with* Two or More Races)	218	34	187	32	170	31	127	28
Underrepresented Minorities (*without* Two or More Races)	213	33	187	32	170	31	127	28

* Underrepresented Minorities include: American Indian or Alaska Native, Black or African American and Hispanic/Latino

Table G10. Graduate Students, *graduated*

MPH, MS, DrPH, PhD Graduates (Total for Academic Year)	2018		2017		2016		2015	
	n	%	n	%	n	%	n	%
Enrolled	211	100	172	100	122	100	90	100
Gender								
Female	159	75	111	65	92	75	67	74
Male	52	25	56	33	30	25	23	26
Unknown	0	0	5	3	0	0	0	0
Race, Ethnicity and/or Origin								
American Indian or Alaska Native	11	5	7	4	7	6	6	7
Asian	24	11	21	12	20	16	11	12
Black or African American	11	5	18	10	8	7	4	4
Hispanic/Latino	50	24	27	16	15	12	10	11
Native Hawaiian or Other Pacific Islander	0	0	0	0	0	0	0	0
White	107	51	87	51	66	54	52	58
Two or More Races	0	0	0	0	0	0	0	0
Unknown/Other	6	3	4	2	2	2	2	2
Foreign Non-US Citizen	2	1	8	5	4	3	5	6
Underrepresented Minorities (*with* Two or More Races)	72	34	52	30	30	25	20	22
Underrepresented Minorities (*without* Two or More Races)	72	34	52	30	30	25	20	22

* Underrepresented Minorities include: American Indian or Alaska Native, Black or African American and Hispanic/Latino

Graduation Rates by Race/Ethnicity

To assess the persistence and ongoing success of our priority student populations, we also examined graduation rates by race and ethnicity. As presented in (**ERF G1**), the student diversity step tables illustrate trends from 2015/16 through 2018/19 academic years. Overall the cumulative graduation rates among the different ethnic/race groups does not differ substantially. The rates for African American and Native Hawaiian/Pacific Islander are lower than the other groups indicating they may not be graduating at the same rate.

Faculty

To assess the representation and supporting persistence and ongoing success of our priority populations among our faculty we examined the proportion by gender and race/ethnicity for our primary (**Table G.11**) and non-primary instructional faculty (**ERF G1**). There is consistency across years (2015-2018) around 60% female faculty. These gender-based trends were similar between both primary and non-primary instructional faculty.

In 2018, we met Objective 1.3 for our primary instruction faculty (**Table G11**). We met Objective 1.3 for years 2016-2017 if you assume that individuals who reported mixed race status are from underrepresented backgrounds (**Table G.11**). However, among the primary instructional faculty the percentage of faculty from underrepresented backgrounds is 2-3 times greater among the career and tenure track compared to the tenured faculty **(ERF G1**). However, there is great promise that our tenured faculty will be more diverse in upcoming years, as the current pool of tenure track faculty, more than 35% who have underrepresented minority backgrounds, are promoted and granted tenure. The CIE will be tasked to monitor the diversity of the faculty and identify ways to encourage the success of our current tenure track faculty in promotion.

Table G11. Primary Instructional Faculty

	2018		**2017**		**2016**		**2015**	
	n	%	n	%	n	%	n	%
Primary Instructional Faculty	68	100	64	100	66	100	64	100
Gender								
Female	41	60	37	58	38	58	35	55
Male	27	40	27	42	28	42	29	45
Race, Ethnicity and/or Origin								
American Indian or Alaska Native	1	1	0	0	0	0	0	0
Asian	5	7	5	8	4	6	5	8
Black or African American	6	9	5	8	4	6	2	3
Hispanic/Latino	8	12	4	6	5	8	5	8
Native Hawaiian or Other Pacific Islander	0	0	0	0	0	0	0	0
White	42	62	40	63	45	68	45	70
Two or More Races	0	0	5	8	4	6	4	6
Unknown/Other	3	4	2	3	2	3	2	3
Foreign Non-US Citizen	3	4	3	5	2	3	1	2
Underrepresented Minorities (*with* Two or More Races)	15	22	14	22	13	20	11	17
Underrepresented Minorities (*without* Two or More Races)	15	22	9	14	9	14	7	11

ASPPH Rankings

Although our ultimate goal is to have compositional diversity that reflects the population of the State of Arizona, an intermediary goal is to be among the top of ASPPH schools for Native Americans and Latinx. To assess this, we compared the diversity of our undergraduates, graduate students and faculty to the other ASPPH schools (**Table G.12**). In our analysis we excluded schools outside of the continental US (i.e., Universidad de Puerto Rico, INSP, and NTU).

We have partially met Objective 1.4. We have consistently ranked as the number one school for Native American undergraduates from 2015-2018. While in 2015, we ranked number one for graduate students, this ranking dropped to number two the remainder of the reporting period. We hired a Native American faculty member in 2015, it is not clear why they are not included in the ASPPH data as reported by UA. The CIE has formed a Data subcommittee to focus on how data is collected and reported and its accuracy. There are currently plans to hire a faculty member whose research focuses on Indigenous Health.

We have not met Objective 1.5. We have consistently ranked as the number two school for Latinx undergraduates from 2015-2018 (**Table G12**). We have steadily increased our ranking for Latinx graduate students, and was ranked number two for the last two years (2017-2018). There is also concern that we have been less successful in recruiting new URM faculty than other institutions as indicated by our fall in rank for faculty from Hispanic/ Latino faculty from 1 to 6 between 2015-2018.

Table G12. ASPPH Rank by percent Native American and Hispanic/Latino of undergraduates, graduate students and faculty. (Does not include institutions outside of the continental US).

	2018	2017	2016	2015
Undergraduates				
Rank for % Native American	1	1	1	1
Rank for % Hispanic/Latino	2	2	2	2
Number of Programs/Schools	34	34	33	28
Graduate Students				
Rank for % Native American	2	2	2	1
Rank for % Hispanic/Latino	2	2	4	6
Number of Programs/Schools	58	57	55	56
Faculty				
Rank for % Native American	*	3	*	*
Rank for % Hispanic/Latino	6	6	1	1
Number of Programs/Schools	60	54	55	56

***Tied with all the schools who do not have any Native American Faculty**

6) Provide student and faculty (and staff, if applicable) perceptions of the school's climate regarding diversity and cultural competence.

