



THE UNIVERSITY OF ARIZONA

**Mel & Enid Zuckerman  
College of Public Health**

**Spring 2017  
MPH Internship Conference**

**Friday, April 14, 2017  
11:30am – 5:00pm**

**Drachman Hall  
Phoenix Biomedical Campus**

**Mel and Enid Zuckerman College of Public Health**

# **Disability & Stigma**

## **The Far-Reaching Impacts within Public Health**

### **Keynote Speaker:**

#### **Ron Barber**

Before becoming a Member of Congress in 2012, Barber was the Director of a five county Head Start agency in Southern Arizona and later had a 32-year career with the Arizona Division of Developmental Disabilities (DDD), serving as District Administrator and State Director. He resigned in 2006 to become the Community Outreach Director for the Giffords for Congress campaign. Following her election victory in 2006, Congresswoman Gabrielle Giffords appointed Barber as her District Director. He was responsible for all District operations and had the lead for Giffords on policy issues including immigration reform, border security, health care, equality for women and the LGBT community and education.

On January 8, 2011, Barber was standing beside Congresswoman Giffords at a constituent event when an assassin shot the congresswoman, Barber, and 17 others. Six people were killed. Two weeks after the shooting, Barber established The Fund for Civility, Respect and Understanding, which focuses on promoting civil political discourse, preventing bullying in schools, and reducing the stigma associated with mental illness. After taking time to recover, he returned to his job as District Director six months later.

In January 2012, Giffords resigned from office to focus on her recovery. She asked Barber to run for her seat. He won the special election, and was sworn into office in June of 2012. Later that year, he was re-elected in November 2012. In Congress, Barber served on the House Armed Services Committee, the Homeland Security Committee (ranking member on the Oversight Sub-Committee), and the House Small Business Committee. He also was a member of the Bi-Partisan Working Group, The New Democrat Coalition, and The Mental Health Caucus, and was Vice Chair of the Gun Violence Prevention Task Force.

Barber currently serves on the Board of Directors of several community-based organizations in Tucson, including the January 8 Memorial Foundation, CEDO (a bi-national environmental organization working to preserve marine life on The Sea of Cortez in Mexico), The Fox Theatre Foundation, the Arizona Coalition for Commonsense (an advocacy group for gun safety laws), The Loft Cinema Board, and The Advisory Council for Death Penalty Alternatives Arizona. He also is a member of the Advisory Council to the Secretary of the U.S. Department of Homeland Security, the Advisory Council to the National Committee to Preserve Social Security and Medicare, and the Board of End Citizens United.

Barber was born in England and immigrated to the United States when he was 15. He is a naturalized American Citizen. He lives in Tucson with Nancy, his wife of 50 years. Ron and Nancy have two daughters and five grandchildren.

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## **Acknowledgements**

All of our wonderful internship sites  
throughout the state, nation, and world with  
whom we work to improve the state of public health

The students and faculty of MEZCOPH,  
who are central to the success of the MPH program

The Office of Student Services and Alumni Affairs  
for their outstanding efforts, support, and encouragement

The keynote speaker for sharing his experience and knowledge

## **Internship Conference Volunteers**

We would like to thank all of the volunteers for their time  
and effort in making this a wonderful event

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Htay Hla | Jason Hollister  
Mike Martelle | Teresa Portela

**The University of Arizona  
Mel and Enid Zuckerman  
College of Public Health**

**Spring 2017  
MPH Internship Conference**

**April 14, 2017**

**Conference Planning Committee**

***Co-Chairs:***

Vanessa Moore | Teresa Sosa

***Committee Members:***

Lindsey DeBoer | Caitlin Finan | Camille Gonzalez | Allie Kaufman  
Nadine Tschida | Katey Redmond | Arianna Resendiz | Celina Virgen

**Office of Student Services and Alumni Affairs:**

Tanya Nemec  
Ryley Tegler  
Kim Barnes  
Chris Tisch, Assistant Dean

# Schedule of Events

- 11:00a-11:30a** Registration  
(Pharmacy side of **Drachman Hall, B109 / Phoenix Biomedical Campus, Building 2, Room 2306**)
- 11:30a-11:35a** Welcome  
*Co-Chairs:* Vanessa Moore and Teresa Sosa  
(**Drachman Hall, B109 / Phoenix Biomedical Campus, Building 2, Room 2306**)
- 11:35a-12:30p** Keynote Speaker  
(**Drachman Hall, B109 / Phoenix Biomedical Campus, Building 2, Room 2306**)
- 12:30p-1:00p** Break
- 1:00p-5:00p** Internship Presentations (**Drachman Hall A**)
- Session I:** Drachman Hall, Room A112
- Session II:** Drachman Hall, Room A114
- Session III:** Drachman Hall, Room A116  
Phoenix Building 2, Room 2306
- Session IV:** Drachman Hall, Room A118
- Session V:** Drachman Hall, Room A119
- Session VI:** Drachman Hall, Room A120
- Session VII:** Drachman Hall, Room A122
- Session VIII:** Phoenix Building 2, Room 2206
- Session IX:** Phoenix Building 2, Room 2206  
(8:40a-11:00a)
- 5:00p-6:00p:** Reception  
(**Walkway of Wellness, Tucson; Phoenix Biomedical Campus, Building 4**)

## Presenters

<b>Name</b>	<b>Concentration*</b>	<b>Room**</b>	<b>Time</b>	<b>Page</b>
Jessica Allen	FCH GLOBAL	A122	4:20 pm	117
Joaquin Amaro	HSA	A116 / 2306-Phx	1:00 pm	59
Elizabeth Amoa-Awuah	FCH GLOBAL	A114	3:40 pm	55
Breanne Anderson	EPI	A112	4:00 pm	44
Keith Arnold	MD/MPH	A122	1:00 pm	107
Ashley Assadi	PHP	A116 / 2306-Phx	4:40 pm	70
Chisom Asuzu	EPI	A112	3:00 pm	41
Christina Azzolina	HBHP	A122	3:40 pm	115
Gabriela Barillas-Longoria	HBHP	A122	2:20 pm	111
Jordan Bastian	EPI	A118	3:40 pm	80
Kelly Belz	HBHP	A114	2:40 pm	52
Lindsay Bingham	HBHP	A122	4:00 pm	116
Kristi Bischoff	EPI	A118	2:20 pm	76
Brittany Boegemann	PHPM	A120	2:40 pm	100
Shannon Bryan	FCH MCH	A114	4:00 pm	56
Arlene Campillo	HSA	A116 / 2306-Phx	2:40 pm	64
Alexandra Cappelli	EOH	A119	1:40 pm	85
Ana Casanova Monroy	MD/MPH	A120	4:20 pm	104
Isaac Cisneros	EOH	A119	2:40 pm	88
Brett Dechambre	HBHP	A122	1:20 pm	108
Zaida Dedolph	PHP	2206-Phx	3:00 pm	125
Alexandra Duello	HBHP	A122	3:00 pm	113
Heidi Dugi	FCH MCH	A122	1:40 pm	109
Brittany Ebbing	MD/MPH	2206-Phx	8:40 am	132
Andrew Ellis	PHPM	A120	3:00 pm	101
Nathan Eyde	HSA	A116 / 2306-Phx	1:20 pm	60
Megan Fah	MD/MPH	2206-Phx	9:00 am	133

## Presenters

<b>Name</b>	<b>Concentration*</b>	<b>Room**</b>	<b>Time</b>	<b>Page</b>
Seth Fritsch	PHP	2206-Phx	4:20 pm	129
Marco Gallegos	EOH	A119	1:20 pm	84
Ana Garcia	HSA	A116 / 2306-Phx	1:40 pm	61
Lalida Gentry	HBHP	A122	2:40 pm	112
Siena Hall	EOH IH	A119	3:30 pm	89
Jeffery Hanna	PHP	2206-Phx	3:40 pm	127
Cody Havens	BIOS	A119	3:40 pm	91
Laura Hegarty	EPI	A118	4:00 pm	81
Taylor Ipsen	PHP	2206-Phx	4:40 pm	130
Gabriella Keahon	PHP	2206-Phx	2:20 pm	123
Amanda Kendall	EPI	A112	3:40 pm	43
Sajjad Khan	FCH GLOBAL	A120	1:00 pm	95
Caroline King	BIOS	A119	4:00 pm	92
Rachel Kreisberg	EPI	A112	1:40 pm	37
Raymond Larez	HBHP	A120	2:00 pm	98
Kirstin Lathrop	PHP	2206-Phx	1:00 pm	119
Dong Hoon Lee	EPI	A118	2:00 pm	75
Naran Lodhia	FCH GLOBAL	A118	1:00 pm	72
Breanne Lott	PHP	2206-Phx	3:20 pm	126
Xin Lou	EOH	A119	3:20 pm	90
William Macdonald	PHPM/JD	A120	4:20 pm	105
Nishita Maganty	PHPM	A116 / 2306-Phx	4:00 pm	69
Tanya Maldonado	PHP	2206-Phx	2:00 pm	122
Michelle Martin	EPI	A112	2:00 pm	38
Sarah Martinez	FCH MCH	A122	3:20 pm	114
Michèle Mattle	PHP	2206-Phx	1:40 pm	121
Christopher McCabe	MD/MPH	2206-Phx	9:20 am	134



## Presenters

<b>Name</b>	<b>Concentration*</b>	<b>Room**</b>	<b>Time</b>	<b>Page</b>
Brittani Miller	EPI	A112	3:20 pm	42
Sam Mirsaeidi-Farahani	PHPM	A120	3:40 pm	103
Sowrov Mondol	PHPM	A120	3:20 pm	102
Joseph Moseley	MD/MPH	2206-Phx	9:40 am	135
Sarahna Moyd	FCH MCH	A114	1:20 pm	48
Christian Mpody	EPI	A118	1:20 pm	73
Erika Nacim	FCH GLOBAL	A118	3:00 pm	78
Erin Nelson	MD/MPH	2206-Phx	10:00 am	136
Alejandra Ochoa	HBHP	A114	3:20 pm	54
Linda Olsen	PHPM	A116 / 2306-Phx	2:00 pm	62
Javier Ortega	HBHP	A120	2:20 pm	99
Anna Ortiz	FCH GLOBAL	A118	3:20 pm	79
Jane Otenyo	FCH MCH	A114	2:00 pm	50
Christiana Owusu-Ankomah	FCH MCH	A114	2:20 pm	51
Nikhita Pakki	PHPM	A116 / 2306-Phx	4:00 pm	68
Jaime Perkins	MD/MPH	2206-Phx	10:20 am	137
Andrew Pickering	HSA	A116 / 2306-Phx	3:20 pm	66
Elinora Price	BIOS	A119	4:20 pm	93
Elizabeth Reardon	FCH GLOBAL	A114	4:20 pm	57
Benjamin Richmond	PHP	A116 / 2306-Phx	3:40 pm	67
Amanda Rodgers	FCH MCH	A114	3:00 pm	53
Darlynn Rojo-Wissar	FCH MCH	A114	1:00 pm	47
James Romine	EPI	A112	2:20 pm	39
Corinna Sabaque	FCH MCH	A122	2:00 pm	110
Christopher Schmidt	EPI	A112	2:40 pm	40
Nicholas Schweers	EPI	A118	2:40 pm	77

<b>Name</b>	<b>Concentration*</b>	<b>Room**</b>	<b>Time</b>	<b>Page</b>
Nirmal Singh	EPI	A118	1:40 pm	74
Kaitlyn Snyder	EOH	A119	1:00 pm	83
Jaze Sollars	HBHP	A120	1:40 pm	97
Sheila Soto	PHPM	A116 / 2306-Phx	2:20 pm	63
Shawn Dylan Staack	EOH IH	A119	2:00 pm	86
Tara Swartz	PHP	2206-Phx	4:00 pm	128
Edward Telmo	HSA	A116 / 2306-Phx	3:00 pm	65
Yvonne Tran	EPI	A112	1:20 pm	36
Beverley Trutter	FCH GLOBAL	A120	1:20 pm	96
Neal Tuomi	EOH IH	A119	2:20 pm	87
Janine Vanlandingham	FCH MCH	A114	1:40 pm	49
Jared Wahl	EPI	A112	1:00 pm	35
Jordan Westra	BIOS	A112	4:20 pm	45
Melissa Zavala	PHP	2206-Phx	1:20 pm	120
Justin Zeien	PHP	2206-Phx	2:40 pm	124
Olivia Zoph	MD/MPH	2206-Phx	10:40 am	138

**\*Concentrations and Dual Degree Designations**

AMP – Accelerated Masters Program

BIOS – Biostatistics

EOH – Environmental and Occupational Health

EOH IH - Environmental and Occupational Health Industrial Hygiene Track

EPI – Epidemiology

FCH MCH - Family and Child Health Maternal and Child Health Track

FCH GLOBAL - Family and Child Health Global Track

HSA – Health Services Administration

HBHP - Health Behavior Health Promotion

MD/MPH- Medical Doctor/Master of Public Health

PHP - Public Health Practice

PHPM – Public Health Policy & Management

**\*\*Rooms:**

All rooms listed are found on the first floor of Drachman Hall.

Phoenix Biomedical Campus presentations are located in Building 2, Rooms 2306 and 2206.

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## Presenters Schedule

<b>Time</b>	<b>Session I <i>Room A112</i></b>	<b>Session II <i>Room A114</i></b>	<b>Session III <i>Room A116 / 2306-Phx</i></b>
<b>1:00</b>	J. Wahl	D. Rojo-Wissar	J. Amaro (TUC)
<b>1:20</b>	Y. Tran	S. Moyd	N. Eyde (TUC)
<b>1:40</b>	R. Kreisberg	J. Vanlandingham	A. Garcia (TUC)
<b>2:00</b>	M. Martin	J. Otenyo	L. Olsen (TUC)
<b>2:20</b>	J. Romine	C. Owusu- Ankomah	S. Soto (TUC)
<b>2:40</b>	C. Schmidt	K. Belz	A. Campillo (PHX)
<b>3:00</b>	C. Asuzu	A. Rodgers	E. Telmo (PHX)
<b>3:20</b>	B. Miller	A. Ochoa	A. Pickering (PHX)
<b>3:40</b>	A. Kendall	E. Amoa-Awuah	B. Richmond (TUC)
<b>4:00</b>	B. Anderson	S. Bryan	N. Pakki (PHX)
<b>4:20</b>	J. Westra	E. Reardon	N. Maganty (PHX)
<b>4:40</b>			A. Assadi (PHX)

<b>Time</b>	<b>Session IV <i>Room A118</i></b>	<b>Session V <i>Room A119</i></b>	<b>Session VI <i>Room A120</i></b>	<b>Session VII <i>Room A122</i></b>
<b>1:00</b>	N. Lodhia	K. Snyder	S. Khan	K. Arnold
<b>1:20</b>	C. Mpody	M. Gallegos	B. Trutter	B. Dechambre
<b>1:40</b>	N. Singh	A. Cappelli	J. Sollars	H. Dugi
<b>2:00</b>	D. Hoon Lee	S. Staack	R. Larez	C. Sabaque
<b>2:20</b>	K. Bischoff	N. Tuomi	J. Ortega	G. Barillas- Longoria
<b>2:40</b>	N. Schweers	I. Cisneros	B. Boegemann	L. Gentry
<b>3:00</b>	E. Nacim	S. Hall	A. Ellis	A. Duello
<b>3:20</b>	A. Ortiz	X. Lou	S. Mondol	S. Martinez
<b>3:40</b>	J. Bastian	C. Havens	S. Mirsaeidi- Farahani	C. Azzolina
<b>4:00</b>	L. Hegarty	C. King	A. Monroy	L. Bingham
<b>4:20</b>		E. Price	W. Macdonald	J. Allen
<b>4:40</b>				

## Phoenix Only

<b>Time</b>	<b>Session VIII 2206</b>
<b>1:00</b>	K. Lathrop
<b>1:20</b>	M. Zavala
<b>1:40</b>	M. Mattle
<b>2:00</b>	T. Maldonado
<b>2:20</b>	G. Keahon
<b>2:40</b>	J. Zeien
<b>3:00</b>	Z. Dedolph
<b>3:20</b>	B. Lott
<b>3:40</b>	J. Hanna
<b>4:00</b>	T. Swartz
<b>4:20</b>	S. Fritsch
<b>4:40</b>	T. Ipsen

<b>Time</b>	<b>Session IX (AM) 2206</b>
<b>8:40</b>	B. Ebbing
<b>9:00</b>	M. Fah
<b>9:20</b>	C. McCabe
<b>9:40</b>	J. Moseley
<b>10:00</b>	E. Nelson
<b>10:20</b>	J. Perkins
<b>10:40</b>	O. Zoph

## Session I – Disease Surveillance and Prevention

*(Drachman Hall, Room A112)*

- 1:00 UTILIZING SOCIAL MEDIA APPLICATIONS AS A PLATFORM FOR IMPLEMENTING A SYPHILIS PREVENTION CAMPAIGN IN PIMA COUNTY. **J. Wahl.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: E. Shahar, MD, MPH. Site and Preceptor: Pima County Health Department - Francisco Garcia, MD, MPH.
- 1:20 RISK FACTORS FOR GONORRHEA IN UTAH: A MATCHED CASE-CONTROL STUDY. **Y. Tran.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: E. Shahar, MD, MPH. Site and Preceptor: Utah Department of Health - Joel Hartsell, MPH.
- 1:40 HELICOBACTER PYLORI AND GASTRIC CANCER IN NATIVE AMERICANS. **R. Kreisberg.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: R. Harris, PhD, MPH. Site and Preceptor: University of Arizona College of Public Health - Eyal Oren, PhD, MS.
- 2:00 SELF-ASSESSMENT OF SUN SENSITIVITY AND RISK FACTORS IN THE HEALTHY LIFESTYLES AND CANCER RISK PILOT STUDY. **M. Martin.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: R. Harris, PhD, MPH. Site and Preceptor: Mel and Enid Zuckerman College of Public Health - Leslie Dennis, PhD, MS.
- 2:20 FEASIBILITY OF A SMARTPHONE-BASED SYNDROMIC SURVEILLANCE SYSTEM FOR COMMUNITY HEALTH WORKERS IN NORTHERN MEXICO. **J. Romine.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Ernst, PhD, MPH. Site and Preceptor: Sonora Health Department - Enrique Villalpando Canchola, PhD.
- 2:40 EVALUATION OF THE NATIONAL SURVEILLANCE SYSTEM FOR BABESIOSIS. **C. Schmidt.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Ernst, PhD, MPH. Site and Preceptor: Centers for Disease Control and Prevention - Susan Montgomery, DVM, MPH.



- 3:00 DEVELOPING THE 2015 MARICOPA COUNTY POISON CONTROL ANNUAL REPORT. **C. Asuzu.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Kacey Ernst, PhD, MPH. Site and Preceptor: Maricopa County Public Health Department (MCPHD) - Vjollca Berisha, MD, MPH; Rasneet Sandhu Kumar, MPH.
- 3:20 A LEARNING EXPERIENCE IN BORDER HEALTH: UPGRADE OF BINATIONAL CASES SURVEILLANCE DATABASE AND ESTABLISHMENT OF A NEW METHOD FOR INFORMATION SHARING. **B. Miller.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Ernst, PhD, MPH. Site and Preceptor: Office of Border Health, Arizona Department of Health Services - Robert Guerrero, MBA and Mariana Casal, MD, MPH.
- 3:40 GENDER NORMS AND VECTOR CONTROL: A CROSS-SECTIONAL SURVEY IN WESTERN KENYA. **A. Kendall.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Ernst, PhD, MPH. Site and Preceptor: Maseno University, Kisumu, Kenya - Bernard Guyah, PhD, MSc.
- 4:00 WOMEN'S SERVICES IN RURAL ARIZONA. **B. Anderson.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Sydney Pettygrove, PhD. Site and Preceptor: Arizona Rural Women's Health Network - Leah Meyers, MSW.
- 4:20 GEOGRAPHIC VARIATION IN ANALGESIC USE AMONG MEDICARE BENEFICIARIES WITH CHRONIC LOWER EXTREMITY OSTEOARTHRITIS OR LOWER BACK PAIN. **J. Westra.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: D. Roe, DrPH. Site and Preceptor: University of Arizona College of Pharmacy - Jenny Lo-Ciganic, PhD.

## Session II – Promoting Health for Families, Children, and Vulnerable Populations

*(Drachman Hall, Room A114)*

- 1:00 NIGHTTIME ROUTINES AND SLEEP DISTURBANCE IN FOSTER CHILDREN IN A GROUP HOME SETTING. **D. Rojo-Wissar.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: C. Cutshaw, PhD. Site and Preceptor: Gap Ministries - Maureen Gerard, PhD.
- 1:20 IDENTIFYING THE BARRIERS AND FACILITATORS TO BREASTFEEDING FOR MOTHERS PARTICIPATING IN THE MARICOPA COUNTY DEPARTMENT OF PUBLIC HEALTH SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN (WIC) PROGRAM. **S. Moyd.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: V. Nuño, PhD, MSW. Site and Preceptor: Maricopa County Department of Public Health - Jennifer Dykhuizen, MPH.
- 1:40 PROMOTING POSITIVE MENTAL HEALTH IN EARLY ADOLESCENT GIRLS THROUGH THE GROWING GIRLS PROGRAM. **J. Vanlandingham.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Velia Leybas Nuño, PhD, MSW. Site and Preceptor: Estes Elementary School - Joni Rubinstein, M.Ed.
- 2:00 POSITIVE YOUTH DEVELOPMENT PROGRAMMING THROUGH COMMUNITY PARTNERSHIP. **J. Otenyo.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: V. Nuño, PhD, MSW. Site and Preceptor: Estes Elementary School - Colleen Frederick, Masters of Education and Educational Leadership.
- 2:20 FOOD FOR THOUGHT: THE REVISION, IMPLEMENTATION, AND EVALUATION OF EL RIO'S FAMILY COOKING PROGRAM. **C. Owusu-Ankomah.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: V. Nuño, PhD, MSW. Site and Preceptor: El Rio Community Health Center - Diane Haeger, MBA.

- 2:40 TAPPING INTO PREGNANCY PREVENTION: THE DESIGN AND IMPLEMENTATION OF AN AFTER SCHOOL PROGRAM FOR GIRLS. **K. Belz.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: V. Nuño, PhD, MSW. Site and Preceptor: Teenage Parent Program at Sunnyside High School - Monica Luna.
- 3:00 BAR STAFF PERCEPTIONS OF SEXUAL AGGRESSION IN BAR SETTINGS. **A. Rodgers.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Koss, PhD. Site and Preceptor: Relationship Violence Programs Office, The University of Arizona - Elise Lopez, MPH, DrPH ABD.
- 3:20 PROVING AMISTADES TOOLS FOR THE IMPLEMENTATION OF YOUR STORY PROJECT, AN INTERVENTION THAT PROVIDES SUBSTANCE ABUSE AND HIV/AIDS EDUCATION. **A. Ochoa.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: N. Yuan, PhD, MPH. Site and Preceptor: Amistades Inc. - Ricardo M. Jasso BA in Psychology Master of Education in Counseling and Guidance .
- 3:40 HELP-SEEKING BEHAVIOR AND PERCEPTIONS OF SEXUAL AGGRESSION IN BARS OF LGBTQIA+ UNDERGRADUATE STUDENTS. **E. Amoa-Awuah.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Koss, PhD. Site and Preceptor: Sexual Assault Prevention Programs - Elise Lopez, MPH.
- 4:00 EVALUATION AND RECOMMENDATIONS FOR THE NEBRASKA DEPARTMENT OF HEALTH AND HUMAN SERVICE PREGNANCY RISK ASSESSMENT MONITORING SYSTEM. **S. Bryan.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Koss, PhD. Site and Preceptor: Nebraska Department of Health and Human Services Division of Public Health - Maya Chilese, MA.
- 4:20 PREPARING FOR ZIKA: HEALTH DISPARITIES, GENDER, RACE, AND POVERTY IN BRAZIL. **E. Reardon.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Koss, PhD. Site and Preceptor: GDEFAM (Fortaleza, Brazil) - Cicera Felipe Silva, M.Ed.

**Session III – Policy Development and Health Services Administration**  
(*Drachman Hall, Room A116/ Phoenix Building 2, Room 2306*)

- 1:00 HEALTHCARE ADVOCACY IN ARIZONA: IMPROVING RELATIONSHIPS BETWEEN HEALTHCARE SYSTEMS AND LEGISLATIVE CANDIDATES IN DISTRICT 14. **J. Amaro.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Arizona Hospital and Healthcare Association - Barbara Fanning.
- 1:20 COMBATING CLOSTRIDIUM DIFFICILE INFECTIONS IN ARIZONA NURSING HOMES. **N. Eyde.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Health Services Advisory Group - Keith Chartier, MPH, BA.
- 1:40 EVALUATING RURAL PRECEPTORS' IMPACT IN RECRUITMENT OF FUTURE PHYSICIANS IN RURAL SITES. **A. Garcia.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Arizona Telemedicine Program - Ronald Weinstein, MD; Amy Waer, MD.
- 2:00 OVERCOMING CHALLENGES TO POPULATION HEALTH MONITORING AFTER PRIMARY CARE INTEGRATION INTO A BEHAVIORAL HEALTH SETTING. **L. Olsen.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: COPE Community Services, Inc. - Carl Anderson, BA CPHQ.
- 2:20 TRAINING AND CREATING HEALTH CURRICULUM FOR FARMWORKING CHWS IN WINCHESTER HEIGHTS. **S. Soto.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: SEAHEC - Gail Emrick, MPH.
- 2:40 HIV/HEPATITIS C OUTBREAK RESPONSE PLAN FOR MOHAVE COUNTY. **A. Campillo.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Arizona Department of Health Services (AZDHS) - John Saperro, BS, ML.

- 3:00      **APPROACH TO MEDICAL FACILITIES LICENSING. E. Telmo.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Arizona Department of Health Services - Mr. Jerome Przystup, B.S. Family and Consumer Science.
- 3:20      **IMPROVING DATA GATHERING TECHNIQUES AND CURRICULUM IN YOUTH NUTRITION AND EXERCISE CLASSES FOR SPANISH-SPEAKING HOUSEHOLDS. A. Pickering.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Esperanca Organization, Kuban Elementary School, Mtn. View Elementary School - Marisela Escamilla-Bachelor's, education. Maria Valenzuela, degrees unknown.
- 3:40      **MOTHERS IN ARIZONA MOVING AHEAD: EMPOWERING AND IMPROVING THE HEALTH OF MOTHERS IN POVERTY. B. Richmond.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D. Campos-Outcalt, MD, MPA. Site and Preceptor: Pima County Community Services, Employment and Training Department - Bonnie Bazata, MA.
- 4:00      **ARIZONA DEPARTMENT OF HEALTH SERVICES ROLE IN POLICY IMPLEMENTATION AND RESEARCH. N. Pakki.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: L. Barraza, JD, MPH. Site and Preceptor: Arizona Department of Health Services - Dr. Mark Martz, PhD.
- 4:20      **THE EFFECT OF FORMAL TRAINING ON INTERPRETATION SERVICES IN A HEALTHCARE SETTING. N. Maganty.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: L. Barraza, JD, MPH. Site and Preceptor: Children's Clinics - Mimi Coomler, RN, MHA.
- 4:40      **INTERPROFESSIONAL SERVICE LEARNING COURSE DEVELOPMENT. A. Assadi.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: C. Rosales, MD, MS. Site and Preceptor: Juntos por la Salud Mobile Unit - Jesus Gonzalez Fagoaga, PhD.

## Session IV – Epidemiological Influences on Health

*(Drachman Hall, Room A118)*

- 1:00 VECTOR-CONTROL IN RURAL DOMINICAN REPUBLIC COMMUNITIES. **N. Lodhia.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: L. Gerald, PhD, MSPH. Site and Preceptor: Dominican Republic - Dr. Dawn Barcellona, MD.
- 1:20 EARLY CAREGIVER STRESS AS A PREDICTOR OF A CHILD’S SUBSEQUENT LUNG FUNCTION THROUGH EARLY ADULTHOOD. **C. Mpody.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: E. Oren PhD, MS. Site and Preceptor: Asthma and Airway Disease Research Center - Debra Stern.
- 1:40 ASSOCIATION BETWEEN SLEEP DURATION AND COLORECTAL CANCER RISK: A SYSTEMATIC REVIEW AND META-ANALYSIS. **N. Singh.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Z. Chen, PhD, MPH. Site and Preceptor: Mel and Enid Zuckerman College of Public Health - Elizabeth Jacobs, PhD.
- 2:00 THE EFFECT OF TELEPHONE COUNSELING IN A LOCAL SMOKING CESSATION PROGRAM. **D. Hoon Lee, MD.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Z. Chen, PhD, MPH. Site and Preceptor: Kaiser Permanente Redwood City Medical Center, CA - Rashmi Saini, MD.
- 2:20 INVESTIGATING RISK BEHAVIORS OF SYRINGE ACCESS PROGRAM (SAP) CLIENTS IN TUCSON, ARIZONA. **K. Bischoff.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Z. Chen, PhD, MPH. Site and Preceptor: Southern Arizona AIDS Foundation - Luis Ortega, MPH and Jason Rivera, MPH.
- 2:40 DRAFTING ARIZONA’S CLIMATE AND HEALTH ADAPTATION PLAN AND OTHER EPIDEMIOLOGICAL SERVICES FOR THE ARIZONA DEPARTMENT OF HEALTH SERVICES. **N. Schweers.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: H. Brown, PhD, MPH. Site and Preceptor: Arizona Department of Health Services - Matthew Roach, MPH.

- 3:00 “PROMOTE, PREVENT, PROTECT”: ZIKA, STRUCTURAL VIOLENCE, AND PARADOXICAL PUBLIC HEALTH MESSAGES. **E. Nacim.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: J. Ehiri, PhD, MPH, MSc. Site and Preceptor: MEZCOPH - Heidi Brown, PhD, MPH.
- 3:20 PARTICIPATORY EVALUATION OF WATER PROJECTS IN JINOTEGA, NICARAGUA. **A. Ortiz.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: S. Sabo, DrPH, MPH. Site and Preceptor: AVODEC - Karen Resseguie, MSW.
- 3:40 HAI SPY: OBSERVATIONS OF HAND HYGIENE COMPLIANCE & HEALTHCARE INFECTION PREVENTION. **J. Bastian.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Kristen Pogreba-Brown, PhD, MPH. Site and Preceptor: Carondelet St. Joseph's Hospital - Chase Currie - MPH, CIC.
- 4:00 DETERMINING THE INFLUENCE OF ANIMAL EXPOSURE ON SALMONELLOSIS IN ARIZONA. **L. Hegarty.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Pogreba-Brown, PhD, MPH. Site and Preceptor: Arizona Department of Health Services - Joli Weiss, PhD.

## Session V – Promoting Healthy People and Environments

*(Drachman Hall, Room A119)*

- 1:00 THE DEVELOPMENT OF ENVIRONMENTAL HEALTH LITERACY MATERIALS. **K. Snyder.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: P. Beamer, PhD. Site and Preceptor: Southwest Environmental Health Science Center - Dr. Marti Lindsey, Ph.D.
- 1:20 EVALUATION OF THE ENVIRONMENTAL HEALTH STATUS IN THE ARIZONA-SONORA BORDER REGION FOCUSING ON ADVERSE BIRTH OUTCOMES AND CHILDHOOD CANCER INDICATORS. **M. Gallegos.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: P. Beamer, PhD. Site and Preceptor: Sonora Environmental Research Institute - Dr. Aminata Kilungo, PhD Soil, Water and Environmental Science.
- 1:40 INDUSTRIAL HYGIENE PRACTICE AT RAYTHEON MISSILE SYSTEMS IN TUCSON, ARIZONA. **A. Cappelli.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: J. Burgess, MD, MPH. Site and Preceptor: Raytheon Missile Systems - David Campos, MPH, CIH.
- 2:00 OVERHAUL PHASE III: LIVE-FIRE ASSESSMENT OF CBRN CANISTERS IN OVERHAUL. **S. Staack.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: J. Burgess, MD, MPH. Site and Preceptor: University of Arizona - Stephanie Griffin PhD, CIH.
- 2:20 WORKER NOISE EXPOSURE ASSESSMENT AT A MINE SITE. **N. Tuomi.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: S. Griffin PhD CIH. Site and Preceptor: Freeport-McMoRan - Stacey Webb, MS.
- 2:40 RESPIRABLE PARTICULATE SAMPLING AT THE RICHARD F. CARIS MIRROR LAB. **I. Cisneros.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: S. Griffin PhD CIH. Site and Preceptor: Richard F. Caris Mirror Lab - Karen Kenagy, BA.



- 3:00 HEALTH, SAFETY AND ENVIRONMENT RESPONSIBILITIES AT AN AEROSPACE MANUFACTURING SITE. **S. Hall.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: S. Griffin PhD CIH. Site and Preceptor: Honeywell International - Phoenix Engines - Cynthia Hanko, BS, CIH.
- 3:20 EFFECTIVENESS OF AN INTERVENTION TO REDUCE ASBESTOS EXPOSURE TO WORKERS DURING BUILDING RENOVATION. **X. Lou.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: B. Reiss, PhD. Site and Preceptor: Dominion Environmental - Ryan Kuhn, PhD.
- 3:40 LONELINESS AND IMMUNITY: A NOVEL ROLE OF SLEEP QUALITY. **C. Havens.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: P. Hsu, PhD. Site and Preceptor: University of California, Los Angeles (UCLA) - Michael Irwin, MD.
- 4:00 IDENTIFYING RISK FACTORS FOR 30- AND 90- DAY READMISSION EVENTS AMONG AMERICAN INDIAN DIABETIC PATIENTS FROM 2009 TO 2016. **C. King.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Bell, PhD. Site and Preceptor: COPE Project, Gallup, NM - Dr. Sonya Shin, MD, MPH.
- 4:20 HEALTH CARE ACCESS AND DISPARITY IN ADULTS WITH CONGENITAL HEART DEFECTS. **E. Price.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Bell, PhD. Site and Preceptor: Arizona Programs in Surveillance at the University of Arizona, Department of Pediatrics - Michael Seckeler, MD.

**Session VI – Assessment and Evaluation of Community Public Health Programs**  
*(Drachman Hall, Room A120)*

- 1:00 HEALTH EDUCATION FOR REFUGEES IN TUCSON. **S. Khan.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: B. Duncan, MD. Site and Preceptor: International Rescue Committee - Jeanine Balezi.
- 1:20 BARRIERS TO HEALTHCARE SERVICES EXPERIENCED BY AFRICAN REFUGEE AND IMMIGRANT POPULATIONS. **B. Trutter.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: B. Duncan, MD. Site and Preceptor: Pima Community Access Program - Michal Goforth.
- 1:40 HOME AND COMMUNITY BASED SERVICES. **J. Sollars.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: B. Duncan, MD. Site and Preceptor: Sonoran UCEDD - Leslie Cohen J.D.
- 2:00 PIMA COUNTY NEEDS ASSESSMENT: A REVIEW OF PIMA COUNTY. **R. Larez.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: S. Carvajal, PhD, MPH. Site and Preceptor: Clinica Amistad - Richard Austin, PhD MBA.
- 2:20 2016 MOHAVE COUNTY COMMUNITY HEALTH NEEDS ASSESSMENT. **J. Ortega.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: P. Haynes, PhD. Site and Preceptor: Kingman Regional Medical Center - Teri Williams, BA.
- 2:40 EVALUATION OF PHYSICAL ACTIVITY RESOURCES TO ASSESS NEEDS AND READINESS FOR PHYSICAL ACTIVITY SUPPORT IN LOW-INCOME COMMUNITIES. **B. Boegemann.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Schachter, MD, MBA. Site and Preceptor: AzNN SNAP-Ed Evaluation Team - Kay Orzech, PhD.
- 3:00 EVALUATION OF THREE TIERED SEXUAL ASSAULT PREVENTION PROGRAM GEARED TOWARDS GREEK LIFE. **A. Ellis.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Schachter, MD, MBA. Site and Preceptor: Women's Resource Center - Thea Cola, MS.

- 3:20 INTERNAL SOCIAL NETWORK ANALYSIS OF ARIZONA DEPARTMENT OF HEALTH SERVICES. **S. Mondol.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Schachter, MD, MBA. Site and Preceptor: Arizona Department of Health Services - Teresa Manygoats, MPA.
- 3:40 ORAL HEALTH AND PREGNANCY. **S. Mirsaeidi-farahani.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Schachter, MD, MBA. Site and Preceptor: El Rio Community Health Center - Candace Clausen MBA, CDBS, CDC-S.
- 4:00 CHALLENGES IN HEALTH INSURANCE LITERACY AMONG NAVIGATORS AND CERTIFIED APPLICATION COUNSELORS. **A. Monroy.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: L. Johnson, MD, MPH. Site and Preceptor: Arizona Center for Rural Health- University of Arizona - Dan Derksen, MD, Center for Rural Health Director.
- 4:20 LITTLE COLORADO MEDICAL CENTER COMMUNITY HEALTH NEEDS ASSESSMENT 2017. **W. Macdonald.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: D. Derksen, MD. Site and Preceptor: Little Colorado Medical Center, Winslow, AZ - Leslie Fusaro, CNA.

**Session VII – Development and Implementation of Public Health Programs**  
(*Drachman Hall, Room A122*)

- 1:00      **FOOD SECURITY AND MALNUTRITION IN A MARGINALIZED RURAL POPULATION IN CHACRASECA, NICARAGUA. K. Arnold.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: H. Strich, MPH. Site and Preceptor: JustHope-Chacraseca, Leon Nicaragua - Kara Leuberring MDP- Director of Country Programs, Nicaragua.
- 1:20      **DIGITAL STORY TELLING IN PUBLIC HEALTH. B. Dechambre.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Moore-Monroy. Site and Preceptor: Creative Narrations - Jen Nowicki-Clark MA Linguistics.
- 1:40      **DEVELOPING A CULTURALLY INFORMED CODEBOOK FOR FOCUS GROUP ANALYSIS IN 3 NAVAJO COMMUNITIES. H. Dugi.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: N. Teufel-Shone, PhD. Site and Preceptor: Tucson AZ - Al Yazzie.
- 2:00      **EVALUATION OF THE TRAINING TOOLS TO INCREASE NAVAJO NATION COMMUNITY HEALTH REPRESENTATIVES KNOWLEDGE OF ENVIRONMENTAL RISK. C. Sabaque.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: N. Teufel-Shone, PhD. Site and Preceptor: University of Arizona - Mae-Gilene Begay, MSW.
- 2:20      **COMMUNITY ENGAGEMENT STRATEGIES TO BETTER ADDRESS TRANSPORTATION EQUITY IN PHOENIX, AZ. G. Barillas-Longoria.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Ingram, MPH. Site and Preceptor: Vitalyst Health Foundation - C.J. Eisenbarth Hager, MA and Suzanne Pfister, MPA.
- 2:40      **DEVELOPMENT OF A SMOKING CESSATION TEXT MESSAGE PROGRAM FOR YOUNG ADULT TOBACCO USERS. L. Gentry.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: N. Yuan, PhD, MPH. Site and Preceptor: Arizona Smokers' Helpline - Tracy Crane, PhD.