While we have not done a formal climate survey of MEZCOPH, we have data from several sources indicating the potential current climate at MEZCOPH including student exit surveys and college-specific findings from a University-wide Organizational Health survey.

In the exit survey for graduating students, students were asked "**What is the degree cultural diversity is supported by COPH average score (1-5 scale, 5=most supported?)".** Results indicated that both undergraduates and graduates rank MEZCOPH as supportive of cultural diversity; undergraduate (n = 88, 4.39/5) and graduate (n = 161, 4.34/5) (**Table G13**). Comments on strengths and areas for improvement were collected. Students indicated that the top two perceived strengths within the college are diversity of the students and curriculum addressing diversity. Conversely, the number one area of suggested improvement, from both graduate and undergraduate students, was curriculum addressing diversity. One specific gap identified was the need to include expand the curriculum to include LGBTQ+ health. The CIE is working within MEZCOPH and with the other Health Sciences colleges to address this issue.

Table G13. Student Exit Survey Results, 2014-2016

	Undergraduate n=88 (2016)	Graduate n=310 (2014-2016)
Degree cultural diversity is supported by COPH average score (1-5 scale, 5=most supported)	4.39/5	4.34/5
Key Areas of Strength		
Diversity of Students		94 (30.3%)
Curriculum Addressing Diversity	46 (52.3%)	92 (29.7%)
Events/Involvement		38 (12.3%)
Diversity Valued	9 (10.2%)	35 (11.3%)
AZ Cultural Identities		33 (10.6%)
Service Learning		28 (9.0%)
Diversity of People - Faculty/Staff		27 (8.7%)
Diverse People – Students	10 (11.4%)	
Key Areas for Improvement		
Curriculum Addressing Diversity	28 (31.8%)	55 (17.7%)
Diversity of People – Students		31 (10.0%)
Broader Definition of Diversity		30 (9.7%)
Events/Involvement		24 (7.7%)

The College Environment Committee was formed in the summer of 2016 following a college-wide retreat held in May of that year. During a brainstorming session at the retreat, a number of ideas for improving the work and study environment in the college were identified. Three staff members stepped forward to conceive and organize a plan for implementing those ideas. That summer, a survey went out to all faculty, staff and students with three objectives:

1. Prioritize ideas from the retreat based upon the college community's perceived importance of each item,
2. Request additional items from members of the college not present at the retreat, and
3. Solicit volunteers.

The newly formed committee met to review the survey results on August 5, 2016, organizing the initiatives into themes and forming work groups. As the committee work groups began chipping away at the retreat to-do list, the need to survey the college again arose. In January of 2018 a second survey was sent to the college community with similar objectives as the first.

Since the committee began, more than 40 students, staff and faculty have participated in the work groups to:

- Create a comprehensive new-hire tool kit to aid new hires and supervisors,
- Convert a storage closet into a lactation room,
- Facilitate the establishment of bike valet for the Health Sciences,
- Elevate the visibility of the college's Mission, Vision and Values statement including adding them to staff/faculty on-boarding documents, new student orientation and program applications,
- Organize weekly yoga sessions,
- Create the college's diversity and inclusion webpage,
- Sponsor events like a college bowling night and a Finals Survival Day,
- Bring trainings to the college/Health Sciences on topics such as suicide prevention, managing anxiety, active shooter, and supporting victims of sexual assault,
- Have a water bottle refill station installed,
- Improve building signage, and create student suggestion boxes.

The College Environment Committee has a fairly decentralized model. The Steering Committee meets on as-need basis. The work groups, the heart of the committee, meet according to the needs and availability of the members. Some work groups elect to keep themselves organized and moving forward via email and phone calls rather than in-person meetings. Representatives of the work groups come together with the Steering Committee approximately four times a semester in order to provide mutual support.

The College Environment Committee has also executed two surveys that solicit input on necessary infrastructure changes for the improvement of the health and well-being of all members of MEZCOPH. These surveys have included several key topics that align with monitoring and improving inclusion and diversity within the college. An initial survey was conducted in summer 2016 to all faculty, staff and students to prioritize changes to the current infrastructure in the college.

The initial 2016 survey identified the following key priorities that overlap with diversity and inclusion initiatives in the College. First to promote a welcoming environment for individuals who have families, this included ensuring access to a lactation room, childcare resources, and family-inclusive activities. Another priority identified was to provide access to gender neutral bathrooms within the college. During the survey process there were other key issues identified that were referred to the Committee on Inclusion and Equity for follow-up. These included responses that emphasized the college needed to develop processes that facilitated hiring and support for underrepresented groups to join MEZCOPH as faculty and staff, and finally to ensure that there was broad-scale training for all current faculty and staff on microaggressions, implicit bias, and diversity and inclusion in the classroom.

The UA participates in Harvard's Collaborative on Careers in Higher Education (COACHE) Survey. One of the main findings from the UA wide analysis is that underrepresented minority faculty (URM) have notably lower assessments of department climate, engagement, and quality, including related items such as fit, collegiality, and shared commitment to diversity. URM faculty also had more negative assessments of departmental mentoring, retention efforts, and diversity efforts. Although the gap was smaller, female faculty also had lower assessment. We only received aggregate data for MEZCOPH due to our small faculty numbers, thus could not examine trends by race/ethnicity or gender. However, we were able to assess areas of strength and areas for improvement compared to the other UA colleges. Compared to other UA colleges, MEZCOPH scored higher than average on: facilities and work resources, personal and family policies, health and retirement benefits, interdisciplinary work, collaboration, tenure policies, promotion to full, trust, adaptability, and collegiality. However, compared to other UA colleges, MEZCOPH scored lower on: clarity of tenure expectations, division/departmental leadership

During a college-wide retreat, an exercise was undertaken to determine how well we demonstrate the values of our college. Relevant values include diversity, equity, and fairness. In fairness individuals remarked that the promotion and tenure process was fair and equitable and encompassed individuals with different types of scholarship. Within the equity group it was noted that there is an active committee on inclusion and equity, service-learning opportunities, and opportunities for trainings. Individuals also noted the need for gender-neutral bathrooms, practice of university design in classrooms, to mandate trainings, and provide more funding for diverse student and faculty recruitment. For diversity, individuals highlighted strengths in an active diversity committee, the institutions commitment to more inclusive hiring and admissions policies, the student social justice symposium, holistic admissions, and minority faculty hires. However, it was also noted that there was a need to incentivize trainings for all faculty and staff to improve the environment, provision of more resources for retention of students, staff, and faculty, and need for more recognition of diversity efforts.