- 3:00      **IMPLEMENTING A GENDER AND CULTURALLY SENSITIVE WEIGHT LOSS INTERVENTION FOR HISPANIC MEN. A. Duello.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: D. Garcia, PhD. Site and Preceptor: The University of Arizona Collaboratory for Metabolic Disease Prevention & Treatment - Luis Valdez, MPH, PhD Candidate.
- 3:20      **DEVELOPMENT AND IMPLEMENTATION OF A PRE-SCHOOL AGE-APPROPRIATE PERSONAL HYGIENE AND WELL-BEING CURRICULUM AT CASA DE LOS NIÑOS. S. Martinez.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: I. Ramos, MD. Site and Preceptor: Casa de los Niños - Maricela Fair.
- 3:40      **EVALUATION OF MOTIVATIONAL INTERVIEWING APPROACH FOR BEHAVIOR CHANGE IN OVARIAN CANCER SURVIVORS. C. Azzolina.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: C. Thomson, PhD, RD. Site and Preceptor: University of Arizona Collaboratory on Metabolic Disease Prevention - Angela Yung, RDN.
- 4:00      **“STARTING EARLY”: CREATING CONVERSATIONS ABOUT SEXUALITY. L. Bingham.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: C. Thomson, PhD, RD. Site and Preceptor: YWCA Southern Arizona House of Neighborly Service - Kerri Lopez.
- 4:20      **GRANT WRITING FOR HUMANITARIAN AID ORGANIZATION. J. Allen.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: D. Taren, PhD. Site and Preceptor: World Care - Courtney Slanaker, BS.

**Session VIII – The Practice of Public Health (Phoenix Only)**  
*(Phoenix Building 2, Room 2206)*

- 1:00 MARICOPA COUNTY DEPARTMENT OF PUBLIC HEALTH FATALITY MANAGEMENT ANNEX ABSTRACT. **K. Lathrop.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: Maricopa County Department of Public Health Office of Preparedness and Response - Marcus Castle, BS.
- 1:20 HEALTH LITERACY & MENTAL HEALTH CARE EXPECTATIONS. **M. Zavala.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: MCDPH - Raju Thiagarajan.
- 1:40 ELDERLY FALLS AND EMERGENCY MEDICAL SERVICES (EMS). **M. Mattle.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: Bureau of EMS and Trauma System / Arizona Department of Health Services - Vatsal Chikani, MPH, BHMS.
- 2:00 SALUD CON SABOR LATINO: DECREASING HEALTH DISPARITIES THROUGH LIFE STYLE CHANGES. **T. Maldonado.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: Esperanca - Maria Valenzuela.
- 2:20 DEVELOPMENT AND PILOT TESTING OF A COMPREHENSIVE SCHOOL HEALTH ASSESSMENT SURVEY FOR LATIN AMERICA AND THE CARIBBEAN. **G. Keahon.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: Pan American Health Organization/World Health Organization - Alfonso Contreras, MD MPH.
- 2:40 IMPROVING CHILD AND ADOLESCENT HEALTH IN MARICOPA COUNTY: A REVIEW OF YOUTH HEALTH PROGRAMS AND SCHOOL HEALTH DATA ANALYSIS. **J. Zeien.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D. Campos-Outcalt, MD, MPA. Site and Preceptor: Maricopa County Department of Public Health, Office of School Health & Wellness Initiatives - Lilliana Cardenas, AM.

- 3:00 COST AND TREATMENT QUALITY ASSOCIATED WITH PAIRING EPIDEMIOLOGISTS WITH CONTACT INVESTIGATORS TO CONTROL TUBERCULOSIS INFECTION IN MARICOPA COUNTY. **Z. Dedolph.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D. Campos-Outcalt, MD, MPA. Site and Preceptor: Maricopa County Department of Health - Tuberculosis Control and Prevention Program - Aurimar Ayala - MPH.
- 3:20 ACTION LAB: AN APPLIED PUBLIC HEALTH PROJECT FOR COLLECTIVE ACTION. **B. Lott.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D. Campos-Outcalt, MD, MPA. Site and Preceptor: Maricopa County Department of Public Health - Becky Henry, MPH.
- 3:40 ACCESS TO MENTAL HEALTH SERVICES AMONGST U.S. MILITARY VETERANS, DEPORTED TO TIJUANA, MEXICO. **J. Hanna.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: C. Rosales, MD, MS. Site and Preceptor: Deported Veterans Support House, Tijuana, Mexico - Eduardo González, PhD, MS.
- 4:00 ARIZONA ACE CONSORTIUM-A COALITION EVALUATION. **T. Swartz.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D. Campos-Outcalt, MD, MPA. Site and Preceptor: Phoenix Children's Hospital - Center for Family Health and - Marcia Stanton, MSW.
- 4:20 UNDERSTANDING SOCIAL DETERMINANTS & TRAUMA WHILE DEVELOPING CULTURAL EFFECTIVENESS: A SERVICE LEARNING EXPERIENCE IN AYACUCHO, PERU. **S. Fritsch.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: Cecilia Rosales, MD, MS. Site and Preceptor: Adrienne Decker Delgado, LLC - Adrienne Decker Delgado, MSW.
- 4:40 AMBULATORY SURGICAL CENTERS PERFORMANCE ASSESSMENT. **T. Ipsen.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: C. Rosales, MD, MS. Site and Preceptor: Surgical Care Affiliates - Robert Harmon MBA, MHA.

**Session IX – Public Health and Clinical Leadership (Phoenix Only, AM)**  
*(Phoenix Building 2, Room2206)*

- 8:40 ANALYSIS OF EXPEDITED PARTNER THERAPY FOR CHLAMYDIA AND GONORRHEA IN MARICOPA COUNTY. **B. Ebbing.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: Maricopa County Department of Public Health STD Clinic - Melanie Taylor MD, MPH.
- 9:00 JUNTOS POR LA SALUD PRIMARY PREVENTION MOBILE UNIT IMPROVES ACCESS TO CARE IN MARICOPA COUNTY. **M. Fah.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: University of Arizona Mel & Enid Zuckerman College of Public Health, Phoenix - Omar Contreras-Escontrias, MPH.
- 9:20 MOSQUITO BORNE ILLNESS IN THE MODERN WORLD: PUBLIC HEALTH CHALLENGES AND SOLUTIONS. **C. McCabe.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: Arizona Department of Public Health - Bentley Bobrow, MD.
- 9:40 INCREASING INSURANCE LITERACY FOR THE HEALTH PROFESSIONS STUDENTS OF ARIZONA. **J. Moseley.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: Arizona Center for Rural Health - Alyssa Padilla, MPH.
- 10:00 EVALUATION OF AN OPT-OUT HIV SCREENING PROGRAM IN THE MARICOPA COUNTY JAILS AND FOLLOW UP OF INDIVIDUALS NEWLY DIAGNOSED WITH HIV THROUGH THE OPT-OUT SCREENING PROGRAM. **E. Nelson.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: Maricopa County Public Health Department and Maricopa County Jail - Melanie Taylor, MD, MPH.



10:20      **INTEGRATIVE MEDICINE IN UNDERSERVED POPULATIONS: IDENTIFYING BARRIERS TO CARE AND EXAMINING POTENTIAL PUBLIC HEALTH INTERVENTIONS. J. Perkins.**  
University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: University of Arizona College of Medicine - Phoenix - Dr. Farshad Fani Marvasti.

10:40      **COMMUNITY PARAMEDICINE & MOBILE INTEGRATED HEALTH CARE INITIATIVES IN MARICOPA COUNTY. O. Zoph.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: University of Arizona - Jonathan Fisher, MD, MPH.

**Session I:  
Disease Surveillance and Prevention  
1:00 – 4:40**

*Drachman Hall, Room A112*

**Abstracts**

UTILIZING SOCIAL MEDIA APPLICATIONS AS A PLATFORM FOR IMPLEMENTING A SYPHILIS PREVENTION CAMPAIGN IN PIMA COUNTY. **J. Wahl.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: E. Shahr, MD, MPH. Site and Preceptor: Pima County Health Department - Francisco Garcia, MD, MPH.

As has been the case in many other large U.S. cities, Tucson and Pima County as a whole has seen a large increase in the incidence of newly diagnosed cases of primary and secondary syphilis. The vast majority of these cases have been found in young men who have sex with men (MSM) who utilized social media sites and smartphone apps to arrange sexual encounters. Beginning in May 2016, I worked with Pima County Health Department on developing a social media based outreach campaign targeting this demographic in order to provide education and access to testing and treatment. To accomplish this, I designed a multiple phase approach to the intervention campaign. The first phase consisted of a mass messaging campaign on several popular social media apps in the MSM community, offering free testing and treatment. The second phase consisted of a passive messaging approach, wherein I made myself available for conversation on any STI topic to app users. The final phase of the campaign was the administration of a survey inquiring about personal social media use and overall sexual health knowledge. Results from the campaign as a whole were encouraging, with a high degree of positive response from the community towards our efforts, with positive response rates as high as 62% in the static messaging phase of the campaign, along with a new diagnosis of one case of syphilis. The biggest takeaway I gleaned from this project is that social media has the potential to serve as a powerful communication platform for the public health practitioner, allowing for an anonymous method of reaching and communicating with individuals who otherwise would not seek out health care services or treatment, and certainly should be considered when designing future interventions campaigns involving high risk communities.

**RISK FACTORS FOR GONORRHEA IN UTAH: A MATCHED CASE-CONTROL STUDY. Y. Tran.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: E. Shahar, MD, MPH. Site and Preceptor: Utah Department of Health - Joel Hartsell, MPH.

Background: Gonorrhea is the overall second-most reported disease in the United States, and the third most frequently reported communicable disease in Utah. Gonorrhea rates in Utah have increased from 9.8 cases per 100,000 persons in 2011 to 52.1 cases in 2015; a five-fold increase. The majority of cases are occurring in the Wasatch Front which spans the counties of Davis, Morgan, Salt Lake, Utah, and Weber. Objective: To determine the risk factors associated with gonorrhea in Utah. Methods: A matched case-control study with a 1:2 ratio was conducted. Cases were 18 years and older with reported gonorrhea infection within the past 90 days of enrollment. Controls were recruited from the Utah Risk Factor Surveillance System (BRFSS) and matched to cases based on age, sex, and county. After participants provided verbal consent, they were asked to answer a 39 question survey that assessed demographic information, sexual behavior, and other risk factors. Data was analyzed with SAS 9.4. Results: 191 gonorrhea cases (34% female, 66% male) and 382 controls (34% female, 66% male) were enrolled in the study. Cases were 3.7 times (95% CI: 2.4, 5.6) more likely to claim drug use than controls. For those who claimed drug use within the past 90 days, cases were 20.5 (95% CI: 2.6, 159.3) times more likely to claim methamphetamine use than controls. Cases were 17.4 times (95% CI: 8.6, 35.3) more likely to claim the use of an app or website to meet a sex partner than controls. Conclusion: Cases were more likely to claim drug use and app or website use to meet sex partners than controls. With these findings regarding risk factors, targeted interventions could be applied to these at-risk groups.

**HELICOBACTER PYLORI AND GASTRIC CANCER IN NATIVE AMERICANS. R. Kreisberg.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: R. Harris, PhD, MPH. Site and Preceptor: University of Arizona College of Public Health - Eyal Oren, PhD, MS.

**INTRODUCTION:** Helicobacter pylori (H. pylori) is a bacterium found in the human stomach. Infection is common however if left untreated it can lead to chronic health conditions including ulcers or cancer. Gastric cancer has decreased in the United States, but data from the Navajo Nation shows that it is the leading cause of cancer death. This pilot project sought to understand current knowledge, attitudes, and practices of the Navajo people about H. pylori and gastric cancer. The internship focused on the development of materials, methods, and approvals for two pilot studies. **METHODS:** This mixed methods project included a qualitative study (focus groups) and a survey of clinic patients. Focus groups assessed knowledge and perceptions. The clinical survey was not implemented at this time. Extensive approval was required for this study. **RESULTS:** Protocols and questionnaires were developed. Formal approvals were obtained from 3 Navajo chapters, 2 Navajo service agencies, the Navajo Nation Human Subjects Review Board, the Indian Health Service, and the University of Arizona Institutional Review Board. Focus groups were held at 3 Navajo chapters in March 2017 with 31 participants. Many participants had never heard of H. pylori, however the majority had knowledge of stomach ulcers. The clinical survey is ongoing. **CONCLUSIONS:** National data show that gastric cancer rates remain high for Native American men and women; many experience non-cardia gastric cancer, which is typically associated with H. pylori. Focus group conversations suggest that there is a need to raise awareness around H. pylori infection and its potential consequences. Further work is needed to determine the prevalence of H. pylori in this high-risk population.

**SELF-ASSESSMENT OF SUN SENSITIVITY AND RISK FACTORS IN THE HEALTHY LIFESTYLES AND CANCER RISK PILOT STUDY. M. Martin.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: R. Harris, PhD, MPH. Site and Preceptor: Mel and Enid Zuckerman College of Public Health - Leslie Dennis, PhD, MS.

Introduction: Epidemiologic studies of skin cancer and skin diseases typically ask participants about their skin color and their sensitivity to the sun through self-report. Better tools are needed to reliably measure skin color and response. This project aimed to describe variation in melanin (brown pigmentation in skin) with self-assessment of race and ethnicity and sun sensitivity. The information will supplement existing literature on varying skin tones and skin cancer risk factors, and potentially contribute to better understanding of how different race and ethnic groups classify skin tone. Methods: University of Arizona faculty and staff, and Tucson community residents were recruited during Summer 2016. Current skin tanness (amount of melanin) was measured using a noninvasive tool called a colorimeter, which measures light reflectance from different color bands. Measurements were taken in three locations: forearm, which reflects recent exposure to sun, and upper-inner arm and wrist for areas typically not directly exposed to sun. Participants completed a short survey of skin characteristics and behaviors. Results: A total of 58 people were recruited; 60% were female. Among 42 white participants, mean melanin score at the upper inner arm was 36.9 (+4.4) compared to 38.2 (+4.0) for Asians, 40.8 (+4.2) for Hispanics, and 46.5 (+4.2) among the African Americans. Melanin values at the upper-inner arm site for those who self-reported fair skin ranged from 26.8 to 50.7 units. Conclusion: These preliminary analyses show wide variation in melanin values among self-reported skin type and race/ethnicity. More research should be done on measuring sun sensitivity through objective measures rather than self-assessment or race. Poor risk perception may explain why skin cancer rates remain high despite sun safety awareness.

FEASIBILITY OF A SMARTPHONE-BASED SYNDROMIC SURVEILLANCE SYSTEM FOR COMMUNITY HEALTH WORKERS IN NORTHERN MEXICO. **J. Romine.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Ernst, PhD, MPH. Site and Preceptor: Sonora Health Department - Enrique Villalpando Canchola, PhD.

**BACKGROUND:** Community Health Workers (CHW) in Sonora, Mexico routinely perform door-to-door activities for controlling the *Aedes aegypti* mosquito, the vector responsible for transmission of Zika, dengue, and chikungunya viruses. Efforts to control Rocky Mountain Spotted Fever (*Rickettsia rickettsii*) transmitted by the brown dog tick are also ongoing. As the arboviruses often present with mild symptoms, mobile health technologies used by CHW to report ill community members may enhance reporting of probable cases of disease that would otherwise remain undetected by passive surveillance-response systems. **OBJECTIVES:** To assess the feasibility of using CHWs' personally-owned smartphones to transmit data to an administrative database managed by local epidemiologists in Sonora, Mexico. **METHODS:** We tailored a customizable smartphone application, "CommCareMobile", to provide CHWs with a syndromic surveillance tool that can be used during routine door-to-door vector control activities. With approval from the Sonoran health department, a group of CHWs volunteered to install the application on their personally owned smartphones and attempt to gather data during routine vector-control activities. **RESULTS:** After using the application to complete the questionnaires, the CHWs transmitted the data with their phones to a secure administrative server. This data was then successfully accessed and transferred into a spreadsheet that is capable of informing a public health response. Local epidemiologists have continued developing the system beyond the completion date of this initial project. **CONCLUSION:** This study has demonstrated that CHWs who perform vector control activities in Sonora, Mexico have the potential to establish an active syndromic surveillance system through their personally-owned smartphones.

EVALUATION OF THE NATIONAL SURVEILLANCE SYSTEM FOR BABESIOSIS. **C. Schmidt.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Ernst, PhD, MPH. Site and Preceptor: Centers for Disease Control and Prevention - Susan Montgomery, DVM, MPH.

Babesiosis is a potentially fatal zoonotic disease caused by tick-borne apicomplexan parasites in the genus *Babesia*. Concerns about its geographic spread, increasing incidence, and transmission by blood transfusion have led to increased attention on babesiosis in the continental United States over the past decade. In order to inform epidemiological investigations and improve surveillance and prevention, an evaluation of the first four years (2011–2014) of national babesiosis surveillance was performed at the Parasitic Diseases Branch of the Centers for Disease Control and Prevention (CDC). The goals were to identify strengths and limitations of reporting by individual states, examine trends in reported incidence, and forecast impacts from the NNDSS Modernization Initiative (NMI), a CDC-wide process of surveillance standardization. An average of 1,386 babesiosis cases (range: 911–1,761) were reported annually in the U.S. during the evaluated period. Poisson regression mixed models suggested significant upward trends in reported babesiosis incidence in several core states. Case data assessments indicated substantial variation in state reporting processes, timeliness and data quality. Several priority variables (e.g., blood donor and travel histories) were infrequently reported and represent targets for surveillance improvements. Feedback from queried health departments indicated few concerns about the NMI transition or the addition of babesiosis-specific variables. Improved babesiosis reporting may be anticipated as surveillance systems mature, awareness increases, and CDC continues to work with health departments to refine reporting. Future assessments of surveillance sensitivity and representativeness may guide targeted resource allocations to improve awareness or expand diagnostic testing in areas of underreporting.



DEVELOPING THE 2015 MARICOPA COUNTY POISON CONTROL ANNUAL REPORT. **C. Asuzu**. University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Kacey Ernst, PhD, MPH. Site and Preceptor: Maricopa County Public Health Department (MCPHD) - Vjollca Berisha, MD, MPH, Rasneet Sandhu Kumar, MPH.

As part of its mission of protecting and promoting the health and well-being of all of Maricopa County residents and visitors, the Maricopa County Public Health Department (MCPHD) provides regular reports on the prevalence of significant health related events and their etiologic factors. Therefore, in 2015 under the auspices of the MCPHD Office of Epidemiology, I was part of a team tasked with producing a comprehensive report for the Poison Control Center. The objective was to highlight the major poison exposures, demographic characteristics, major routes, outcome of exposures and the role of Banner Poison Control Center (PC) which serves the county. Data for the report was downloaded from the National Poison Data System (NPDS). The NPDS is a data warehouse that receives information from poison control centers in real time thus facilitating efficiency. Data were analyzed using SAS software version 9.4 and formatted with Microsoft Excel. Our results showed a steady decline in exposure rates since 2000. The poisonings that had the highest incidence in 2015 were bites and envenomation. Moreover, we showed that most poisonings were unintentional (81% of human exposures) with children as major victims. We concluded that more work was needed in health education campaigns to curb unintentional exposures in the future.

A LEARNING EXPERIENCE IN BORDER HEALTH: UPGRADE OF BINATIONAL CASES SURVEILLANCE DATABASE AND ESTABLISHMENT OF A NEW METHOD FOR INFORMATION SHARING.

**B. Miller.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Ernst, PhD, MPH. Site and Preceptor: Office of Border Health, Arizona Department of Health Services - Robert Guerrero, MBA and Mariana Casal, MD, MPH.

Introduction: With movement across geopolitical borders and interdependency of border populations, it is a challenge to contain public health problems. To prevent, promote, and protect the health of those living along such borders intra- and international collaboration and information sharing is required. The objectives of this internship were to update the Office of Border Health surveillance system database to facilitate information sharing and develop a better understanding of how to maintain international collaborative relationships. Methods: An Epi Info 7 questionnaire was created to capture binational case surveillance data. Binational cases from January and February 2015 were input using the questionnaire and the information was extracted to Microsoft Excel to evaluate the ease of use and completeness of the database. Demographic analysis was completed on the subset of cases in SAS 9.4 and compared to analysis utilizing prior methods. To learn about developing and maintaining relationships, meetings and community education sessions were attended in Fall 2016. Results: Epi Info 7 allowed for successful input of binational cases and a more efficient extraction of reportable information. Demographic analysis using Epi Info 7 provided similar results as previous methods. Consistent communication, trust, and language consideration were used to maintain international collaborative relationships. Conclusion: An Epi Info 7 database is an effective system that simplifies the process of sharing information with the CDC. This database ensures that all CDC required information is in one file and that unnecessary information is not reported. While this is more efficient than previous methods, multiple steps are still required to report binational cases and the process of information sharing should continue to be improved.

**GENDER NORMS AND VECTOR CONTROL: A CROSS-SECTIONAL SURVEY IN WESTERN KENYA. A. Kendall.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Ernst, PhD, MPH. Site and Preceptor: Maseno University, Kisumu, Kenya - Bernard Guyah, PhD, MSc.

Vector control programs traditionally employ men yet evidence suggests that programs which include women in public health efforts are more successful. The objective of this study was to investigate community willingness to accept women's participation in vector control activities. A cross-sectional household survey was conducted in rural and urban Kapsabet (highland) and Kisumu (lowland), Kenya. Mixed gender surveyor teams visited randomly generated points where five households of married males and females were interviewed. Gender norm scores were assessed using a 9 point scale. Comparisons and determinants of concordance of gender norm scores within couples were assessed. Couples were matched and intraclass correlation coefficients (ICC) of gender norm scores were calculated, stratified by rural/urban and highland/lowland household settings. Multinomial regression was performed with outcome of concordance category by couple adjusted for age, rural/urban, highland/lowland, education, household wealth, and number of children. There was a total of 321 matched couples. ICCs stratified by urban and rural were 0.0 (between P=null; within P<0.001) and 0.21 (between P=0.002; within P<0.001) respectively. ICCs stratified by highland and lowland were 0.03 (between P=0.38; within P<0.001) and 0.11 (between P=0.06; within P<0.001) respectively. Statistically significant odds ratios (OR) were found for rural versus urban for concordance categories 1 versus 3 (OR=3.5; 95% CI: 1.5, 8.3), concordance category 2 versus 3 (OR=4.2; 95% CI: 2.0, 8.8), and for 1 unit increase of children for concordance category 2 versus 3 (OR=1.2; 95% CI: 1.0, 1.5). Results indicate that more education to empower women should be targeted in rural settings so that vector control programs which utilize women will be accepted and sustainable.

WOMEN'S SERVICES IN RURAL ARIZONA. **B. Anderson.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Sydney Pettygrove, PhD. Site and Preceptor: Arizona Rural Women's Health Network - Leah Meyers, MSW.

Objective: Women living in rural areas have higher rates of chronic diseases and overall poorer health than women living in urban areas. These women are affected by limited access to care, specifically a lack of access to primary and specialty care. The aim of this project was to determine whether there is a statistically significant difference between services offered at clinics in rural areas of Arizona and the urban areas of Arizona. Methods: Services offered in clinics within the rural areas of Arizona were compared to services available in the urban areas of Arizona. Using Google search and resources provided by the Arizona Alliance for Community Health Centers (AACHC), clinics in Arizona were contacted and interviewed to determine the types of services available at each clinic. Pearson's chi-squared was used to determine if there was a statistically significant difference between services offered in urban and rural areas. Results: A total of 226 clinics were assessed including 133 rural clinics (58.85%), and 93 urban clinics (41.15%). There was no statistically significant difference between rural and urban areas offering well-women visits ( $p=0.997$ ), HPV testing ( $p=0.755$ ), HPV vaccination ( $p=0.551$ ), STI services ( $p=0.600$ ), availability of contraceptives ( $p=0.997$ ), breastfeeding support ( $p=0.753$ ), prenatal care ( $p=0.095$ ), interconception health ( $p=0.582$ ), folic acid supplementation ( $p=0.533$ ) and anemia screening ( $p=0.418$ ). However, there was a statistically significant difference between mammogram services offered at urban and rural clinics ( $p=0.001$ ). Conclusion: There was no statistically significant difference in services offered at urban clinics when compared to rural clinics, with the exception of mammogram services.

**GEOGRAPHIC VARIATION IN ANALGESIC USE AMONG MEDICARE BENEFICIARIES WITH CHRONIC LOWER EXTREMITY**

**OSTEOARTHRITIS OR LOWER BACK PAIN. J. Westra.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: D. Roe, DrPH. Site and Preceptor: University of Arizona College of Pharmacy - Jenny Lo-Ciganic, PhD.

**Introduction:** Little is known about regional variations in type of analgesic use and medication-related falls and fractures. We aimed to assess analgesic use and the subsequent risk of serious fall/fracture regionally in Medicare beneficiaries with lower extremity osteoarthritis (OA) or lower back pain (LBP). **Methods:** This retrospective longitudinal study used a 5% random-sample of continuously enrolled Part A, B, and D, fee-for-service Medicare beneficiaries and identified patients with lower extremity OA or LBP from 2011 to 2013 (n=417,186). We calculated proportions of use of prescription analgesic classes including: opioids, antidepressants, gabapentinoids, muscle relaxants and nonsteroidal anti-inflammatory drugs (NSAID). We used multivariable logistic regression to obtain adjusted quarterly rates of analgesic use and subsequent serious fall/fracture in 306 Dartmouth Atlas of Health Care hospital referral regions (HRR), adjusting for sociodemographic and health status factors. **Results:** Adjusted quarterly rates of analgesic use and fall/fracture increased over 3 years. In the last wave of 2013 39% used at least one analgesic prescription (opioids: 23%; antidepressants: 20%; gabapentinoids: 9%; muscle relaxants: 6%; NSAIDs: 12%) and 0.2% had a serious fall/fracture. The ratios across HRRs of 75th to 25th percentile rates were 1.5 for opioid use, 1.3 for antidepressant use, 1.4 for gabapentinoids, 1.6 for muscle relaxants, 1.3 for NSAIDs and 1.6 for serious fall/fracture. Use of opioids [OR=1.88, 95%CI=(1.57-2.26)] and muscle relaxants [OR=1.62, 95%CI=(1.25-2.10)] were associated with an increased risk of serious fall/fracture. **Discussion:** Regional variation in analgesic use and serious fall/fracture in Medicare beneficiaries with lower extremity OA or LBP exists after adjusting for population characteristics.

**Session II:  
Promoting Health for Families, Children,  
and Vulnerable Populations  
1:00 – 4:40**

*Drachman Hall, Room A114*

**Abstracts**

**NIGHTTIME ROUTINES AND SLEEP DISTURBANCE IN FOSTER CHILDREN IN A GROUP HOME SETTING. D. Rojo-Wissar.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: C. Cutshaw, PhD. Site and Preceptor: Gap Ministries - Maureen Gerard, PhD.

Sleep disturbances are associated with cognitive difficulties, psychiatric problems, behavioral problems, and developmental delays in children. Since foster children particularly are at high risk for sleep disturbance due to their exposure to high levels of stress and hypervigilance, I chose to conduct my internship at a group foster care organization where I observed nighttime routines in the homes, inquired about sleep problems experienced by the children and parents, gathered information on training received by the parents to handle such sleep disturbances, and lastly conducted a literature review on sleep in this population and pediatric sleep interventions. Recommendations were then made for the organization based on all internship components for healthy sleep among both the children and parents.

IDENTIFYING THE BARRIERS AND FACILITATORS TO BREASTFEEDING FOR MOTHERS PARTICIPATING IN THE MARICOPA COUNTY DEPARTMENT OF PUBLIC HEALTH SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS, AND CHILDREN (WIC) PROGRAM. **S. Moyd.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: V. Nuño, PhD, MSW. Site and Preceptor: Maricopa County Department of Public Health - Jennifer Dykhuizen, MPH.

Introduction: Breastfeeding initiation is lowest among WIC clients and the “Maricopa County Department of Public Health (MCDPH) WIC World Breastfeeding Week” promotion campaign aims to encourage WIC mothers to initiate breastfeeding. The objectives of this project are to: (1) provide MCDPH WIC clinics with evidence-based breastfeeding promotion bulletin boards for “World Breastfeeding Week”, and (2) identify the barriers and facilitators to breastfeeding for WIC mothers. Project Description: A literature review identified common barriers and facilitators to breastfeeding for WIC participants. Community assessment and key informant interviews of WIC staff and clinic supervisors were conducted to characterize MCDPH WIC clients and aid in theme development for bulletin boards. Results: The literature review and interviews resulted in the development of three breastfeeding themes centered on: (1) the widespread lack of confidence and community support, and shame surrounding breastfeeding; (2) bringing awareness to ending a global burden of infant nutritional deficiency; and (3) promoting the utilization of WIC clinic-based services to achieve breastfeeding goals. One theme was selected to be put on display at each of the 16 clinics in English and Spanish. Discussion: During the first week of August, breastfeeding mothers were celebrated with balloons and the opportunity to participate in a raffle for a prize bag including breastfeeding support information and goods. The MCDPH “World Breastfeeding Week” promotion campaign has occurred a number of years and formal evaluation is needed to assess efficacy. Ironically, infant feeding practices are highly controversial and much innovation is needed to engage multiple stakeholders to provide optimal nutrition for improved MCH outcomes.



**PROMOTING POSITIVE MENTAL HEALTH IN EARLY ADOLESCENT GIRLS THROUGH THE GROWING GIRLS PROGRAM. J. Vanlandingham.**

University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Velia Leybas Nuño, PhD, MSW. Site and Preceptor: Estes Elementary School - Joni Rubinstein, M.Ed.

Introduction: The prevalence of depressive symptoms among Arizona high school females is among one of the highest nationally. The Growing Girls (GG) program is an after-school program designed to promote positive mental health. The internship objectives included 1) update select GG curriculum content to reflect recently released literature, 2) implement the revised curriculum lessons, and 3) evaluate the outcomes. Methods: Thirteen girls enrolled in the program that was delivered over 22 weeks from September to March after-school, weekly in two-hour blocks. Lesson topics addressed gender roles, peer relationships, bullying, assertiveness, coping, body satisfaction, thought management, development, and visions for the future. Ten surveys were collected in September, December and March. The Wilcoxon Signed Rank Test was used to measure change between time points. Results: Participants who scored poorly in many of the outcomes on the first survey showed improved scores in their midpoint and final survey, indicating a positive change. For example, a p-value of 0.09 was generated for the self-esteem scale when comparing values from the first and second survey, which was not significant at an alpha level of .05. However, when the mean scores were compared for that scale, the second survey showed an increase in self-esteem by 1.27 points and a further increase of .11 points was noted in the final survey taken in March. While none of the outcomes reached statistical significance, participants displayed positive qualitative changes throughout the program by participating more in discussions and activities and having frequent positive encounters with their peers. Conclusion: The changes seen in each participant individually and within their individual scores are meaningful to argue that the modified GG program shows promise.

**POSITIVE YOUTH DEVELOPMENT PROGRAMMING THROUGH COMMUNITY PARTNERSHIP. J. Otenyo.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: V. Nuño, PhD, MSW. Site and Preceptor: Estes Elementary School - Colleen Frederick, Masters of Education and Educational Leadership.

**BACKGROUND:** The Growing Girls Program provides a space for girls to receive guidance on how to navigate changes during adolescence. The program is offered through the Mel and Enid Zuckerman College of Public Health, Department of Health Promotion Sciences. It is in its fifth year at a local elementary school as an after-school program for girls in fifth and sixth grade. **METHODS:** The program is held weekly for a total of 22 weeks. Thirteen girls were enrolled and 11 girls have continued. The lessons are delivered by two MPH students. Lessons are designed using psychosocial intervention strategies to promote youth development by engaging in interactive activities that encourage positive self-efficacy and self-esteem. The program is evaluated using surveys to collect information about demographics, self esteem, self efficacy, social support, relational aggression, family relations, and domestic violence. The domestic violence evaluation scales are meant to detect if violence outside of school may contribute to victimization or bullying at school. The surveys are administered at the start, the midpoint, and at the end of the program. **RESULTS:** Girls who stayed with the program had improved scores compared to the midway surveys, however paired t-test show no statistical significance. Program facilitators observed positive change in girls' self esteem and social support during weekly activities. **CONCLUSION:** This program has successfully been able to foster collaboration between UA public health interns and a local elementary school to help guide adolescents towards positive youth development, while providing learning opportunities and encouraging personal growth for all those involved.

## FOOD FOR THOUGHT: THE REVISION, IMPLEMENTATION, AND EVALUATION OF EL RIO'S FAMILY COOKING PROGRAM.

**C. Owusu-Ankomah.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: V. Nuño, PhD, MSW. Site and Preceptor: El Rio Community Health Center - Diane Haeger, MBA.

**Background:** In recent years, food preparation practices have changed dramatically in the United States. Home-prepared meals are no longer produced regularly, and the consumption of premade and convenience food have become the new norm. Although numerous factors have influenced this shift, reduced food preparation knowledge and the lack of cooking skills are cited as significant contributors. Studies show that individuals with no involvement in their food preparation and those who lack cooking skills make poorer dietary choices and experience lower diet quality than their counterparts. In Tucson, Arizona, El Rio Community Health Center sought to combat this issue with the development of a Family Cooking Program. This program aims to promote the involvement of children in the household cooking process and to improve the health of the El Rio Community through nutrition and cooking education. **Methods:** A curriculum for a 4-part lesson series in nutrition and cooking was developed and implemented. Content covered kitchen skill basics, meal preparation, and healthy eating on a budget. Pre and post questionnaires and post program focus groups were analyzed to evaluate program outcomes. **Results:** Adult focus group participants expressed increased confidence in their cooking abilities, increased comfortability involving their children in cooking preparation, and an increased willingness to try new foods. Child focus group participants expressed increased confidence in their cooking abilities (such as proper knife technique) and an increased willingness to try new foods. **Conclusion:** The Family Cooking Program highlights the importance of participatory cooking classes for families with children to potentially improve confidence and comfort in cooking skills and food preparation knowledge.

**TAPPING INTO PREGNANCY PREVENTION: THE DESIGN AND IMPLEMENTATION OF AN AFTER SCHOOL PROGRAM FOR GIRLS. K. Belz.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: V. Nuño, PhD, MSW. Site and Preceptor: Teenage Parent Program at Sunnyside High School - Monica Luna.

Introduction: Nationally, the prevalence of teen pregnancy has declined across racial and ethnic groups. While progress has been made, disparities between groups still exist. The purpose of the internship was to develop an after-school pregnancy prevention project offered through the Teenage Parent Program (TAPP) at Sunnyside High School. Methods: A number of approaches were applied to design the program including a literature review, key informant interviews and a resource assessment. Using 3 databases, 9 articles were identified that evaluate programs addressing teen pregnancy. Key informant interviews were held with TAPP staff measuring perceptions of the political environment, feasibility of the program, and topics for curriculum content. An assessment was done with TAPP staff, and Child & Family Resources to identify clubs and programs with similar long-term goals in the Sunnyside School District. The curriculum resulted in 19 meetings that involved 9 community engagement lessons and 8 core lessons. To capture change participants complete a pre and post survey. Retention is measured by attendance, and lessons assessed through debriefing. Results: Changes from pre to post have not been analyzed as the program is in progress. While there has been a decrease in participants, the continuing participants attend regularly. Lessons have been implemented as developed with modifications suggested for future implementation. Participants express interest in learning more about real life issues they encounter (applying to college) and those encountered by their community (community walkability). Conclusion: The pregnancy prevention program fills a niche in the school community, but program editing around incentives, activities, and meeting time deserves consideration to maintain interest among young women.

**BAR STAFF PERCEPTIONS OF SEXUAL AGGRESSION IN BAR SETTINGS. A. Rodgers.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Koss, PhD. Site and Preceptor: Relationship Violence Programs Office, The University of Arizona - Elise Lopez, MPH, DrPH ABD.

Background: Alcohol is a factor in half of all reported cases of sexual assault, and research has found that areas dense with alcohol serving establishments are hotspots for sexual aggression. Bartender bystander training programs have been developed to help bar staff recognize and intervene in moments of sexual aggression and are being implemented on state and local levels. However, very little research has been done on bar staff experiences or feasibility of implementing bystander interventions in bar settings. Objectives: To assess bar staff perceptions of their role as bystanders and feasibility of bartender bystander programming, bar staff working within five-miles of the University of Arizona in Tucson, Arizona were recruited for qualitative questionnaires. Methods: A qualitative inductive content analysis was completed for questionnaires. Results: A total of 27 respondents participated with 18 completing all 11 questions. The main themes identified from this analysis were: bar staff are concerned for the safety of any clientele, and recognize female patrons and staff are at increased risk of receiving sexual aggression. Bar staff also recognized that while alcohol can play a factor in acts of aggression across genders, that male patrons were more often perpetrators. Most bar staff felt their bar setting was generally safe, but recognized they have at some point covertly or directly had to intervene in moments of sexual aggression. There was also a shown desire for training to better recognize subtleties of sexual aggression and how to effectively intervene. Conclusion: This analysis provides implications that bystander training is relevant for bar staff in alcohol serving establishments near The University of Arizona, and that further interventions are needed to address male patron aggression within bar culture.

PROVING AMISTADES TOOLS FOR THE IMPLEMENTATION OF YOUR STORY PROJECT, AN INTERVENTION THAT PROVIDES SUBSTANCE ABUSE AND HIV/AIDS EDUCATION. **A. Ochoa.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: N. Yuan, PhD, MPH. Site and Preceptor: Amistades Inc. - Ricardo M. Jasso BA in Psychology Master of Education in Counseling and Guidance .

**BACKGROUND:** Substance abuse and HIV/AIDS rates affect minorities disproportionately. About 41.6% of Tucson population is Latino and reports higher cases of HIV/AIDS and substance abuse. Amistades in partnership with SAAF started to implement an educational intervention, Your Story. Your Story is composed of 15 sessions that incorporate a mixture of activities and lectures. The implementations occur in HS classrooms and participants receive incentives after the completion of pre and post surveys. The purpose of the internship was to obtain understanding of the rates of substance abuse and sexually transmitted diseases, provide Amistades with tools to help the implementation of Your Story and increase Amistades HIV/AIDS capacity. **METHODS:** The activities included attending partner meetings, observations at the school of intervention implementation, researching existing models on capacity building, and creating review material in form of a game. **RESULTS:** Amistades was provided with a Jeopardy game as review material. Amistades was provided existing models to increase HIV/AIDS capacity. Since the data collection is analyzed by a hired agency the intern did not get to quantify the effectiveness of the intervention. From observations, the intervention with youth seems to be very effective at increasing awareness and education. **DISCUSSION:** The goal overall was to help Amistades increase their HIV/AIDS capacity and provide tools that could be used in the implementation of the intervention. It was noted that the curriculum was a little outdated therefore following some of the given recommendations would enhance the effectiveness of the intervention. With the tools provided Amistades will be able to reach a greater number of people within the community as a result of increasing their services.