Given MEZCOPH's commitment to diversity, cultural competency and organizational health, it has been determined that there is a need to more systematically assess the college's climate. We have developed a contract with one of UA's experts on assessing climate for the health sciences. The CIE and the climate expert will conduct a comprehensive climate survey in fall 2019. The process will be rigorous and transparent to maximize transparency and responsiveness. The following is a brief overview of the process and steps.

- Create a climate survey taskforce: A special taskforce will be created to advise on the development and implementation of the climate survey. It is recognized as critical to have participation of representatives from all perspectives therefore at a minimum we will have representatives from Dean's council, student services, undergraduate, MPH, PhD, and MS students with representation from multiple programs, tenure track faculty, non-tenure eligible faculty, and staff members. The CIE will work closely with the Dean's Council to ensure that diverse voices are represented on the taskforce.
- Create a climate survey webpage: To ensure transparency of the process a webpage will be created to provide information to college members about overall process, current stage of the work, taskforce members, and finally the unedited final report.

- Develop climate survey tool: The Taskforce will work collaboratively with the climate survey consultant to develop items for the climate survey tool that are priorities for the college. These items will be included with standard validated climate survey items.
- Obtain IRB approval: After the survey has been drafted, materials will be submitted to the IRB for review. While internal surveys do not necessarily require IRB approval, this added layer will ensure that confidentiality and anonymity are protected for all participants in the survey.
- Execute climate survey: It is expected that the survey will be implemented in spring 2020. This will allow time for development of the taskforce and survey tool.
- Analysis of climate survey data: The consultant will analyze the survey data and provide initial results to the Taskforce. To ensure neutrality in the analysis, no member of the taskforce will have access to the raw data. An iterative process will be undertaken to complete the analyses whereby the taskforce can request more in depth analysis as key issues are identified.
- Publication of report: The unedited report will be disseminated internally to all MEZCOPH students, faculty and staff.
- Follow-up actions: After analysis, key issues that are to be addressed will be identified and assigned to specific committees or individuals as deemed appropriate. The CIE will be the lead committee to follow-up and track progress on items that are identified during the process.

7) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

H1. ACADEMIC ADVISING

H1. Academic Advising

The school provides an accessible and supportive academic advising system for students. Each student has access, from the time of enrollment, to advisors who are actively engaged and knowledgeable about the school's curricula and about specific courses and programs of study. Qualified faculty and/or staff serve as advisors in monitoring student progress and identifying and supporting those who may experience difficulty in progressing through courses or completing other degree requirements. Orientation, including written guidance, is provided to all entering students.

1) Describe the school's academic advising services. If services differ by degree and/or concentration, a description should be provided for each public health degree offering.

The Office of Student Services and Alumni Affairs (OSSAA) is home to all advising staff and student services personnel of the campus-based programs in the College. OSSAA staff includes the Assistant Dean for Student and Alumni Affairs, the Director of Admissions, the MPH Coordinator, the MS/Doctoral and Certificate Coordinator, the Phoenix MPH Coordinator, three Undergraduate Advisors, and an Administrative Associate. It also has a coordinator for the undergraduate program. The online programs also have a director and a student support specialist for the MPH program. The online undergraduate program has full-time faculty who directs the required internship.

OSSAA staff consistently work to find effective and innovative methods to deliver advising resources to a growing number of applicants and students. Eight of the ten student services professionals in OSSAA possess public health degrees, assuring close adherence to public health tenets and a keen understanding of the workforce that our students will populate. In recognition of their outstanding efforts to support our students, their participation in the advising community of the University of Arizona and nationally, the College of Public Health Undergraduate Advising Team was awarded the 2019 University of Arizona Team Award for Excellence.

Comprehensive orientations are presented to each of the program levels to provide students with effective opportunities for success in the College's programs.

BS Program Advising
Students in the on-campus and online BS program (Pre-public health majors, public health majors and public health minors) receive their advising from four academic advisors (Advisor II level employees) as well as from the Coordinator of Undergraduate Advising. A mixed model for advising combining walk-in, online group advising modules with appointment-based minute advising sessions is used. Each student has an assigned advisor (split by alphabet). Most recently a process by which students can request and access individual virtual advising sessions via ZOOM was instituted. Students make an appointment, show up online for the appointment, wait in a virtual waiting room and then are invited in by their advisors. The drop-in service is carried out by the on-call advisor. Internship advising is performed by the Lecturer/Director of Undergraduate Advising.

Graduate Advising
The following narrative regarding graduate program advising includes the terms Advisor, Faculty Mentor, and Faculty Advisor. Within the MPH Program, the term Advisor refers to the MPH Coordinator and Faculty Mentor refers to the faculty member assigned to mentor the student. Within the MS/Doctoral Programs, the term Faculty Advisor refers to the faculty member assigned initially who works with the student to craft a plan of study to the particular needs relative to the student's academic and research aspirations.

MPH Program Advising
The College of Public Health utilizes a centralized model for advising MPH students. Students will receive advising regarding their plan of study, course sequencing of core and required courses, internship forms and process, and general programmatic policies and procedures from the MPH coordinators and student services professionals in the Office of Student Services and Alumni Affairs. When admitted, students are assigned a Faculty Mentor by their program. Students are encouraged to meet with their Faculty Mentor

regularly who helps the student conceptualize and plan their internship project, discuss elective coursework, provides career mentoring and post graduate planning.

MS, PhD, and DrPH Program Advising
Upon admission to the program, a Faculty Advisor is appointed for each MS and doctoral student, matching initial student interest to faculty experience or expertise. During the first two semesters in the program, students are encouraged to acquaint themselves with all faculty members and their research interests. In this way, the student is able to identify faculty members appropriate for each stage of their graduate career. Additionally, the student is encouraged to schedule a meeting with the Program Director to discuss which faculty member would best suit their interests and needs for potential dissertation directors and committee members.

In addition to the Faculty Advisor, the College employs an MS/Doctoral Coordinator, whose role it is to advise students regarding program, college, and university policies and procedures. Students meet with the MS/Doctoral Coordinator regularly for advice regarding all aspects of their academic progression, help with problem solving, and guidance related to accessing resources.