## HELP-SEEKING BEHAVIOR AND PERCEPTIONS OF SEXUAL AGGRESSION IN BARS OF LGBTQIA+ UNDERGRADUATE STUDENTS.

**E. Amoa-Awuah.** University of Arizona, Tucson, AZ. MPH Internship  
Committee Chair: M. Koss, PhD. Site and Preceptor: Sexual Assault Prevention Programs - Elise Lopez, MPH.

Introduction: The Arizona Department of Health Services (ADHS) implemented a bystander intervention training program through the Arizona Safer Bars Alliance (ASBA). This research project was conducted to determine the attitudes and perceptions of undergraduate women and undergraduate LGBTQIA+ students toward this bystander intervention training program for bar staff at local alcohol-serving establishments. LGBTQIA+ stands for lesbian, gay, bisexual, trans, queer/questioning, intersex, and asexual. The “+” is in order to ensure inclusivity of any and all identities that were not stated in the above description, but still identify as part of the community. Objectives: The objectives were to: (1) identify how sexual aggression and harassment manifests itself in LGBTQIA+ and non-LGBTQIA+ bar settings; (2) determine attitudes and perceptions of a bar staff bystander intervention program; and (3) learn best practices for implementing a bar staff bystander intervention program at alcohol-serving establishments on or near college campuses. Methods: This study utilized both focus groups and online surveys to gather data from undergraduate students at the University of Arizona that were over the age of 18. In order to be included in the LGBTQIA+ portion of the study, participants had to identify as a member of the community or an ally to the community. Results: Data was received solely from LGBTQIA+ participants via the online survey. Participants noted that they would ask a friend or bar staff member for assistance if someone was being sexually aggressive. They also stated that they would feel safer and would be more likely to frequent an establishment with sexual assault prevention training. Discussion: The results of this study can be utilized to inform the ASBA bystander intervention training program.

EVALUATION AND RECOMMENDATIONS FOR THE NEBRASKA DEPARTMENT OF HEALTH AND HUMAN SERVICE PREGNANCY RISK ASSESSMENT MONITORING SYSTEM. **S. Bryan.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Koss, PhD. Site and Preceptor: Nebraska Department of Health and Human Services Division of Public Health - Maya Chilese, MA.

**Objective:** This project completed a brief evaluation of the Nebraska Pregnancy Risk Assessment Monitoring System (NE PRAMS) to ensure quality, efficiency, and usefulness of the surveillance system in enhancing maternal and child health (MCH). Recommendations for improvement were identified by analyzing stakeholder involvement and perceptions. **Background:** The Nebraska Department of Health and Human Services Division of Public Health has developed a Brief Evaluation Protocol to complete a short evaluation of program identified priority areas. This tool provided the framework for the evaluation. The following questions were explored: What stakeholders use/don't use NE PRAMS data? How is NE PRAMS data used and disseminated? Are current data dissemination practices and tools efficient and effective? Is NE PRAMS data accessible and useful to stakeholders? How representative is NE PRAMS data of stakeholder needs and interests? **Method:** A mixed-methods approach was used for the evaluation. A survey was electronically distributed to MCH stakeholders in Nebraska designed to assess the level of NE PRAMS data familiarity, need, use, and access. Thirteen key informant interviews were conducted to further understand the interaction between NE PRAMS and MCH stakeholders in Nebraska. **Results:** Information from interview and survey responses were analyzed for key themes and used to guide recommendations for improvement. **Recommendations include:** Improve awareness of NE PRAMS among stakeholders; Enhance understanding of NE PRAMS data and data uses; Identify target audiences for data and align data products to their needs; Explore ways to promote data access; Invest in and sustain partnerships with district health departments and community based healthcare organizations; Reduce stakeholder reliance on NE PRAMS program manager.



PREPARING FOR ZIKA: HEALTH DISPARITIES, GENDER, RACE, AND POVERTY IN BRAZIL. **E. Reardon.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Koss, PhD. Site and Preceptor: GDEFAM (Fortaleza, Brazil) - Cicera Felipe Silva, M.Ed.

This project sought to assess community perceptions of the various social factors leading to health disparities in Fortaleza, particularly for women at high risk for contracting Zika at the height of the epidemic. The primary desired outcome was a quantitative assessment that could lay the groundwork for improving health care seeking behavior and health care knowledge for individuals in the community, particularly in regards to reproductive health. GDEFAM played an instrumental role in designing and implementing the survey tool used to collect information on participants' knowledge of the risks associated with Zika and their own perceptions of access to health resources. The mixed-methods survey consisted of 17 questions that included both items with quantitative responses and open-ended questions that allowed participants to offer personal and anecdotal responses. Respondents (n=37) felt personal responsibility for preventing the spread of the virus, consistent with the focus of local and national Zika campaigns. Respondents stated that birth control was freely prescribed and refilled at public clinics, but appointments with prescribers took an average of four months to realize. In open survey narrative, respondents indicated an overall disconnect between public health efforts and women's perceptions of the options available to them, particularly concerning microcephaly in infants. This project highlighted research areas and questions for larger-scale projects associated with the social determinants of Zika transmission and expression. The future of effective public health interventions lies in capacity building for at-risk populations, rather than vertical efforts to treat and control infectious diseases after they reach epidemic proportions.

**Session III:  
Policy Development and Health Services  
Administration  
1:00 – 5:00**

*Drachman Hall, Room A116/  
(Phoenix, Building 2, Room 2306)*

**Abstracts**

**HEALTHCARE ADVOCACY IN ARIZONA: IMPROVING RELATIONSHIPS BETWEEN HEALTHCARE SYSTEMS AND LEGISLATIVE CANDIDATES IN DISTRICT 14. J. Amaro.** University of Arizona, Tucson, AZ. MPH  
Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Arizona Hospital and Healthcare Association - Barbara Fanning.

**Introduction:** The Arizona Hospital and Healthcare Association (AzHHA) is a statewide trade association representing more than 100 Arizona hospitals, healthcare systems, affiliated health organizations, as well as the patients and communities they serve. This project sought to build hospital grassroots networks within Arizona Legislative District 14 to ensure that health and healthcare were key factors during the 2016 elections. **Methods:** Meetings between health system leaders and legislative candidates within District 14 were organized and scheduled to take place prior to the November 2016 election. Community profiles were compiled for Graham, Cochise and Greenlee counties, highlighting population demographics, health trends and health service utilization. Candidate profiles were also created, detailing candidate platforms on healthcare, education, and the economy. **Results:** The collective health and healthcare needs for communities in District 14 included: substance misuse, teen pregnancy, availability of specialty services, recruitment and retention of healthcare providers. **Conclusion:** These findings were shared in meetings that took place between legislative candidates and two participating AzHHA hospitals, Mount Graham Regional Medical Center and Northern Cochise Community Hospital. A candidate recommendation was then made to AzHHA for the individual who best aligned with the collective interests of the hospitals in Arizona Legislative District 14.

**COMBATING CLOSTRIDIUM DIFFICILE INFECTIONS IN ARIZONA NURSING HOMES. N. Eyde.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Health Services Advisory Group - Keith Chartier, MPH, BA.

Introduction: Clostridium difficile (C diff.) is a bacterial infection of the lower intestine causing colon inflammation and extreme diarrhea that can lead to death. C diff. disproportionately infects and kills Medicare beneficiaries in Long Term Care Facilities (LTCFs) and a targeted intervention is being performed throughout the country to combat the rate of infection in these facilities. Methods: As an intern of the state Quality Improvement Organization, Health Services Advisory Group, I provided communications outreach and technical assistance for software issues to Arizona nursing home administrators to enter, track and analyze C diff. infections (CDIs) within Southern Arizona LTCF's. Information was entered into the Centers for Disease Control and Prevention National Healthcare Safety Network (NHSN). The NHSN software will be used to create a baseline and understanding of the burden of CDIs across the state of Arizona and the nation. Results: Tracking of NHSN monthly data entry by nursing home administrators was performed using shared spreadsheets and through weekly meetings. These spreadsheets were used by administrators to develop outreach strategies, ensure consistent reporting and to track barriers to data entry. Consistent reporting was monitored through email and phone communication and shared participation by nursing homes. Preliminary data collected during the baseline period suggests that CDIs are more commonly spread when patients enter the community and acute health care settings and then return to the LTCF. Conclusion: The power of tracking software such as NHSN to help administrators and healthcare providers understand trends in the spread of infections cannot be understated as those in healthcare are working to improve care delivery, save lives and reduce costs.

EVALUATING RURAL PRECEPTORS' IMPACT IN RECRUITMENT OF FUTURE PHYSICIANS IN RURAL SITES. **A. Garcia.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Arizona Telemedicine Program - Ronald Weinstein, MD; Amy Waer, MD.

**Introduction:** There is a need to encourage more health-related careers in rural sites around Arizona and to prepare future physicians for a career serving in rural communities. The UA College of Medicine offers medical students clinical rotations with local preceptors in rural areas around Arizona. The goal of this internship is to evaluate whether or not rural site preceptors have an impact on medical school students choosing to practice in rural locations. **Methods:** The study determined if rural preceptors believed there were advantages to practicing in rural communities and if so, do these preceptors have an impact on the recruitment of physicians in rural sites. A 20-question survey was administered to rural preceptors using the Qualtrics Software. The survey took less than five minutes to answer. This questionnaire was emailed to all Rural Community Preceptors who have a partnership with the UA College of Medicine - Tucson. This questionnaire will also assist in determining preceptors' motivation to teach the medical school students. Additionally, site visits to medical centers in rural areas to meet current preceptors were scheduled to better understand their impact on medical school students during their rotations. **Results:** Site visits included Sierra Vista, Bisbee, Douglas, and Safford. The survey found that 89% of rural community preceptors are in strong agreement they have an impact on medical school students choosing to practice in rural areas and 11% somewhat agree. **Conclusions:** This report demonstrates that the placement of medical school students in rural sites is a positive learning experience valued by both students and preceptors. The initial evidence supports rotations in rural sites influence medical student consideration of careers in rural communities.

**OVERCOMING CHALLENGES TO POPULATION HEALTH MONITORING AFTER PRIMARY CARE INTEGRATION INTO A BEHAVIORAL HEALTH SETTING. L. Olsen.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: COPE Community Services, Inc. - Carl Anderson, BA CPHQ.

**BACKGROUND:** COPE Community Services (COPE) is a Tucson-based, private, non-profit healthcare organization. Originally focused on behavioral health, in 2012 COPE integrated primary care services into their model. This “reverse integration” required adding physical health services for a large population with behavioral health problems. The most complex clients to serve in this model are those living with serious mental illness (SMI) who fall under Title XIX of the Arizona Health Care Cost Containment System (AHCCCS, Arizona’s Medicaid program). **OBJECTIVE:** The current project was undertaken to improve organizational compliance with HEDIS integrated care measures and other key indicators. The plan was to track physical health co-morbidities and create resources for care coordination. **METHODS:** A review of relevant academic and grey literature was conducted. This was followed by extensive chart review, client questionnaire administration, key informant interviews, and focus groups. Quality improvement efforts were performed using a series of informal rapid Plan-Do-Study-Act (PDSA) cycles. **RESULTS:** A registry of physical health co-morbidities for COPE’s SMI-XIX population and a spreadsheet of self-reported health concerns for other COPE clients were produced. Additionally, scripts for discussing common health problems were created to assist recovery coaches in addressing client health issues. **RECOMMENDATIONS:** The manual chart review required to create the disease registry could be made more efficient by updating COPE’s current electronic health record to include more functionality for physical health tracking. In addition, co-morbidity registries should be maintained and improved, and process sustainability ensured. Finally, recovery coach training on physical health coordination should be renewed periodically.

**TRAINING AND CREATING HEALTH CURRICULUM FOR FARMWORKING CHWS IN WINCHESTER HEIGHTS. S. Soto.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: SEAHEC - Gail Emrick, MPH.

**Introduction:** In the United States, Community Health Workers (CHWs) assist people of similar backgrounds, such as minority groups, the uninsured, or those with limited access to health care. The Southeast Arizona Area Health Education Center in collaboration with MEZCOPH, Chiricahua Community Health Center, and the farmworking community of Winchester Heights developed a CHW program called Healthy Farms. The purpose of this program was to offer health education and support to CHWs to expand their skills and abilities and provide health information to their community. **Methods:** This project included attending a two-week interprofessional training at a Federally Qualified Health Center (FQHC), assisting the Chiricahua Mobile Health Unit, and creating and training CHWs on health curriculum including depression, colds and flu, domestic violence, cholesterol, heat safety, and asthma. The primary deliverable for this project was the completion of a health curriculum booklet which included the six lessons identified above and supplemented with information on diabetes, healthy eating, and exercise. **Results:** Before the end of the program, a few CHWs moved to another area. As a result, the entire curriculum was not completed by all the CHWs, but the full group did receive lessons on depression, cholesterol, and cold and flu. Recruitment for new CHWs is currently underway, and if successful, the teaching program will resume. The creation of health curriculum booklets allowed CHWs to easily and visually teach their respective farm working communities. **Conclusion:** Developing a health curriculum that is culturally appropriate in collaboration with CHWs results in a tool that is useful for farmworking communities.

**HIV/HEPATITIS C OUTBREAK RESPONSE PLAN FOR MOHAVE COUNTY. A. Campillo.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Arizona Department of Health Services (AZDHS) - John Saperro, BS, ML.

**Introduction:** Human immunodeficiency virus (HIV) and Hepatitis C virus (HCV) are viruses that can be transmitted through perinatal means, sex and needle sharing with an infected person. In 2015, Scott County, Indiana had an HIV outbreak linked to injected-opioid use. After the outbreak, the Centers for Disease Control and Prevention (CDC) conducted a national assessment and identified 220 counties in the U.S. that had similar conditions, making them vulnerable to an HIV/HCV outbreak. Mohave County in Arizona was one of the identified counties. The focus of this internship was to draft the HIV/HCV Outbreak Response Plan for Mohave County that followed the federal plain language guidelines. This project was carried out in partnership with the Arizona Department of Health Services (AZDHS) and the Mohave County Health Department. **Methods:** An extensive literature review was conducted of already existing Sexually Transmitted Disease (STD) Outbreak Plans from across the country. In addition, different stakeholders within AZHDS and Mohave County Health Department were interviewed in order gain a better understanding of the project. **Results:** The HIV/HCS Outbreak Response Plan is still in progress. We are expecting to provide Mohave County with an HIV/HCV Outbreak Response Plan that will provide guidelines and response activities that will help reduce mortality, morbidity, and a social and economic burden during an outbreak. **Conclusion:** Current STD Outbreak Response Plans have been written in technical language making it difficult for various healthcare professionals to read and understand. The development of the HIV/HCV Outbreak Response Plan following the Plain Language Act will be specific, actionable and usable by stakeholders with varying degrees of education and responsibility.



APPROACH TO MEDICAL FACILITIES LICENSING. **E. Telmo.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Arizona Department of Health Services - Mr. Jerome Przystup, B.S. Family and Consumer Science.

Background: The Arizona Department of Health Services (ADHS) is the agency responsible for medical facilities licensing in the state of Arizona. ADHS sets the standard in community health through their rulemaking process and enforcement of policies within a wide spectrum of health care institutions. These include hospitals, behavioral health facilities, hospices, assisted living facilities, home health agencies and outpatient treatment centers. ADHS also provides licensing guidelines and processes and is responsible for the inspection of medical facilities, initial license issuance, renewal, denial, suspension, and revocation of licenses. The “Juntos por la Salud” primary prevention mobile unit is the result of the collaboration between the Mel and Enid Zuckerman College of Public Health and the Mexico Section of the U.S. Mexico Border Health Commission. It aims to be classified as a fully licensed outpatient treatment center focused on helping medically underserved populations in Maricopa County. The goal of the internship was to develop a licensing proposal for the primary prevention mobile unit and to ensure abidance by ADHS standards. Methods: Working with ADHS, a protocol was developed using the stepwise ADHS procedure for facility licensing. Results: Policies and procedures were developed for the "Juntos por la Salud" primary prevention mobile unit pursuant to the Arizona Administrative Code. A review by the medical facilities licensing department determined completion of the requirements for licensing of an outpatient treatment center. Conclusion: The requirements for classification of the “Juntos por la Salud” primary prevention mobile unit as an outpatient treatment center were satisfactorily completed while following the stepwise ADHS procedure for licensing.

IMPROVING DATA GATHERING TECHNIQUES AND CURRICULUM IN YOUTH NUTRITION AND EXERCISE CLASSES FOR SPANISH-SPEAKING HOUSEHOLDS. **A. Pickering**. University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: G. Barker, MBA, PhD. Site and Preceptor: Esperanca Organization, Kuban Elementary School, Mtn. View Elementary School - Marisela Escamilla- Bachelor's, education. Maria Valenzuela, degrees unknown.

The Esperança Organization is a non-profit agency focusing on improving community health in Phoenix and around the world. Two years ago they initiated a nutrition and exercise program for students in the 4th-6th grade from Spanish-speaking households called Salud con Sabor Latino para los Niños (SSLN). Error rates on the questionnaires have reached 46% for certain sections, and participation in the course shows drop-off. To create greater value, the curriculum and questionnaires had to be made engaging. By utilizing resources from behavioral studies in nutrition, and evidence-based survey construction for youth, options for improvement were discovered. Using weekly quizzes to better gauge retention of information was also considered. The curriculum was reviewed and lessons that were suited for adults were marked for editing. Cooking and exercise components were improved by drawing on experiences from recent and previous classes. By engaging with students through multiple classes, and reviewing the data, we were able to create a new survey with images, non-ambiguous questions, and uniformity. We were also able to create a model for weekly quizzes that can be tailored to the lesson to measure retention. The curriculum now relates to student's life at home and school. The recipes are easily replicated, and the activities are composed of games and dances that the students have more control over, giving them a feeling of ownership and desire to participate. While the goals of the program are defined well, there remains a gap in the collection of data. The organization is set-up to improve this program into the future, and with accurate data gathering and streamlining of the curriculum, they will see increases in participation and routine questionnaire completion, as well as a decline in missing data.

**MOTHERS IN ARIZONA MOVING AHEAD: EMPOWERING AND IMPROVING THE HEALTH OF MOTHERS IN POVERTY. B. Richmond.**  
University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D. Campos-Outcalt, MD, MPA. Site and Preceptor: Pima County Community Services, Employment and Training Department - Bonnie Bazata, MA.

People in poverty tend to experience worse health outcomes compared to people who have higher income. The Mothers in Arizona Moving Ahead (MAMA) project aims to effect change at both the individual and systems level to improve health outcomes for mothers in poverty. In order to accomplish this goal, mothers go through the Getting Ahead in a Just-Getting'-By World (Getting Ahead) curriculum that empowers participants to build their financial, social and health resources. Then they attend six monthly support meetings with volunteers called "Circles of Care". This internship project aimed to develop a baseline evaluation tool to measure participant financial, social, and health resources as well as the participants' current mental, behavioral, and physical health status. A mid and post program evaluation tool was also developed to measure change in these areas. The internship project also aimed to develop a database to manage and analyze data collected from MAMA evaluation tools. During my internship experience I researched evaluation methods to determine best practices in measuring participant health, and helped develop pre, mid, post, health, and formative evaluation tools to determine the effectiveness of Getting Ahead and Circles of Care. I created a database to analyze the results of the program. Thus far, the six participants that have started the MAMA program had on average lower than normal mental health scores, self-efficacy scores, interpersonal support scores, and higher stress levels. Three of the six participants felt that they had less than good health, and on average, participants said they experienced 6.4 days of poor physical and 11.1 days of poor mental health per month. Of those days, participants felt that their poor health prevented them from completing normal activities about 5.1 days per month.