Graduate Annual Progress Report
All graduate students are required to complete an Annual Progress Report that describes their progress and accomplishments for the previous academic year. This report is completed early in the spring semester of each year. Students must review their report with their Faculty Mentor (MPH Program) or Faculty Advisor (MS/Doctoral Program). Programs review the reports, noting progress towards completion of required coursework, course grades, and other training experiences. When academic progress issues are identified, the program faculty, in consultation with the Office Student Services, direct the student to initiate a Graduate Retention Plan in which the student must develop a strategy and timeline for addressing the identified concern. The student then is required to seek input from their Faculty Advisor/Mentor and together, a final strategy is developed and monitored. The Graduate Retention Plan form is found in (**ERF H1**).

2) Explain how advisors are selected and oriented to their roles and responsibilities. (self-study document)

Student services professionals in the Office of Student Services and Alumni Affairs are recruited employing criteria that includes prior student advising experience and/or training and work experience in the public health field. Search committees for these positions are comprised of other members of the student services team, the Assistant Dean for Student Affairs, and a student from the program which the advisor will serve. Advisor applicants have been asked to make a presentation to the Search Committee that demonstrates their ability to communicate with a group of students. Once hired, the advisor is trained in their responsibilities by current advisors and immediate supervisor. Additionally, all advising personnel are required to a) participate in training related to University of Arizona data systems and advising processes and policies, b) participate in appropriate university committees, and c) receive cross training in positions within the Office of Student Services.

Graduate program Faculty Advisors/Mentors are initially assigned to students by the programs during the admissions process, matching student and faculty interest and experience areas when possible. Faculty Mentors/Advisors are oriented to their roles and responsibilities through a Faculty Handbook, meetings with the Assistant Dean of Student Affairs, the Associate Dean of Academic Affairs, the Office of Student Services and Alumni Affairs, Program Directors, and department meetings. Continuing education, regarding issues related to instruction, is required of faculty and monitored through the Annual Performance Review using UAVITAE (APR) process.

3) Provide a sample of advising materials and resources, such as student handbooks and plans of study, that provide additional guidance to students. (electronic resource file)

Handbooks, Orientation folder materials, Curriculum Guide (already appended for curriculum), the Hub (MPH Student internship/research resources, MPH Suggested Electives, MS/Doctoral Resources, Faculty Roles, Student Forms, etc.), Friday emails, Graduate College Guide to milestones and examples of undergraduate

advising materials can be found in the electronic resource file. Samples of these materials are located in **ERF H1.1**.

4) Provide data reflecting the level of student satisfaction with academic advising during each of the last three years. Include survey response rates, if applicable. Schools should present data only on public health degree offerings. (self-study document)

As part of an exit survey, graduating students are asked to rate their experiences and services offered by the college. All questions are scaled 1 thru 5, 1 being poor and 5 being excellent. Not all survey respondents complete all survey questions. *Between 2016 and 2017, exit survey questions related to OSSAA advising and services were modified.

Data from the last 3 years in **Table H1** indicate that students rated the advising provided by the Office of Student Services to fall between good to excellent range.

Table H1. Student Ratings of Advising

	2016		2017		2018	
Exit Survey Question Please rate OSSAA support	Average Rating	Number of Responses	Average Rating	Number of Responses	Average Rating	Number of Responses
BS	4.23	111				
MPH	4.41	88				
MS, DrPH, PhD	4.75	8				
Total	4.33	204				
*Exit Survey Question was modified in 2017 .						
Please rate advising provided by the Office of Student Services advisors and graduate coordinators?						
BS			4.41	41	4.48	163
MPH			4.56	46	4.45	143
MS , DrPH, PhD			4.25	4	4.60	10
Total			4.48	91	4.47	316
Please rate your experience with Academic advising provided by Faculty.						
BS	4.30	133	4.32	201	4.34	178
MPH	4.25	96	4.14	146	4.23	130
MS, DrPH, PhD	4.60	10	3.93	15	4.33	12
Total	4.29	239	4.23	362	4.29	320

5) Describe the orientation processes. If these differ by degree and/or concentration, provide a brief overview of each. (self-study document)

BS Program Orientation

All students new to the University who choose the pre-public health major are oriented to the College and the University by College of Public Health advising staff. There is a formal application to the major at which time the student meets with their academic advisor who orients them to the major. To better address orientation needs for a large student body, beginning in fall 2019, the college added an online orientation for majors, comprised of recorded modules that cover policies and processes, best practices for success,

as well as an introduction to public health. Students are required to take and pass a quiz related to the online materials.

MPH Program Orientation

Students are oriented to the MPH Program using a combination approach of online modules and a one day in-person event approach. Online modules include a short course in *Public Health Essentials in Action that covers the three core functions and 10 essential services for public health,* pertinent information about academic integrity, financial assistance, college policies and procedures, and the university's learning management system, D2L, are provided to students several weeks before school starts. Following their viewing of the modules, students are quizzed to determine their understanding of what they have heard/read. On the Friday before the fall semester, students are required to attend an all-day orientation which focuses on networking and cohort building. Issues that were not universally understood from the online modules are re-presented. An ambassador group presents tips to be successful and an alumni panel acquaints students with MPH graduates who are currently in the field and provides input to students about what they should be focusing on during school. An extended lunch with concentration faculty provides an opportunity to get to know their faculty. A presentation focused on issues related to inclusive excellence, civil discourse, and social justice is also included, as are short introductions to student organizations. Reinforcement and discussion of policies and procedures presented via the online modules occurs informed by the quiz response data.

MS/Doctoral Programs Orientation

The MS/Doctoral students also participate in the online orientation. In addition, the Master of Science and doctoral students are required to attend an in person orientation the two weekdays before the beginning of the fall term. Beginning in the fpring term, current MS and doctoral students work with the Graduate Program Coordinator to review student and faculty evaluations from the previous year to plan changes and new innovations. Whereas the focus of the online orientation is to provide essential, general information and expose students to college and campus resources, the in-person orientation is focused on relationship building with faculty, cohort building, practical information for the first year and the importance of self-care. Students evaluate each section of the orientation as it proceeds, providing important information for the following year's orientation. All in-person graduate students (MPH, MS and doctoral) convene Friday afternoon of the second day for presentations related to social justice and civil discourse, as well as presentations by representatives of student organizations.

Following Friday orientation activities, a New Student reception is held for graduate students and faculty.

6) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

H2. CAREER ADVISING

H2. Career Advising

The school provides accessible and supportive career advising services for students. Each student, including those who may be currently employed, has access to qualified faculty and/or staff who are actively engaged, knowledgeable about the workforce and sensitive to his or her professional development needs and can provide appropriate career placement advice. Career advising services may take a variety of forms, including but not limited to individualized consultations, resume workshops, mock interviews, career fairs, professional panels, networking events, employer presentations and online job databases.

The school provides such resources for both currently enrolled students and alumni. The school may accomplish this through a variety of formal or informal mechanisms including connecting graduates with professional associations, making faculty and other alumni available for networking and advice, etc.

1) **Describe the school or program's career advising and services. If services differ by degree and/or concentration, a brief description should be provided for each. Include an explanation of efforts to tailor services to meet students' specific needs. Schools should present data only on public health degree offerings. (self-study document)**

   Career services for College, regardless of program, are provided to students by the UA Student Engagement and Career Development Center, through the College of Public Health Office of Student Services and Alumni Affairs, and via faculty mentoring. All MPH Program faculty members are available to provide career advising through their individual expertise, current knowledge of opportunities in public health careers, and connections with public health practitioners. Graduate students are assigned a faculty member whose experience and expertise closely aligns with the student's career goals. Faculty mentors serve as a resource for students through connection and networking with professionals in their area of interest. The faculty mentor monitor the progress of the student annually by reviewing the progress report with the student and as such he/she is able to identify any needed area(s) of improvement and can make the appropriate recommendation(s) for improvement University career resources include large career fairs, employer info sessions, resume workshops and an online job board and interviewing system, called Handshake. The College hosts alumni panels, provides resume/cover letter workshops tailored for public health students, hosts a public health jobs listserv on which alums and college partners advertise positions and through which timely career guidance is provided, and most recently began offering annual career/internship fairs. Within the undergraduate program, the internship course offers students the opportunity to watch a "What's Next" module/video which focuses on transferable skills and job searching tips.

2) **Explain how individuals providing career advising are selected and oriented to their roles and responsibilities. (self-study document)**

   Within the Office of Student Services, career advising and provision of resources has been principally carried out by the Assistant Dean of Student and Alumni Affairs, with assistance from the Phoenix Coordinator and the Academic Advisor/Engagement Coordinator. The Assistant Dean has had 25 years of experience advising public health students, participating in career services training at the national level, regional and local levels. Prior to being hired by the College the Public Health, the other OSSAA members, who are alumni of the College, had established careers in public health. It is their experience in public health that made them appropriate for selection to these tasks. Beginning in late spring 2019, a 0.5 FTE portion of the Engagement Coordinator's position description was redefined as providing dedicated career advising. The Assistant Dean works together with these colleagues to identify promising practices in the field, develop and deliver appropriate workshops and provide other career resources, as needed. This team participates in the University's Career Council which offers campus career development activities, as well as other general professional development opportunities.

3) **Provide three examples from the last three years of career advising services provided to students and one example of career advising provided to an alumnus/a. For each category, indicate the number of individuals participating. (self-study document)**

OSSAA provides a variety of services to assist students to prepare for their public health careers. In addition to individual counseling it hosts a variety of workshops and job fairs. A summary of 5 activities that have been in place during the past 3 years are provided in the **Table H2**.

Table H2. Examples of Career Advising Services

	Year (n=number of activities)		
Activities	**2016 (n)**	**2017 (n)**	**2018 (n)**
Alumni Panels	108	105	120
Resume/Cover Letter Workshops	25	33	51
Career/Internship Fair		30	100
Jobs Listserv	1070 subscribers (current students and alumni)		
Undergrad Internship What's Next Video			73

Alumni often re-connect with the Assistant Dean to provide status updates and discuss possible career moves. When the alum mentions a desired geographic area, the Assistant Dean offers to contact other alumni in the desired area to ask if they would be willing to help a fellow alum in the job search, provide information about possible organizations in which they should be looking, or generally provide mentoring services.

MEZCOPH has an active alumni group on LinkedIn. Alumni and receive notifications on jobs, post-graduate training opportunities and other resources to enhance their career. Communication is two-way. Members post career questions and/or challenges and solicit advice from fellow members. The college is planning to hire an alumni relations staff person who will be able to use our professional LinkedIn network to help alumni who seek input on a job search, networking, resume review, etc.

4) Provide data reflecting the level of student satisfaction with career advising during each of the last three years. Include survey response rates, if applicable. Schools should present data only on public health degree offerings. (self-study document)

As part of an exit survey, graduating students are asked to rate the career services offered by the college. All questions are scaled 1 thru 5, 1 being poor and 5 being excellent. While student satisfaction ratings are above an acceptable or average score, steps have been taken to increase the human resources available to not only provide additional and enhanced services but to better articulate and promote these services widely, ensuring that students are aware of and are encouraged to seek these services. The ratings for these services are in **Table H3**.

The College is able to augment the many career services offered by the centralized UA Student Engagement and Career Development Center, tailoring and targeting them for MEZCOPH students to the public health workforce, and integrating them into coursework. The College's graduate outcomes reported to CEPH/ASPPH far exceed the national average, indicating that MEZCOPH students are successful in finding employment.

By reaching out to alumni for help, the college maintains close connections to a significant proportion of its graduates.

Table H3. Student Rating of Career Advising
Career Advising Related Question Student Exit Survey

	2016		2017		2018	
Total Survey Responses	258		414		373	
Exit Survey Question	Average Rating	Number of Responses	Average Rating	Number of Responses	Average Rating	Number of Responses
Please rate OSSAA career services advising						
BS	3.75	75	3.73	77	3.91	114
MPH	3.39	54	2.83	71	3.15	73
MS, DrPH, PhD	3.33	3	3.00	6	4.00	8
Total	3.59	132	3.28	154	3.63	195

5) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

H3. STUDENT COMPLAINT PROCEDURES

H3. Student Complaint Procedures

The school enforces a set of policies and procedures that govern formal student complaints/grievances. Such procedures are clearly articulated and communicated to students. Depending on the nature and level of each complaint, students are encouraged to voice their concerns to school officials or other appropriate personnel. Designated administrators are charged with reviewing and resolving formal complaints. All complaints are processed through appropriate channels.

1) Describe the procedures by which students may communicate any formal complaints and/or grievances to school or program officials, and about how these procedures are publicized. (self-study document)

Multiple avenues for students to bring complaints to program officials and college administration exist within MEZCOPH and are publicized in the academic program student handbooks, through the Student Hub of the college's website, through listserv messages and through the Student Affairs Committee.