ARIZONA DEPARTMENT OF HEALTH SERVICES ROLE IN POLICY IMPLEMENTATION AND RESEARCH. **N. Pakki.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: L. Barraza, JD, MPH. Site and Preceptor: Arizona Department of Health Services - Dr. Mark Martz, PhD.

Abstract: The Opioid Prescription Drug Epidemic is one that many are becoming aware of. Arizona is a leader in trying to tackle this problem from a multifaceted approach one of them includes making prescribers aware of their own prescribing behaviors. The state of Arizona is a part of a larger CDC project called the Prescription Drug Opioids for the States (PDO for the states). My goal was to understand the process behind policy implementation and evaluation and how to continue to improve public health service through policy. In addition, I hoped to understand the current trends in prescriber behavior through the report cards provided to prescribers. Methods: My goal was to understand the operations of ADHS in addition to understanding the processes of how projects are done in a state health department. Results: The outputs of my internship include: writing a literature review, participating in meetings to understand the roles of various stakeholders, revising the performance monitoring and evaluation plan, understanding the role of Arizona in a much larger project and also understanding the processes within a department and outside the department.

THE EFFECT OF FORMAL TRAINING ON INTERPRETATION SERVICES IN A HEALTHCARE SETTING. **N. Maganty**. University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: L. Barraza, JD, MPH. Site and Preceptor: Children's Clinics - Mimi Coomler, RN, MHA.

The Hispanic population is rapidly growing in the United States, being projected to reach approximately one third of the total US population by 2060. Now, more than ever, it is critical that healthcare organizations have the infrastructure to provide high quality healthcare to these patients. One way this can be achieved is with the use of trained and qualified translators and interpreters. Without properly trained interpreters, patients can experience communication barriers that lead to poor health outcomes and patient dissatisfaction. The goal of this internship was to improve translation and interpretation services at Children's Clinics in Tucson. The clinic typically uses medical assistants and office staff to translate for Spanish-speaking patients. Through my internship, I helped design and implement translation and interpretation workshops at Children's Clinics. This internship demonstrated that providing a more formalized education to medical interpreters could increase the efficacy of interpretation and abilities of those interpreting at Children's Clinics. Prior to our program, the interpreters at the clinic had no formal interpretation training. Through this course, a majority of the participants believed the sessions had been useful to them in improving skills, reported higher confidence in their personal interpretation abilities, and said that they would like to have more continuing education in interpretation. This internship demonstrated that providing a more formalized education to medical interpreters could increase the efficacy of interpretation and abilities of those interpreting. This paradigm of interpretation training can be used in other healthcare settings to ensure that Spanish-speaking patients are receiving the highest quality care possible.

## INTERPROFESSIONAL SERVICE LEARNING COURSE DEVELOPMENT.

**A. Assadi.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: C. Rosales, MD, MS. Site and Preceptor: Juntos por la Salud Mobile Unit - Jesus Gonzalez Fagoaga, PhD.

A major mission of the Ventanillas de Salud is to promote healthcare in the community through the use of information campaigns in order to generate a culture of prevention, information and participation in health. The Juntos por la Salud Mobile Units are an outreach arm for Ventanillas de Salud. Juntos por la Salud, at the University of Arizona aimed to design and develop a graduate-level, service learning course that engages students from Public Health, Medicine, Nursing, Pharmacy, and Physician Assisted Studies in a community-based interprofessional collaboration in Phoenix, Arizona. The course aims to engage students in providing health screening and referral services to the Phoenix community while learning about factors influencing public health, health care provision and health care seeking behaviors in this unique environment. Simultaneously, students will be interacting with peers from the five interprofessional programs based at the Phoenix campus. Through this course students will be able to recognize the importance of providing screening services for primary prevention of major health morbidities and its relation to overall mortality risk reduction related to chronic diseases. In addition, they will actively be improving access to health services by targeting key priority issues while identifying patients in need of referrals to local clinics, health institutions, or health specialists. Over the week-long course, students will have relevant readings as well as panel discussions with leading providers from a variety of institutions in order to gain a deeper understanding of the patients they will interact with on a daily basis. The course will culminate in a ten-minute group presentation of observations and an opportunity to provide a researched solution to a problem witnessed in the field.

**Session IV:**  
**Epidemiological Influences on Health**  
**1:00 – 4:20**

*Drachman Hall, Room A118*

**Abstracts**

**VECTOR-CONTROL IN RURAL DOMINICAN REPUBLIC COMMUNITIES.**  
**N. Lodhia.** University of Arizona, Tucson, AZ. MPH Internship Committee  
Chair: L. Gerald, PhD, MSPH. Site and Preceptor: Dominican Republic - Dr.  
Dawn Barcellona, MD.

Vector-borne diseases such as malaria, dengue fever, and chikungunya are major health concerns in the Dominican Republic. According to the US CDC, local mosquito transmission of Zika virus infection has been reported in the Dominican Republic. During the peak of the Zika outbreak, there was an average of 302 newly reported cases of Zika each week. The University of Arizona College of Medicine Phoenix program visits the Dominican Republic twice a year to provide medical services to sugar cane farming villages. The objective for this internship was to interview rural communities in the Dominican Republic regarding vector-borne illness. Data collected from participants included assessing community members' knowledge regarding vector-borne illness, previous exposure to vector-borne illness, and use of personal protection from mosquito bites. Data were analyzed to determine if prior exposure to vector-borne illness would increase an individual's use of personal protection from mosquito bites. Education was also provided about correct methods of preventing mosquito bites. A total of 100 one-on-one interviews were conducted between September 19th, 2016 and September 23rd, 2016. No association was found between knowing someone with a vector-borne disease and engaging in correct preventative behavior (OR=3.6 (95% CI: 0.6, 19.87) P=0.08). Similarly, no association was found between receiving information regarding vector-borne disease from media sources and the likelihood an individual engages in correct preventative behavior (OR=0.57 (95% CI: 0.119, 2.22) P=0.38). Although the analysis results were not significant, this experience provided insight on conducting interviews, providing education when appropriate, assessing community needs and developing potential solutions to address health problems present in rural communities.



## EARLY CAREGIVER STRESS AS A PREDICTOR OF A CHILD'S SUBSEQUENT LUNG FUNCTION THROUGH EARLY ADULTHOOD.

**C. Mpody.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: E. Oren PhD, MS. Site and Preceptor: Asthma and Airway Disease Research Center - Debra Stern.

**Background:** Asthma and chronic obstructive pulmonary disease represent two major public health concerns. Researchers have suggested that a pathway common to both disorders is early lung function deficit. We hypothesized that increased caregiver stress during the first year of a child's life is associated with reduced subsequent lung function in early adulthood. **Methods:** Our study population comes from the Tucson Children's Respiratory Study from which 234 parents were randomly administered surveys on daily hassles and life events to obtain a Caregiver Stress Score (CSS) (1). The pre and post-Bronchodilator (BD) forced expiratory volume (FEV1)/ forced vital capacity (FVC) ratio (%) was assessed by spirometry at ages 22, 26 and 32 years. We fit age-specific FEV1/FVC on CSS using multivariate linear regression and random effects models controlling for sex, race and concurrent height. Fully adjusted models included parental income, age, asthma status, education and smoking at enrollment. **Results:** Age-specific FEV1/FVC ratios were negatively associated with CSS for yr26 (P=0.031 and P=0.030, for pre-and post-BD, respectively), and yr32 (P=0.026 and P=0.056, for pre-and post-BD respectively). In a longitudinal model for ages 22 to 32, CSS was inversely related to FEV1/FVC ratio ( $\beta$ =-0.16; 95%CI: -0.30, -0.02 P=0.025). This effect was stronger when limited to ages 26 to 32 ( $\beta$  =-0.19; 95%CI: -0.33, -0.39 P=0.013). The relationship remained significant in the fully adjusted model. **Conclusion:** Caregiver stress during the first year of a child's life is negatively associated with lung function at least into early adulthood and probably beyond.

## ASSOCIATION BETWEEN SLEEP DURATION AND COLORECTAL CANCER RISK: A SYSTEMATIC REVIEW AND META-ANALYSIS.

**N. Singh.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair:  
Z. Chen, PhD, MPH. Site and Preceptor: Mel and Enid Zuckerman College of  
Public Health - Elizabeth Jacobs, PhD.

**Background:** Previous studies of sleep duration and colorectal cancer showed inconsistent results. This meta-analysis aims to assess the association of different sleep duration's and colorectal cancer. **Methodology:** We searched MEDLINE, PubMed, EMBASE, Web of science, EBSCO/CINAHL, and the Cochrane databases. The primary outcome was to assess the role of sleep duration in development of colorectal cancer. For purpose of this meta-analysis, we categorized sleep duration into two categories: short sleep duration <7 hours/day and longer sleep duration >8 hours/day with reference sleep duration of 7-8 hours/day. **Result:** A total of 5729 potentially relevant citations yielded seven clinical studies for meta-analysis. The pooled analysis revealed that the short sleep has slightly higher risk of developing colorectal cancer but was not statistically significant (MH-RR: 0.84; 95% CI: 0.37–1.86; p=0.66) using a random-effects model, and significant heterogeneity was observed among individual studies (p<0.001). Funnel plot showed mild publication bias on visual inspection. The pooled analysis of studies with the long sleep duration was not associated with colorectal cancer risk (MH-RR: 1.09; 95% CI: 0.42–2.81; p=0.86) using a random-effects model, and significant heterogeneity was observed among individual studies. Funnel plot showed negligible publication bias on visual inspection. There was no statistical difference between long versus short sleep duration when compared with reference (MH-RR 0.95; 95% CI: 0.64–1.41; p=0.81). **Conclusion:** In conclusion, our meta-analysis showed that there was no association between either short or long sleep duration and colorectal cancer. There is a need of developing uniform criteria for the classification of sleep duration and designing large prospective studies.

**THE EFFECT OF TELEPHONE COUNSELING IN A LOCAL SMOKING CESSATION PROGRAM. D. Hoon Lee, MD.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Z. Chen, PhD, MPH. Site and Preceptor: Kaiser Permanente Redwood City Medical Center, CA - Rashmi Saini, MD.

**OBJECTIVE:** To evaluate the effects of Telephone Counseling performed by Clinical Health Educator(CHE) for smoking cessation. Assessment includes the efficiency of CHE counseling, the difference of quitting rate between counselors or referral types. **SUBJECTS and METHODS:** Participants on follow-up were adult (age 18 or over) members of Kaiser Permanente in Redwood City, and they were referred to Health Education program by physicians or self-referred. Appointment type was divided to a referral from medical department, before or after a surgical procedure, and a referral on discharge from hospital or ER. A case-control design was used to see the effect of counseling to quitting (Case=quitter) with or without counseling. To compare the quitting rate between counselors and referral types, a retrograde cohort study was applied. **RESULTS:** In 85927 (01-03/2016) and 86630 (04-06/2016) population, the prevalence of smoking was 6.6% and 6.8% in each quarter. A case-control analysis revealed that smokers who had telephone counseling were more likely to quit with odds ratio 17.53 (CI 12.12-25.18) and 11.96 (CI 7.90-17.86) compared to smokers without counseling. To compare quitting rate in counselors, a retrograde cohort study was used. (09/2016 - 01/2017) Logistic regression was applied to 281 subjects. All counselors seemed to contribute to quitting at a similar level with Odds Ratios of 1.08 (CI .59-1.99), .72 (CI .21-2.48), and .84 (CI -.44-1.62) compared to one of the counselors. OR per appointment type showed .91 (CI .44-1.89) for discharged patients, 2.21 (CI .84-5.82) for patients with a surgical event compared to medical referral. In conclusion, all counselors achieved successful counseling at a similar rate. Counseling from surgical referral seemed more successful though it was not statistically significant.

INVESTIGATING RISK BEHAVIORS OF SYRINGE ACCESS PROGRAM (SAP) CLIENTS IN TUCSON, ARIZONA. **K. Bischoff.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Z. Chen, PhD, MPH. Site and Preceptor: Southern Arizona AIDS Foundation - Luis Ortega, MPH and Jason Rivera, MPH.

Background: Despite infection control efforts, injection drug users (IDUs) remain a high risk group for HIV/hepatitis C transmission. Needle exchange programs (NEPs) like SAP are a tactic for decreasing transmission risk, and more NEP studies are essential for optimizing infection prevention for IDUs. Objectives: The aim was to conduct program evaluation (PE) of SAP to identify program strengths and weaknesses for planning future directions. Methods: Analysis was conducted using PE survey data (n=88), which was a 20-question survey that measured participant demographics, risk behaviors for HIV/hepatitis C, and desire to seek substance abuse resources. Frequency data was stratified by number of years enrolled in SAP, and prevalence of HIV/hepatitis C for participants was estimated. Logistic regression was used to measure the effect of years of injecting drugs on seeking drug abuse resources after adjustment for age, gender, race, and ethnicity. Results: PE survey participants self-reported infection status- 23.5% were hepatitis C positive and 8.5% were HIV positive. 18 participants changed to wanting substance abuse resources since enrollment. The number of years of injecting drugs showed no statistically significant effect (OR: 1.0, 95% CI: 0.99, 1.01) on seeking substance abuse resources, but those who identified as Hispanic/Latino(a) (OR=1.6, 95% CI: 1.2, 2.2) and female gender (OR=1.4, 95% CI: 1.1, 1.8) were more likely to seek substance abuse resources than those who self-reported being non-Hispanic/Latino(a) or male. Conclusion: Hispanic/Latino(a) ethnicity and female gender are positively related to seeking resources for quitting substance use. More research with larger sample sizes are needed to better understand factors affecting the effectiveness of the SAP.

DRAFTING ARIZONA'S CLIMATE AND HEALTH ADAPTATION PLAN AND OTHER EPIDEMIOLOGICAL SERVICES FOR THE ARIZONA DEPARTMENT OF HEALTH SERVICES. **N. Schweers.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: H. Brown, PhD, MPH. Site and Preceptor: Arizona Department of Health Services - Matthew Roach, MPH.

An internship was completed at the Arizona Department of Health Services to further Arizona's progress through the Centers for Disease Control and Prevention's Building Resilience Against Climate Effects (BRACE) 5-step framework. Using climate forecasts, social vulnerabilities, projected disease burdens, and public health interventions organized during Steps 1-3 of the BRACE framework, a draft of Arizona's Climate and Health Adaption Plan (Step 4) was developed. Health impacts of state climate exposures, descriptive projections for disease burden of coccidioidomycosis, and interventions to respond to environment hazards were identified. A workshop for several state agencies and health departments, co-facilitated with Arizona State University, was organized to identify important and effective climate and health interventions. Under the guidance of ADHS's Office of Infectious Disease epidemiologists, annual age-adjusted rates of coccidioidomycosis were calculated for each year and county in Arizona from 1990-2015. Through the activities and outcomes of this internship, a realistic view of the functions and management of Arizona's public health infrastructure at various levels was achieved.

“PROMOTE, PREVENT, PROTECT”: ZIKA, STRUCTURAL VIOLENCE, AND PARADOXICAL PUBLIC HEALTH MESSAGES. **E. Nacim**. University of Arizona, Tucson, AZ. MPH Internship Committee Chair: J. Ehiri, PhD, MPH, MSc. Site and Preceptor: MEZCOPH - Heidi Brown, Phd, MPH.

The Zika infection and the spread of the virus by the vector, *Aedes aegypti*, pose a significant threat to human health, further perpetuating health inequities due to structural violence. Dispersal and flight range are important factors in disease transmission and vector control. Further, Zika virus is unprecedented with its multiple mechanisms of transmission: vector-borne, mother-to-child, and sexual. This exacerbates challenges with regard to the health message content and mechanism of delivery to vulnerable populations in varying contexts. A comprehensive literature review following PRISMA was conducted on *Aedes aegypti* flight range. Data was extracted from published articles, and statistical analysis was performed on extracted data. Pima County Health Department (PCHD) Zika related educational materials were analyzed using a public health critical race (PHCR) praxis lens. Data analysis yielded that *Aedes aegypti* flight range is of significant distance (~100m). Published PCHD Zika educational health materials were generic CDC resources, many paradoxical and lacking resource lists. Using data from the literature and from the review of PCHD reports, an information, education, and communication (IEC) tool aimed at women of reproductive age in Pima County was developed. The flight range of an *Aedes aegypti* is significant and should be integrated into Zika health messaging. The Zika virus and infection health messaging must be adapted for targeted communities, critically considering health inequities related to race, class, and gender.

**PARTICIPATORY EVALUATION OF WATER PROJECTS IN JINOTEGA, NICARAGUA. A. Ortiz.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: S. Sabo, DrPH, MPH. Site and Preceptor: AVODEC - Karen Resseguie, MSW.

Approximately 65% of Nicaraguan households have access to potable water. This rate drops to 25% for rural households. The department of Jinotega has one of the highest rates of rural population in the country (73%), of which only 26% of homes have access to potable water. Conditions have improved throughout the years due in part to the collaboration between the Nicaraguan government and local and international NGOs. AVODEC is a grass-roots non-profit headquartered in Jinotega, that works with rural communities to build infrastructure for clean water access based on the specific community needs, geographic location, and available resources. Many communities have already benefited from AVODEC's work, however, their impact has yet to be quantified. The objective of this project was to conduct a participatory evaluation to identify the extent to which users are satisfied with the water service and water quality. Two groups of stakeholders participated in focus groups in each community, members of the Community Water Advisory Board (n=23) and users (n=19). Household surveys were randomly administered in each community (n=33) to assess a broader range of satisfaction and effectiveness of the water systems. Results of effectiveness and user satisfaction varied depending on the type of water source (underground versus superficial) and the level of functionality of the system. However, all communities described high positive impact due to increased water access, regardless of water quality. In conclusion, users asserted a fairly high level of satisfaction with their water service albeit their satisfaction was based on proximity of water access. Researchers should recognize that though water quality is often the main focus of water project evaluation, it is not necessarily the primary focus of the user.

**HAI SPY: OBSERVATIONS OF HAND HYGIENE COMPLIANCE & HEALTHCARE INFECTION PREVENTION. J. Bastian.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: Kristen Pogreba-Brown, PhD, MPH. Site and Preceptor: Carondelet St. Joseph's Hospital - Chase Currie - MPH, CIC.

**Introduction** As a major medical institution in the Tucson area, Carondelet St. Joseph's Hospital seeks to improve the health of people in southern Arizona. An integral part of this is prevention and control of infections and related adverse outcomes. To avoid healthcare-associated infections (HAI) and reduce transmission, practices like using hand hygiene (HH) and personal protective equipment (PPE) exist. The goal of this project was to determine HH and PPE compliance rates and inform the hospital for improved infection prevention.

**Methods** Compliance rates were obtained by observing HH and PPE practices during a two-month period. Healthcare worker (HCW) behavior was examined by an observer at the hospital. Observations tracked the use of alcohol rub or soap hand sanitation as HCWs entered and exited a patient's room. Data was collected to be generalizable throughout the whole hospital. Observations took place across various units, HCW roles, as well as dates and times. An Excel spreadsheet was used to record these variables and HH compliance and PPE use.

**Results** A total of 1060 observations were made with 300 complete observations of a HCW both entering and exiting a patient's room. The overall HH compliance entering a patient room was 48% whereas exiting was 71%. Nursing staff, the most observed, had the highest compliance with 52% entering and 74% exiting. The most compliant unit was the ICU at 66% and 96%. Overall, HCWs had 79% PPE compliance when with a patient in isolation.

**Conclusion** This study found that the self-reported healthcare worker HH rate, when compared to observed compliance rate, is largely over reported. This is consistent with other reported observational studies. Understanding true compliance could better inform HAI rates and influence future infection prevention practices.