Complaints concerning the following issues and the processes for reviewing and resolving these issues are outlined below:

Course/Instructor Concerns
When a concern regarding a particular course or instructor is raised by a student during a semester when the student is enrolled in a course, the student is advised that the issue must first be addressed in a conversation with the course instructor. Should the student feel that the concern was not adequately addressed or resolved, the student is instructed to make an appointment with the Assistant Dean for Student and Alumni Affairs, who is the administrator designated to hear student concerns. The Assistant Dean and the student discuss the concern and strategize possible additional approaches to handling the problem. If a determination is reached that the issue cannot be resolved without additional intervention, the Assistant Dean may discuss the situation with the instructor or forward the concern to the department head and/or program director of the instructor or course, the Associate Dean of Academic Affairs, or the Dean if necessary. Should similar concerns about a course or instructor be raised by multiple students, the Assistant Dean will schedule a meeting with the Department Head to apprise them of the situation. Students are regularly reminded that the end of the semester Teacher Course Evaluation (TCE) process provides an avenue for written feedback regarding course and instructors.

Curriculum Concerns
Concerns and suggestions regarding program curriculum can be raised by various means, such as bringing the issue to the Student Affairs Committee (comprised of student representatives from each program/concentration, the Assistant Dean for Student and Alumni Affairs, and student Services Professionals) or the College's Education Committee (comprised of academic program directors, the Associate Dean for Academic Affairs and the Assistant Dean for Student and Alumni Affairs) writing a letter to the Program Director, or outlining the concern on the TCE. The Student Affairs Committee provides an opportunity for students to discuss these types of issues with a larger group of their peers, often resulting in the ability to refine the issue and get broader input on possible suggested solutions. When a curriculum concern is identified and discussed in the Student Affairs Committee, the issue is documented in a letter that goes to the appropriate program director, who then addresses the issue in a program faculty committee meeting.

Grade Appeals
Grade appeals are handled through the University of Arizona Grade Appeal Policy/Process which is outlined briefly below. The full process with deadlines is found in the Electronic Resource File.

Physical Space Concerns
Complaints about the college's physical spaces are directed to the Assistant Dean for Financial Affairs and Physical Resources. These complaints most recently have included building thermostat settings, after-hours building access, need for a lactation room, and lack of a water bottle filling station.

Miscellaneous Concerns
The Assistant Dean for Student and Alumni Affairs is the designated administrator whose role it is to hear miscellaneous student complaints and determine how these issues should be addressed. Student services professionals within OSSAA often are the first to hear student concerns. These concerns are discussed with the Assistant Dean, who triages the response to responsible administrators or to the full Dean's Council. Additionally, the MEZCOPH Dean promotes an open-door policy for students to meet with her about any issue. The Dean hears the complaint and either resolves it or triages the issue to the responsible administrator for action

Suggestion Boxes
In addition to the in-person processes by which students are able to voice concerns, the College also provides physical, as well as online, suggestion boxes. These suggestion boxes allow students to identify concerns anonymously if desired. The online suggestion box, found on the Student Hub of the College's website, allows the student to identify the area/type of concern which then triggers the system to forward the suggestion to the appropriate administrator or office. If the student wishes to be contacted re follow-up, they must provide a name and contact info.

2) **Briefly summarize the steps for how a complaint or grievance filed through official university processes progresses. Include information on all levels of review/appeal. (self-study document)**

The College has established multiple avenues for students to raise issues of concern and students regularly use those systems to bring matters to the attention of responsible administrators. The UA Grade Appeal Process, which is applicable to all levels of UA students, is summarized here. The full process noting steps and deadlines in included in the Electronic Resource File.

Within the first five weeks after the semester in which the grade to be contested was awarded, the student must discuss the concerns with the course instructor, stating the reasons for questioning the grade. The student obtains requisite forms from Assistant Dean's office and reviews directions. The student attests in writing that they have informed the instructor and they intend to file a grade appeal. The student formulates a written appeal and submits it to the instructor and department head. The instructor sends a written response to the student explaining grading procedures, outlining how the grade was determined, and addressing other issues raised in the student's statement. If the instructor does not respond, or does not resolve the matter, the student readdresses appeal to department head. The department head considers the student's written statement, the instructor's written statement, and confers with each party. The department head informs the instructor and the student in writing of their recommendation. If a grade change is recommended, the instructor may refuse to accept the recommendation. The instructor notifies the department head and the student in writing of their decision. If the department head does not act on or resolve this matter to the student's satisfaction, student is required to readdress and submit the written appeal to the dean. The dean reviews the student's appeal and takes appropriate action. If the basis of the appeal is the fundamental fairness of treatment of the student by the instructor, the dean convenes a five-member committee to review the case. The committee should meet with the student and the instructor together in an attempt to resolve the difference. The committee considers all aspects of the case before making its recommendation. The committee writes a written report with recommendations and provides copies to the student, the instructor, the department head, and the dean. The dean makes a final decision after full consideration of the committee's recommendation

3) List any formal complaints and/or student grievances submitted in the last three years. Briefly describe the general nature or content of each complaint and the current status or progress toward resolution. (self-study document)

Table H3. Student Grievances and Outcomes

Nature of Complaint	Content	Progress toward Resolution
Access to teaching assistantships	Student does not feel it is fair policy to limit the number of teaching assistantships for master's level students	Discussed in Dean's Council. Determined that policy may be too lenient. Use of TAs will be evaluated by Asst. Dean of Student Affairs and Assoc. Dean for Academic Affairs and Asst. Dean of Financial Affairs
College statements regarding issues related to social injustice	Students want the college to issue proclamations of support against unjust situations when they arise	Faculty voted to include student representation on newly formed College Communication Committee which will discuss these issues
Faculty-Student Interaction	Students would benefit from more group interaction with the faculty in their programs and concentrations.	A semester doctoral student-faculty social event has been established.
Student involvement in faculty recruitments	Although students are included in search committees as members and in recruitment processes, they often don't feel their input is wanted or solicited	Dean's Council voted to require departments to establish official job descriptions for search committee members and outline specific roles that students are expected to play in recruitment processes
Convocation	Inadequate # of seats – complaint to UA President's Office	Tickets returned because they were not needed were redistributed to those who wanted more via a lottery system
Student threat	Student threatened another student with harm	University police contacted. who attended thesis defense. Both students graduated.
Inability to reach faculty in prompt fashion	Students complain that they try unsuccessfully via email and telephone to get responses from faculty	When OSSAA is notified of specific issue, faculty are informed of the complaint. Students and faculty are advised to establish good communicative relationships with faculty early in their degree pursuit rather than waiting until deadlines, crisis. The complaint recurs periodically.
Need dashboard on progress toward completion of college requirements	UA Graduate College has dashboard so students receive communication regarding progress toward completion of Grad College requirements. Students have complained that College should have same.	MEZCOPH Information Technology Office consulted and a plan for operationalizing will be established.
Lack of transparency regarding possible unsafe situations	Students concerned about a personnel issue that was under investigation.	Provided feedback at conclusion of investigation explaining that personnel issues need to be private and we were continuously monitoring the situation.

4) If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

H4. STUDENT RECRUITMENT AND ADMISSIONS

H4. Student Recruitment and Admissions

The school implements student recruitment and admissions policies and procedures designed to locate and select qualified individuals capable of taking advantage of the school's various learning activities, which will enable each of them to develop competence for a career in public health.

Describe the school's recruitment activities. If these differ by degree (eg, bachelor's vs. graduate degrees), a description should be provided for each.

The College has designed a recruitment plan to recruit, admit, and matriculate a strong, diverse, engaged student body. With a particular focus on recruiting underrepresented minority students, first generation college students, students from Arizona and the western regional states, and working professionals**,** the Office of Student Services and Alumni Affairs, as well as faculty, staff, and student Ambassadors, recruit for on campus and online programs at the undergraduate, graduate certificate, master's, and doctoral levels.

Recruitment strategies include our robust, easy to navigate website, extensive social media, internal events such as information sessions, graduate school fairs, virtual graduate school fairs, university-sponsored events, professional conferences, panels, K-12 pipeline recruitment, community college recruitment, participation in the Western Regional Graduate Programs (WRGP), Peace Corps Fellows, print materials, giveaways, undergraduate and graduate student Ambassadors, faculty outreach, alumni, and leveraging key partnerships. We have also purchased names from GRE and run NPR ads. Our full Recruitment Plan is located in the **ERF H4**.

Provide a statement of admissions policies and procedures. If these differ by degree (eg, bachelor's vs. graduate degrees), a description should be provided for each.

1. College holistic admissions policies (**ERF H4**) and procedures are designed to promote excellence in public health while meeting the mission of the College. The College seeks students of the highest caliber to promote community health and wellness in the Southwest, nationally, and globally. Application and admissions processes are managed by student services professionals within the Office of Student Services and Alumni Affairs. The Admissions Criteria and Deadlines are also on our website: https://publichealth.arizona.edu/graduate-students/admissions/programs.

Undergraduate Program
Once admitted to the University of Arizona, students may declare the pre-public health major at any time. Students newly admitted to the UA attend a pre-matriculation orientation facilitated by the public health advising team. In order to add the pre-public health major after the matriculation orientation period, students must meet the 2.5 GPA requirement, watch an information session video, and complete an information session worksheet and curriculum guide.

Students submit a formal application to the public health major. Admissions for the public health major occur three times per year--fall, spring, and summer—and each term offers a primary, secondary, and final deadline. To be eligible for admission to the public health major, students must meet the following requirements for both the main campus and online undergraduate programs:

- University of Arizona GPA of 2.5 or higher
- Completion of all pre-public health prerequisite courses with a grade of C or higher. Students may have up to 5 units of prerequisites still outstanding at the time of application.
- Completion of the major application, including:
    - Application form located on the Hub
    - Statement of Objectives and Career Plans, inclusive of the Mission and Values Statement
    - Resume

- Exhibiting appropriate behavior expected of public health students, including but not limited to strong academic integrity, respectful discourse, and professional engagement in all college, university, and community environments.

Academic advisors in the Office of Student Services review all applications to the major and make admissions decisions based on whether applicants meet the minimum admissions standards. If an applicant has unusual or questionable circumstances, the Undergraduate Sub-Committee of the Education Committee is consulted.

Graduate Programs

Admissions to the graduate programs are competitive. The target number of students admitted to each program is determined by each Program Director, in consultation with their program faculty, the Director of Admissions and the Assistant Dean for Student and Alumni Affairs. Consideration is given to the number of returning students, faculty workload capacity, funding available to support students at the doctoral level, capacity of student services resources, and optimal student cohort size.

Applications for all graduate programs are submitted and reviewed through SOPHAS. However, potential international students in a University of Arizona's (UA) approved micro-campus will apply to the dual degree program through the UA graduate college directly.

Admissions to the on campus graduate programs occur for fall matriculation only, and all programs have a priority deadline (December 1/January 5) and secondary deadline (March 1) to maximize the number and quality of applications to the program. Some programs also offer a late final deadline of May 15 for the fall. Admissions for the Online MPH program occur for fall, spring, and summer with one deadline for each term.

Applicants submit all materials to SOPHAS, including the following:

- Official transcripts from all undergraduate and graduate institutions attended in the U.S. and Canada
- WES evaluation of international transcripts
- Official standardized test scores, including GRE, MCAT, TOEFL, and IELTS
- Letters of recommendation
- Statement of purpose and objectives
- Mission and values statement
- Résumé/CV
- Description of which courses the applicant has taken to meet our undergraduate prerequisite courses, including college level math and biology for the MPH program, and additional math/science prerequisites for Biostatistics and Environmental Health Sciences program
- Entered work and volunteer experience, as well as relevant honors/awards received
- Doctoral applicants are also required to submit a Research Statement that outlines their research/practice interests and the faculty members with whom they wish to work
- Applicants to the PhD Biostatistics, PhD Environmental Health Sciences, and DrPH programs are also required to submit a writing sample that highlights their writing and research abilities

The MPH and MS programs require a prior bachelor's degree, whereas the PhD and DrPH programs require a prior master's degree in a relevant field. The PhD Health Behavior Health Promotion program admits students directly to the PhD program, in which case they earn an MSPH degree along the way to the PhD.