DETERMINING THE INFLUENCE OF ANIMAL EXPOSURE ON SALMONELLOSIS IN ARIZONA. **L. Hegarty**. University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Pogreba-Brown, PhD, MPH. Site and Preceptor: Arizona Department of Health Services - Joli Weiss, PhD.

Background: Salmonellosis is the most common bacterial enteric illness in the United States, causing more than 1.2 million illnesses annually. Although not often thought of as a zoonotic disease, salmonellosis has been increasingly linked to animal exposure. Objective: The purpose of this internship was to investigate the influence of animal exposure on salmonellosis in Arizona residents. Methods: 5,006 salmonellosis cases from 2011-2015 were obtained from Arizona's Department of Health Services (ADHS) mandatory disease reporting database. Controls were selected from the 2016 ADHS Food and Water Exposure Survey (FAWES), a web-based survey of Arizona residents not infected with Salmonella. The study population consisted of the 2,964 cases and 4,492 controls who had complete data for animal exposure either in the past seven days or in the seven days prior to illness. Chi-square analyses, stratified by age, were performed using SAS 9.4. Results: 73% of cases reported animal exposure. Reptile exposure was found to be significantly associated with salmonellosis. The odds of contracting salmonellosis in children (0-17) who have exposure to reptiles are 3.7 times higher than in those without reptile exposure (OR: 3.71 95% CI: 2.92-4.71). The odds of contracting salmonellosis in adults (18+) who have exposure to reptiles are 2.5 times higher than those without reptile exposure (OR: 2.49 95% CI: 2.00-3.11). Several serotypes were found to be significantly associated with animal exposure. Conclusions: Based on these results, Arizona healthcare providers are encouraged to consider animal exposure when assessing salmonellosis and to educate the public on safe animal handling and the suitability of reptiles as pet for families with young children.

**Session V:  
Promoting Healthy People and  
Environments  
1:00 – 4:40**

*Drachman Hall, Room A119*

**Abstracts**

**THE DEVELOPMENT OF ENVIRONMENTAL HEALTH LITERACY MATERIALS. K. Snyder.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: P. Beamer, PhD. Site and Preceptor: Southwest Environmental Health Science Center - Dr. Marti Lindsey, Ph.D.

Environmental health literacy (EHL) is an emerging field that aims to bring together theories from risk communication, environmental health science, public health, and the social sciences. Increasing EHL has been measured by raising scientific literacy, and environmental literacy among the general public along with increasing awareness of specific environmental exposures and their potential health effects. A gap has been identified between the reading levels of the general public and most written health information, which may prevent communities from comprehending the importance of environmental health. To address a perceived lack of EHL concerning how the environmental affects human health, three types of educational materials (a power point presentation, print materials, and a hands-on activity) were developed for general public audiences with the Southwest Environmental Health Science Center (SWEHSC) at the University of Arizona. The goal of the developed materials is to better communicate a broad understanding of environmental health and the environmental health research methods. Foundational scientific knowledge will also be described through the EHL materials along with a brief and basic introduction to toxicology topics. Experts at the University of Arizona that specialize in EHL, chemistry, toxicology, and public health reviewed the developed materials to ensure accurate and appropriate knowledge dispersal. Experts also reviewed the materials for simple vocabulary and appropriate reading level. The developed EHL materials will be dispersed by SWEHSC to various communities in the Southwest to help improve EHL among at-risk communities and the general public.

EVALUATION OF THE ENVIRONMENTAL HEALTH STATUS IN THE ARIZONA-SONORA BORDER REGION FOCUSING ON ADVERSE BIRTH OUTCOMES AND CHILDHOOD CANCER INDICATORS. **M. Gallegos.**

University of Arizona, Tucson, AZ. MPH Internship Committee Chair: P. Beamer, PhD. Site and Preceptor: Sonora Environmental Research Institute - Dr. Aminata Kilungo, PhD Soil, Water and Environmental Science.

The internship was completed with the Sonora Environmental Research Institute (SERI)- a non-profit organization that helps solve environmental challenges for marginalized communities. The AZ-Sonora Border Region (ASBR) is vulnerable to environmental exposures due to low SES and lack of health services. This involved working on an EPA Border 2020 grant to evaluate the environmental health status in the ASBR compared to national and state levels in the US and Mexico. This involved creating indicators that were similar to those developed by EPA in their America's Children and the Environment Report. The project focuses on two (adverse birth outcomes and childhood cancer) of the 8 indicators evaluated by SERI. Data on low birth weight and gestation was collected from the Mexican Health Ministry, the AZ Department of Health Services, and the National Vital Statistics System and analyzed for percentage of live births delivered at term with low birth weight and percentage of live births delivered preterm in the ASBR. Data on cancer cases per year and cancer deaths per year was collected from the AZ Cancer Registry for the State and for the AZ Border Region (ABR). Childhood cancer incidence (cumulative and by type) and mortality for the ABR. Data for childhood cancer in Mexico was unavailable. Adverse birth outcome and childhood cancer indicators for the ASBR were below national and state levels. Results were similar to the other 6 indicators evaluated by SERI. However, AZ childhood cancer mortality from 2007-2013 was above the national average. This might indicate a better environmental health status in the ASBR than the rest of the US and Mexico. However, this could be due to the lack of adequate environmental and health data in the region, and differences in data collection and reporting between the two countries.

**INDUSTRIAL HYGIENE PRACTICE AT RAYTHEON MISSILE SYSTEMS IN TUCSON, ARIZONA. A. Cappelli.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: J. Burgess, MD, MPH. Site and Preceptor: Raytheon Missile Systems - David Campos, MPH, CIH.

Raytheon Missile Systems headquarters in Tucson, Arizona is a manufacturing and technology facility specializing in defense solutions. The internship took place within the Environmental, Health, Safety and Sustainability department with the industrial hygiene team. The industrial hygiene team at this site seeks to anticipate, recognize, evaluate, and control workplace hazards. The goal of this internship was to integrate the practice of industrial hygiene with the ten essential services of public health. The internship included evaluation of workplace hazards for compliance with local, federal, and company standards. Specific activities included air sampling, noise dosimetry, sound level surveys, indoor air quality evaluations, qualitative risk assessments, and development of employee training materials. Survey results and recommendations for control of workplace hazards were integrated into cohesive reports that were shared with affected employees.

OVERHAUL PHASE III: LIVE-FIRE ASSESSMENT OF CBRN CANISTERS IN OVERHAUL. **S. Staack**. University of Arizona, Tucson, AZ. MPH Internship Committee Chair: J. Burgess, MD, MPH. Site and Preceptor: University of Arizona - Stephanie Griffin PhD, CIH.

Firefighter cancer rates have been studied extensively and have been proven to be higher than that of the normal population. Overhaul has been proven to be a route of exposure to known carcinogens because of firefighter tendencies to shed their self contained breathing apparatus SCBA equipment during overhaul activities. Research determining the effectiveness of air purifying respirators and chemical, biological, radiological, and nuclear (CBRN) canisters has indicated that CBRN canisters may be acceptably protective against these overhaul environments. This theory was tested in both simulated and live-fire setting in collaboration with a Tucson area fire department. Sample collection was completed using a simulated breathing apparatus with both SCBA and CBRN respiratory protection. After performance comparison, we will investigate whether CBRN canisters were protective against the simulated environments, and whether they were protective in live-fire environments. Additionally, samples collected in both overhaul settings will help to characterize the overhaul environment with current building materials and household items. Information gathered in this study will be instrumental in determining the overall safety of CBRN use in overhaul environments, and will influence researcher's decisions to move forward with human testing in the future.

**WORKER NOISE EXPOSURE ASSESSMENT AT A MINE SITE. N. Tuomi.**  
University of Arizona, Tucson, AZ. MPH Internship Committee Chair: S. Griffin  
PhD CIH. Site and Preceptor: Freeport-McMoRan - Stacey Webb, MS.

This report details the industrial hygiene job duties conducted during a 2016 summer internship at Freeport-McMoRan Inc. in Tucson, Arizona. The main project during this internship focused on evaluating worker noise exposures, including the evaluation of worker hearing protection use and their knowledge of the company's hearing conservation program. Personal noise sampling was conducted using noise dosimeters on ten employees working in five different processing departments. Selection of departments for noise sampling was determined by the company's industrial hygiene sampling plan. A visual assessment of hearing protection device use was conducted on employees who participated by asking them to demonstrate how they typically insert earplugs. Effective earplug insertion was evaluated using the 3M Earplug Fitting Guide. A short survey was administered to assess employee knowledge of Freeport-McMoRan Inc. hearing conservation program. Worker noise exposure level average ( $L_{avg}$ ) ranged from 70.6 – 94.2 dB and the highest noise level sampled ( $L_{max}$ ) ranged from 74.2-119.2 dB. Workers received education based on gaps in knowledge in Freeport-McMoRan's hearing conservation program and proper earplug insertion.

**RESPIRABLE PARTICULATE SAMPLING AT THE RICHARD F. CARIS MIRROR LAB. I. Cisneros.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: S. Griffin PhD CIH. Site and Preceptor: Richard F. Caris Mirror Lab - Karen Kenagy, BA.

The Richard F. Caris Mirror Lab constructs large, lightweight mirrors for use in optical telescopes. Due to the various industrial processes and the many chemicals/materials used on site during the fabrication of these mirrors, personnel may be exposed to a wide variety of health hazards. Recognition, evaluation and control of these hazards is of primary concern. A specific hazard in the mirror lab is respirable particulate matter exposure. Exposure to respirable particulates can occur at various stages and areas in the process of creating a mirror. Respirable particulate was sampled on personnel during two different tasks: 1) the milling of refractory ceramic fiber material; and 2) the swapping out a grinding wheel. In both cases, the exposures were below the American Conference of Industrial Hygienist's Threshold Limit Values. After sampling for each task, that information was integrated into reports and disseminated to the affected employees and managers.



HEALTH, SAFETY AND ENVIRONMENT RESPONSIBILITIES AT AN AEROSPACE MANUFACTURING SITE. **S. Hall.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: S. Griffin PhD CIH. Site and Preceptor: Honeywell International - Phoenix Engines - Cynthia Hanko, BS, CIH.

This report provides an account of a summer internship completed at Honeywell International – Phoenix Engines as part of the Health, Safety, and Environment (HSE) team. There were five main projects in this internship with experiences in key aspects of the environmental and occupational health field: hazardous waste, cranes and hoists, lockout/tagout and line break (LOTO/LB), ergonomics, and industrial hygiene. Tasks included regular compliance monitoring, quarterly audits and recordkeeping, for the hazardous waste, LOTO/LB and cranes and hoists programs. Hazardous waste tracking spreadsheets were also maintained and updated. Two ergonomics assessments were completed for employees, and subsequent reports were composed and presented to these individuals. Industrial hygiene monitoring for propyl bromide was completed in an area where transducers are cleaned, and an overexposure was identified. A solution to overexposure was implemented. Other regular tasks included supporting the HSE engineers in their daily responsibilities, attending HSE meetings, and performing safety walk-throughs of the manufacturing floors and the site.

## EFFECTIVENESS OF AN INTERVENTION TO REDUCE ASBESTOS EXPOSURE TO WORKERS DURING BUILDING RENOVATION. **X. Lou.**

University of Arizona, Tucson, AZ. MPH Internship Committee Chair: B. Reiss, PhD. Site and Preceptor: Dominion Environmental - Ryan Kuhn, PhD.

Apollo high school hired a construction team to remove acrylic carpet in all buildings during the months of June and July 2016. Asbestos fibers can be released from adhesive materials during carpet removal. Asbestos is known to cause mesothelioma in human beings. The research objective is to test the effectiveness of the intervention, including using amended water and additional HEPA units to reduce asbestos fiber exposure. Asbestos fiber exposure was measured with personal and area monitoring before and after the intervention was applied to a construction team. Air samples were taken inside and outside of the containment area. Phase-Contrast Microcopy cassettes were connected to calibrated air pumps. The flow rate was 5-15L/min depending on visible dust and work duration per NIOSH standard 7400. Poisson regression was used to assess the effectiveness of the intervention by modeling fiber counts per liter by pre-post intervention status. A total of 37 air samples (5 personal, 32 area) were collected. The overall mean fiber count for air samples were 87.1 fibers/L (SD:299.7, range: 1-1597 fibers/L). Twenty-four samples were below the limit of detection. Two classroom air samples had fiber counts above OSHA requirements of 100 fibers/L. The mean fiber counts were 2.3 fibers/L (CI 95%:2.1-2.5) higher before the intervention. Classrooms had 4.7 fibers/L (CI 95%: 5.1-5.4), corridors had 1.3 fibers/L (CI 95%: 0.8-1.7), and non-classrooms had 1.5 fibers/L (CI 95%: 0.7-2.2) more than outside decontamination chamber, respectively. Asbestos fiber counts were significantly lower after the intervention.

**LONELINESS AND IMMUNITY: A NOVEL ROLE OF SLEEP QUALITY. C. Havens.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: P. Hsu, PhD. Site and Preceptor: University of California, Los Angeles (UCLA) - Michael Irwin, MD.

Background: Acute inflammation is beneficial, but chronic inflammation has been implicated in several diseases, including cardiovascular disease. Lonely individuals tend to have a more activated immune system and abnormal inflammatory responses to stressors. Sleep has important links to mental and physical health, including immune functioning. Abnormal sleep has been implicated in negative physical and mental health conditions. Objectives: To determine if sleep quality acts as an effect modifier in the relationship between loneliness and inflammation, in a sample of older adults. Methodology: Standardized measures were used to assess loneliness and sleep quality. Assays for cellular and genomic markers of inflammation included percentage of cells expressing sTNFR2, as well as CRP and IL-6. The number of cells expressing NF- $\kappa$ B and cytokine transcription factors in PBMCs, lymphocytes, and monocytes (STAT1, 3, and 5) were also examined. Adjusted models included the interaction of sleep quality and loneliness, as well as sex, age, bmi, and race as covariates. Results: In univariate analyses, no inflammatory biomarkers were significantly different between lonely older adults, and older adult comparison controls ( $p < .01$ ). In multivariable analyses, the interaction of loneliness and sleep quality was statistically significant ( $p < .05$ ) in unstimulated STAT5 PBMCs and sTNFR2, where lonely individuals with poor sleep quality had an abnormal inflammatory response. Conclusions: These results suggest that lonely individuals show differences in molecular signaling of inflammation when sleep quality is impaired. Future research should examine if this finding holds true for sleep duration, as well as if treating sleep and/or socializing individuals can ameliorate these negative immune consequences.

**IDENTIFYING RISK FACTORS FOR 30- AND 90- DAY READMISSION EVENTS AMONG AMERICAN INDIAN DIABETIC PATIENTS FROM 2009 TO 2016. C. King.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Bell, PhD. Site and Preceptor: COPE Project, Gallup, NM - Dr. Sonya Shin, MD, MPH.

Background: Hospital readmissions are expensive, increase the risk of nosocomial infections, and can be reduced with focused initiatives to improve the quality of care. The objective of this study was to identify risk factors associated with 30- and 90- day readmission risk among Native diabetic patients. Methods: Data from diabetic patients admitted to Gallup Indian Medical Center(GIMC) between 2009 and 2016 were analyzed using logistic regression. Results: Between 2009 and 2016, 2,680 diabetic patients were admitted to GIMC; 1,894 were included in this analysis. A total of 109 (5.8%) patients were readmitted within 30 days of discharge, and 237 (12.5%) were readmitted within 90 days. For 30-day readmissions, a diagnosis of substance abuse was protective against readmission (OR=0.26, 95% CI= (0.08, 0.85)). No other covariates were significantly associated with 30-day readmission risk. For 90-day readmissions, being male (OR=1.49, 95% CI= 1.10, 2.00) and having low hemoglobin at the time of first admission (OR=0.90, 95%CI= 0.84, 0.97) were associated with 90-day readmission risk. Conclusions: Identifying risk factors for readmission for diabetic patients, particularly among underserved patients, is critically important and can help begin discussions related to mitigating readmission risk. Further research is needed to identify other potential covariates relevant for readmission risk among Native American patients.

**HEALTH CARE ACCESS AND DISPARITY IN ADULTS WITH CONGENITAL HEART DEFECTS. E. Price.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Bell, PhD. Site and Preceptor: Arizona Programs in Surveillance at the University of Arizona, Department of Pediatrics - Michael Seckeler, MD.

The 2008 American College of Cardiology/American Heart Association guidelines for the management of adults with complex congenital heart disease (CHD) recommend evaluation in a CHD specialty clinic every two years, at minimum. While prior studies suggest that a low percentage of patients follow recommended guidelines, reasons for this lack of continued care have not been identified. Through my internship with the Arizona Programs in Surveillance at the University of Arizona, I examine the effect of rural/urban geography, race/ethnicity, and socioeconomic factors on adult CHD care in Arizona. My project focuses on care continuity for two of the most common complex, cyanotic CHD types that require early intervention and lifetime follow up: Tetralogy of fallot (TOF) and transposition of the great arteries (TGA).

Using the Arizona Birth Defects Monitoring Program (ABDMP) case records, we retrospectively identified all reported cases of TOF and TGA born in Arizona between 1986 and 1997 (current ages 18 to 30 years old). Data collected included: age, race/ethnicity, socioeconomic status, vital status and driving distance from current home address to the nearest CHD clinic. The case list (218 TOF and 209 TGA) was linked to outpatient and inpatient data from facilities within Arizona. Patients were considered lost to care follow-up if no outpatient or inpatient encounters were found for the previous three years (Jan 2013 - Dec 2015). Using logistic regression, the potential contribution of each factor to loss to care follow-up was assessed. This presentation will provide methodology of this data collection, analysis and future considerations, as well as a proposal for expanding this analysis to include individuals with other moderate to severe CHD conditions.

**Session VI:  
Assessment and Evaluation of Community  
Public Health Programs  
1:00 – 4:40**

*Drachman Hall, Room A120*

**Abstracts**

HEALTH EDUCATION FOR REFUGEES IN TUCSON. **S. Khan.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: B. Duncan, MD. Site and Preceptor: International Rescue Committee - Jeanine Balezi.

Introduction and Objectives: International Rescue Committee (IRC) in Tucson assists refugees to successfully resettle in Tucson. IRC medical team works with them to get the required medical services. This internship was focused on working with IRC medical team to assess the need for health education of refugees. The goal was to develop health education curriculum and health education internship position for the future. Methodology: Health Education sessions were arranged for refugee families and IRC Staff. The current services of IRC were assessed in terms of health education. Inputs were taken from IRC medical team, caseworkers and interpreters, who work with refugees. Specific health education needs were assessed during these health education sessions. The prevalent diseases and need for health education were discussed with medical case manager. Results: The findings from this internship were threefold. First, it was found that there is no health education curriculum in place, and currently some of the needs of health education are being catered by the nutrition curriculum. Second, IRC medical services team conceded that health education is an important aspect of resettlement process for the refugees. Finally, IRC staff and clients showed interest in the health education intervention and requested some of the materials. Discussion and Conclusions: Health Education is an important but often ignored aspect of refugee resettlement. There are several barriers for achieving good health status such as language, cultural differences and difficulty in navigating the health system. The health education curriculum focuses on the problems like diabetes, hypertension, heart diseases, pregnancy and hepatitis B & C. It will be implemented with the collaboration of IRC medical team.

**BARRIERS TO HEALTHCARE SERVICES EXPERIENCED BY AFRICAN REFUGEE AND IMMIGRANT POPULATIONS. B. Trutter.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: B. Duncan, MD. Site and Preceptor: Pima Community Access Program - Michal Goforth.