All admissions committees implemented a holistic admissions approach in 2017, utilizing a set of best practices around holistic admissions (located in the **ERF H4**). Every application is fully reviewed, and admissions decisions are based on the applicant's academic background, test scores, statement of purpose and objectives, relevant work/volunteer/internship experience, mission and values statement, resume/CV, research statement and writing sample (if applicable), and letters of recommendation. Commitment to public health, potential for success in graduate school, and availability of a faculty

advisor/mentor are also considered during the admissions process. Specific graduate admissions criteria are listed in greater detail at https://publichealth.arizona.edu/graduate-students/admissions/programs.

Each program handles admissions decisions differently. For all MS, PhD, and DrPH programs, at least two faculty members review each application, and make a recommendation to admit, interview, or deny to the program's admissions committee. Some doctoral programs interview top applicants before an admissions decision is made. The admissions committee, led by the Program Director, makes the final admissions decision.

In the campus-based MPH program, six programs--Biostatistics, Environmental Health Sciences, Epidemiology, Health Services Administration, One Health, and Public Health Practice--have two faculty members review each application and make a recommendation to their program's admissions committee. Three other programs—Family and Child Health, Health Behavior Health Promotion, and Public Health Policy and Management—ask the Office of Student Services and Alumni Affairs to conduct a first review of each application, and make a recommendation to admit, deny, or discuss. In this case, notes regarding the applicant's qualifications and any red flags are reviewed with the Program Director and/or a small committee. Faculty members make the final admissions decisions on all applications.

For the online MPH program, the faculty have given Pearson a set of admissions criteria and minimum standards. The Associate Director of Recruitment Services for Pearson reviews all applications. If an applicant meets the minimum qualifications and does not have any red flags, they are recommended for admission. If an applicant does not meet minimum qualifications and/or has red flags, the application is sent to the Program Director for an admissions decision. All applications are reviewed by the Associate Dean for Academic Affairs before a recommendation to admit is submitted to the Graduate College.

Official admissions for all graduate programs occur through the UA Graduate College. If recommended for admission, applicants are also required to submit a short supplemental application through the UA Graduate College. MEZCOPH admissions committees make recommendations to the Graduate College, and the Graduate College confirms that the applicant has a bachelor's degree (and master's degree for doctoral applicants) from a 4-year, accredited institution with a 3.0 GPA, as well as required English proficiency exams for international applicants. The admissions GPA is calculated based on the cumulative GPA, last 60 undergraduate credits GPA, 6 credits taken at the graduate level at the UA, or 12 credits taken at the graduate level at another institution.

Occasionally, MEZCOPH recommends an applicant who does not meet the GPA requirement. MEZCOPH must write a request to waive the 3.0 GPA requirement, including compelling reasons for doing so, such as an applicant's exceptional work experience, high test scores, or strong letters of recommendation. In addition, we must write a mentoring plan in which a faculty member agrees to mentor the student and connect them with resources in order to support their success in graduate school. The Graduate College makes the final admissions decision.

Select at least one of the measures that is meaningful to the school and demonstrates its success in enrolling a qualified student body. Provide a target and data from the last three years in the Format of Template H4-1. In addition to at least one from the list, the school may add measures.

Template H4-1. Outcome Measures for Recruitment and Admissions				
Outcome Measure	**Target**	**2016-2017**	**2017-2018**	**2018-2019**
GPA*				
Average GPA of on campus undergraduate students newly admitted to the public health major	3.0	3.2	3.25	3.27
Average GPA of online undergraduate students newly admitted to the public health major**	3.0	3.16	3.30	3.21
Average GPA of newly enrolled on campus MPH and MS students	3.3	3.54	3.62	3.61

Average GPA of newly enrolled online MPH students	3.3	3.47	3.51	3.46
Average GPA of newly enrolled PhD and DrPH students	3.6	3.81	3.82	3.75
GRE†				
Average GRE of newly enrolled on campus MPH and MS students	304	303	304	304
Average GRE of newly enrolled online MPH students	304	304	304	306
Average GRE of newly enrolled PhD and DrPH students	310	310	309	311
Underrepresented Minority Students‡				
Percentage of newly admitted undergraduate public health majors who are underrepresented minority students	35%	47.5%	43.5%	35.8%
Percentage of newly enrolled graduate students who are underrepresented minority students	35%	34.0%	33.8%	36.5%
1st Generation College Students				
Percentage of newly admitted undergraduate public health majors who are first generation college students	35%	44.1%	39.9%	33.1%
Percentage of newly enrolled graduate students (MPH, MS, PhD, DrPH) who are first generation college students	30%	29.6%	33.9%	29.6%
Arizona Residents				
Percentage of newly admitted undergraduate public health majors who are Arizona residents	75%	83.7%	74.8%	80.2%
Percentage of newly enrolled graduate students who are Arizona residents	55%	61.2%	58.5%	58.7%
*Undergraduate GPA is based on cumulative UA GPA at the time of admission. Per UA Graduate College policy, Graduate GPA is calculated based on the highest of cumulative, last 60 credits, or graduate level GPA.				
**The online BS program began in 2016-2017.				
†GRE scores are total of quantitative and verbal GRE score.				
‡Underrepresented minority is defined here as Black/African American, Hispanic/Latinx, and American Indian/Alaskan Native				

MEZCOPH has continually been able to enroll high quality students and has a significant percent who are under-represented minorities and first generation students.

If applicable, assess strengths and weaknesses related to this criterion and plans for improvement in this area.

Not Applicable

H5. PUBLICATION OF EDUCATIONAL OFFERINGS

H5. Publication of Educational Offerings

Catalogs and bulletins used by the school to describe its educational offerings must be publicly available and must accurately describe its academic calendar, admissions policies, grading policies, academic integrity standards and degree completion requirements. Advertising, promotional materials, recruitment literature and other supporting material, in whatever medium it is presented, must contain accurate information.

1) **Provide direct links to information and descriptions of all degree schools and concentrations in the unit of accreditation. The information must describe all of the following: academic calendar, admissions policies, grading policies, academic integrity standards and degree completion requirements.**

   Direct Links to information and descriptions of all degrees and concentrations in the Mel and Enid Zuckerman College of Public Health:

   Academic Programs

   - MPH
   - Dual Degrees
   - Online MPH
   - MS & PhD Programs
   - DrPH
   - Certificate Programs
   - Non-Degree Seeking
   - Distance Learning
   - Study Abroad Programs
   - Course Offering Schedules

   MEZCOPH Academic Curriculum Guide
   University of Arizona Course Catalog
   University of Arizona Academic Calendars
   University of Arizona Academic Policies