**Introduction:** Pima Community Access Program (PCAP) is a not-for-profit organization whose role is to link low income and uninsured residents of Pima County with affordable, comprehensive and coordinated networks of healthcare providers. This internship focused on working with PCAP to identify barriers that exist for African immigrant and refugee populations' in accessing health care services in Pima County. The goal of this internship was to work with PCAP to develop and implement a plan aimed at increasing access to healthcare services.

**Methodology:** 4 different small groups of refugees were interviewed with community representatives acting as interpreters and facilitators. Immigrants completed questionnaires sent out to them by email and interviews were conducted with 12 PCAP navigators to assess limitations in reaching out to the target population.

**Results:** For the 20 questionnaires completed by the immigrant population and the responses obtained from the 4 small-group interviews three common themes emerged as barriers to accessing healthcare services. Firstly, African refugees and immigrants identified the absence of culturally-responsive healthcare options with language being the biggest barrier, secondly a lack or limited understanding of the healthcare delivery system and thirdly lack and cost of health insurance coverage.

**Conclusion:** Access to healthcare services will require ongoing education on health insurance coverage and existing options. There is a need to advocate for increased provision of culturally responsive health care services by community representatives, PCAP navigators and local refugee organizations. PCAP will work at developing and implementing a plan to reach out to this population to increase access to healthcare services



HOME AND COMMUNITY BASED SERVICES. **J. Sollars.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: B. Duncan, MD. Site and Preceptor: Sonoran UCEDD - Leslie Cohen J.D.

Introduction: In 2014, the Centers for Medicare & Medicaid declared new rules to impact the nature of residential and day services as part of the Home and Community Based Services (HCBS). One key facet of these rules requires all HCBS settings to be integrated and allow full access to the greater community. Each state has until 2019 to come into full compliance with the HCBS rules.

Methods: In collaboration with the Arizona Health Care Cost Containment System (AHCCCS), Sonoran University Center for Excellence in Developmental Disabilities (UCEDD) held 5 forums to gather feedback on the service planning process for Arizona Long Term Care System (ALTCS) and Division of Developmental Disabilities (DDD) members, Support Coordinators, Case Managers, and Tribal Contractors. At these forums, participants were given information about the new HCBS rules. Members were given the opportunity to provide feedback on what currently worked with their service planning process and give recommendations for a person-centered service planning process. Support Coordinators and Case Managers detailed their struggles with the current process and provided suggestions to make the planning process come into compliance with the HCBS regulations.

Results: Feedback from the forums suggested several major themes: advanced preparation, ongoing communication, the impact of family dynamics on the planning process, resources and information needed to enable members to reach their goals, adequate training, workforce issues that affect service planning, and improvement of services.

Conclusion: In order for Arizona to come into compliance with the HCBS regulations, consistent training, streamlined forms for a person-centered service planning process, and an updated list of community resources for members will need to be implemented by AHCCCS.

## PIMA COUNTY NEEDS ASSESSMENT: A REVIEW OF PIMA COUNTY.

**R. Larez.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair:  
S. Carvajal, PhD, MPH. Site and Preceptor: Clinica Amistad - Richard Austin,  
PhD MBA.

Clínica Amistad is a local non-profit in Tucson, AZ that provides basic health care to the uninsured and underinsured. Most of the clients of Clínica Amistad do not have access to health care and therefore require the organization to provide basic health care needs. Similarly, the MEZCOPH Primary Prevention Mobile Health Unit, share a similar goal of expanding health care access to those in need. The objective of this internship was to identify the locations of uninsured residents to provide a mobile health unit near their neighborhoods and provide Clínica Amistad with a population needs assessment of Pima County. These communities were identified using different sets of public data. The criteria for selecting at least 5 locations for the mobile health unit included: basic demographics, federal poverty levels, stress index, opportunity index, uninsured rates, education level, and low birth weights. Five communities were selected as the most vulnerable based on the criteria previously mentioned. Additionally, most of these areas represented a significant source of Clínica Amistad patients. As a result, it is recommended that the selected 5 key areas are targeted in order to promote health care access and utilization of basic health care resources in Pima County.

## 2016 MOHAVE COUNTY COMMUNITY HEALTH NEEDS ASSESSMENT.

**J. Ortega.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair:  
P. Haynes, PhD. Site and Preceptor: Kingman Regional Medical Center - Teri  
Williams, BA.

**Introduction:** The Affordable Care Act (ACA) requires all nonprofit hospitals to perform a Community Health Needs Assessment every three years to maintain their nonprofit status. Kingman Regional Medical Center (KRMC) partnered with the Mohave County Department of Public Health and the nonprofit health-consulting agency, Pinnacle Prevention, to meet the ACA requirement and implement the 2016 Mohave County Community Health Needs Assessment (CHNA). **Methods:** The CHNA utilized a mixed methods design and included secondary data from multiple government databases and primary data collection. **Primary data included:** 14 key informant interviews, 7 focus groups, 1002 surveys collected in-person and online. Key informant interviews were held with leaders to measure perceptions of substance abuse and assess current prevention projects. **Results:** A report was compiled and posted on the KRMC website, and physical copies were distributed to all public libraries in the county. The surveys reported the top health concerns facing the community: drug addiction, obesity and overweight, and mental health. The most prevalent individual health issues included: obesity and overweight, back pain, and joint pain. Substance abuse had the most community interest; therefore a literature review was conducted for the prescription drug drop-off boxes. **Conclusion:** Since the ACA requires the CHNA to be carried out every 3 years, future CHNAs should strive to collect both qualitative and quantitative data, and involve community more in the planning and implementation process. This iteration of the CHNA was the first time that qualitative data was collected and used to inform the report. Attention should be paid to the barriers that may be in place for residents by placing all of the prescription drop drop-off boxes within police stations.

EVALUATION OF PHYSICAL ACTIVITY RESOURCES TO ASSESS NEEDS AND READINESS FOR PHYSICAL ACTIVITY SUPPORT IN LOW-INCOME COMMUNITIES. **B. Boegemann.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Schachter, MD, MBA. Site and Preceptor: AzNN SNAP-Ed Evaluation Team - Kay Orzech, PhD.

**Introduction:** In order to combat the rising obesity epidemic and reduce sedentary behavior among Americans, the educational arm of the Supplemental Nutrition Assistance Program (SNAP-Ed), is working with community partners to enhance support for active living in local communities. The purpose of this project was to work with Arizona's SNAP-Ed program (AzNN) evaluation team to train local implementing agencies (LIAs) in the use of a tool to assess physical activity resources (PARs). **Methods:** During my internship, 11 LIAs in 10 Arizona counties were trained in the use of a tool, the Physical Activity Resource Assessment (PARA) instrument, to assess the needs and readiness of their community to engage in active living supports. **Results:** As a result of the assessments, SNAP-Ed LIAs are expected to have a better understanding of their community's existing physical activity resources and needs. These findings will allow them to work with community partners to identify and implement tangible modifications to the environment. **Discussion:** Current evidence suggests that utilization of PARs is dependent upon both quantity and quality of such resources. This evaluation project seeks to build upon that knowledge base by assisting local communities in assessing PARs and needs. Follow-up will be conducted in two years to determine site improvements. The PARA instrument provides program staff a systematic tool for assessing sites with minimal burden. However, limitations exist in use of this tool if it is not combined with community input to determine perceptions about existing and proposed physical activity site benefits and barriers to use. Gathering such community input can assist local program staff in determining and prioritizing needed improvements.

EVALUATION OF THREE TIERED SEXUAL ASSAULT PREVENTION PROGRAM GEARED TOWARDS GREEK LIFE. **A. Ellis.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Schachter, MD, MBA. Site and Preceptor: Women's Resource Center - Thea Cola, MS.

This internship was conducted at the Women's Resource Center (WRC), a center that has created sexual assault prevention programs. The primary goal was to evaluate the use of a three-tiered sexual assault prevention program currently aimed at Greek life. Subsequent goals included creating an evaluation tool and coordinating with PAC 12 institutions to establish a standard for the assessment of sexual assault prevention programs. A comprehensive study approach combining elements of a systematic review and cohort study were utilized. The cohort study of participants in the WRC prevention program was performed using a pre and post-test survey. The literature review established a knowledge base of campus sexual assault prevention programs. And, a questionnaire for sexual assault prevention programs working with Greek life was developed and sent to PAC 12 institutions, to help establish benchmarks. A quantitative and qualitative analysis was performed on the pre and post-test surveys collected in Fall Semester 2016. Seven composite measures were created to evaluate changes in attitudes and behaviors. Six of the seven measures were found to be statistically significant, within the guidelines set forth by the grant funding the program. The qualitative analysis demonstrated measurable improvement in student understanding of the complexities of consent. The benchmarking project demonstrated the UA is on par if not ahead in terms of sexual assault prevention practices when compared to peer institutions. The three-tiered approach being utilized by the WRC has increased participant knowledge on such topics as consent, bystander intervention and university/local policies and procedures. This approach should be implemented with other key populations on campus in the hope of reducing the prevalence of campus sexual assault.

INTERNAL SOCIAL NETWORK ANALYSIS OF ARIZONA DEPARTMENT OF HEALTH SERVICES. **S. Mondol.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Schachter, MD, MBA. Site and Preceptor: Arizona Department of Health Services - Teresa Manygoats, MPA.

This internship took place at the ADHS Division of Public Health Prevention Services (DPHPS). The DPHPS receives funds from the CDC 1305-Grant. For my project, I conducted a social network analysis of the DPHPS to evaluate the level of collaboration among 1305-grant-funded staff. All 1305-grant-funded staff were informed about the survey by email, presentation, and meetings and were asked to record their work such as meetings, telephone calls, and email exchange to accomplish 1305-grant program strategies over a 30-day period. Following that, they were all sent an online survey that asked them to document these contacts. A total of N=13 responded for a 59% response rate. The survey was designed to reduce the probability of inaccurate memory recall that results in recall bias. Dichotomous answer choices divided into four sections examined average distance, connectedness, average degree, and density within the formal networks for 1305 strategies in the DPHPS. Both quantitative and qualitative measures were calculated using social network analysis software. The results indicated that while some strategies displayed an easier path to connectivity, others did not. Among overall cohesiveness measures, the 1305-grant evaluation team led most favorably in having collaboration ties with other networks, followed by 1305-grant management. These two groups also led in demonstrating overall connectivity and cohesiveness compared to other 1305-grant-funded networks at DPHPS. Lastly, the 1305 Program Leader was identified as the central gatekeeper of 1305-grant information. The overall calculations suggest that the formal strategic networks vary significantly in cohesiveness and collaboration. This evaluation can be utilized to promote and measure the progress in the level of network cohesiveness in the future.

ORAL HEALTH AND PREGNANCY. **S. Mirsaeidi-Farahani.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: K. Schachter, MD, MBA. Site and Preceptor: El Rio Community Health Center - Candace Clausen MBA, CDBS, CDC-S.

My internship involved being an Oral Health Intern at the El Rio Community Health Center in Tucson, Arizona. I was given the task of delivering oral health education to pregnant women. The oral health education content was created with supplementary materials from the dental department and my own research into oral health education during pregnancy. Most patients were educated individually and were given pre- and post-tests with the same seven questions to evaluate effectiveness. There was a positive difference between the average pre- and post-test scores. Most pregnant women stated that this was the first time they had received oral health education during their pregnancy and expressed their appreciation for it. Making oral health education a routine component of prenatal education can result in improved treatment and self-care for pregnant women, and improved oral health for their children. El Rio's effort to integrate oral health into the Midwifery program is commendable. Like many preventative interventions, it is difficult to measure long-term impact.

## CHALLENGES IN HEALTH INSURANCE LITERACY AMONG NAVIGATORS AND CERTIFIED APPLICATION COUNSELORS.

**A. Monroy.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: L. Johnson, MD, MPH. Site and Preceptor: Arizona Center for Rural Health- University of Arizona - Dan Derksen, MD, Center for Rural Health Director.

Health literacy has come to the forefront as a significant barrier to care. The Department of Health and Human Services defines health literacy as “the degree to which individuals have the capacity to obtain, process and understand basic health information needed to make appropriate health decisions.” As the task of obtaining health insurance is primarily consumer driven, challenges in health insurance literacy have become increasingly evident. This internship project aimed to identify and understand the challenges in health insurance literacy to promote and facilitate increased literacy among Certified Assisters (Navigators and Certified Application Councilors or CAC) working with the Arizona Center for Rural Health (AzCRH). This project attempted a mixed-method approach. Participants included Certified Assisters, within the Arizona Center for Rural Health and the Pima County Access Program (PCAP). Qualitative data was obtained through one post-enrollment focus group with nine navigators. Several themes were identified following the focus group, including challenges among consumers with literacy, terminology, and financial literacy. Quantitative data included an eight-question survey on health insurance literacy, completed by 26 Certified Assisters. The qualitative analysis identified challenges experienced by consumers and Certified Assisters following open enrollment. Quantitative data showed that, among participants, numeracy questions were more difficult compared to terminology questions. The difference between CAC and Navigators was not statistically significant ( $p = 0.4607$ ). Descriptive statistics were calculated, and further analysis was not attempted given the small sample size. Incorporating a mixed-method approach helped identify areas for improvement, outreach and continued enrollment.



LITTLE COLORADO MEDICAL CENTER COMMUNITY HEALTH NEEDS ASSESSMENT 2017. **W. Macdonald.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: D. Derksen, MD. Site and Preceptor: Little Colorado Medical Center, Winslow, AZ - Leslie Fusaro, CNA.

Little Colorado Medical Center (LCMC), a critical access hospital (CAH) in restive Winslow, Arizona, is preparing to submit their 2017 Community Health Needs Assessment (CHNA). As a requirement of the Affordable Care Act (ACA), non-profit hospitals must submit a CHNA every three years. The purpose of these assessments is to orient hospitals towards identifying unmet health and healthcare needs of a population and making changes to meet those unmet needs. In 2016, LCMC had the goal of updating their 2014 CHNA. To achieve this goal, LCMC intensively investigated and monitored progress of public health issues in its primary service area. LCMC's primary service area is the size of New Jersey, and includes two American Indian nations, the Hopi and the Navajo. Such rich diversity in geography and culture is a source of pride as well as a point of ongoing challenges for healthcare providers. Persistent issues remain, including: a stagnant economy, alcohol abuse, domestic violence and health provider shortages. Disturbingly, the majority Navajo population is disproportionately affected by these adverse health and socio-economic conditions. Yet measurable improvements have been made since 2014, including: lower incidence of diabetes and declining rates of drug-induced deaths. It is evident that LCMC faces some stark challenges in the coming years. The hospital is up against socio-economic forces that are well outside of its control. However, underlying this entire assessment is a proud and resilient community. What cannot be shown in large data sets are grassroots efforts to create a healthier community. Recent efforts to build Winslow's new parks and revitalize the downtown have sparked hope for a reversal of fortunes.

**Session VII:  
Development and Implementation of Public  
Health Programs  
1:00 – 4:40**

*Drachman Hall, Room A122*

**Abstracts**

**FOOD SECURITY AND MALNUTRITION IN A MARGINALIZED RURAL POPULATION IN CHACRASECA, NICARAGUA. K. Arnold.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: H. Strich, MPH. Site and Preceptor: JustHope-Chacraseca, Leon Nicaragua - Kara Leuberring MDP-Director of Country Programs, Nicaragua.

Food security and nutrition are keystones in the foundation of health and well being across the lifespan. In the rural community of Chacraseca, Leon Nicaragua, the average daily household income is less than \$2 per day and residents traditionally rely on seasonal agricultural production to provide for their families. In recent years, persistent drought has further strained the socio-economic fabric of the community by limiting food production and income. This project evaluates the prevalence, severity and distribution of food insecurity in Chacraseca while identifying potential risk and protective factors associated with household food insecurity. Data was collected during home interviews in collaboration with local community leaders and an NGO, JustHope. Interviews consisted of food security questionnaires, 24-hour dietary recall and a panel of demographic and food related questions. The UN FAO- Latin American and Caribbean Food Security Scale (ELCSA) and the childhood portion of the USDA Food Security Module were used. The results of the ELCSA (N=128) reveal that 94% of all households surveyed experienced some degree of food insecurity during the past 3 months with 57% of homes experiencing severe food insecurity. The USDA childhood module (N=92) demonstrates that 64% of homes were severely food insecure with only 3% considered food secure. Further statistical analysis will test the relationship between food insecurity and demographic, socioeconomic, and other factors. This information will guide future development efforts by identifying at risk populations, understanding protective factors that enhance food security and guiding appropriate interventions in the communities with the greatest need.

DIGITAL STORY TELLING IN PUBLIC HEALTH. **B. Dechambre.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Moore-Monroy. Site and Preceptor: Creative Narrations - Jen Nowicki-Clark, MA Linguistics.

Introduction: Digital storytelling is a form of personal storytelling that is unscripted and developed with a specific methodology. Digital stories can be used for educational purposes, to promote an idea or affect policy. They can be used to inform the public and to document personal narratives. Digital storytelling is a powerful communication tool that among other things, has been used in public health to communicate with policy makers and stakeholders, inform the public about programming and to share health information. The goal of this internship is to interview previous digital storytelling workshop participants about their experience and find out if the workshop was a good investment for them and how their digital story was used and shared post-production. Creative Narrations, a digital storytelling production firm has had a strong relationship with Public Health however, post-production standardized evaluation about the impact of digital stories in Public Health has not been developed. The final product is an evaluation tool and protocol. Methods: Key informant interviews were conducted with prior workshop attendees. Additional participants were identified through key informants. Interviews were recorded with verbal consent, transcribed and coded by theme. Previously used evaluation forms were organized and analyzed. Results: Interviewees reported digital storytelling to be useful for building capacity in Public Health. Conclusion: Digital stories were shared with community members and stakeholders via social media or in a public setting and they were found to be useful tools to further their goals and objectives in many areas of Public Health. Digital storytelling has implications for multiple areas of Public Health including policy, advocacy and health promotion.

DEVELOPING A CULTURALLY INFORMED CODEBOOK FOR FOCUS GROUP ANALYSIS IN 3 NAVAJO COMMUNITIES. **H. Dugi.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: N. Teufel-Shone, PhD. Site and Preceptor: Tucson AZ - Al Yazzie.

**Introduction** The Navajo Gold King Mine (GKM) Exposure Project is a University of Arizona led, community informed public health response to a mine spill which released toxic heavy metals into the San Juan River. The river flows through northern regions of rural Navajo Nation. The Navajo people and leadership fear negative financial, cultural, and health impacts due to the spill. This internship supports a GKM project aim to understand communities' perceived risks through focus groups. **Methods** Activities required travel to Shiprock and Upper Fruitland, NM and Aneth, UT to assist with the implementation and documentation of focus groups. Narratives from 12 focus groups were recorded to inform researchers of community concerns about perceived risks to culture, physical and mental health, subsistence through crops and livestock, and environment. Recordings were transcribed, translated, and coded by analysts. Developing an NVIVO codebook for multiple coders to complete the qualitative data analysis was a significant task. A codebook was developed by first free coding to identify and agree on set nodes. Then coders all coded the same transcript to assess variability of node interpretation. Nodes with high variability were defined with clear inclusion and exclusion criteria and specific examples from the transcripts. Definitions were finalized through a consensus process with all Navajo and non-Navajo coders. **Results** Eighteen parent nodes were created with six child nodes that reflected cultural nuances that relied on a Navajo world view. **Conclusion** The culturally informed development of a codebook enhanced the relevance of the analysis to document the Navajo people's concerns and thoughts for their community before and after the spill.

EVALUATION OF THE TRAINING TOOLS TO INCREASE NAVAJO NATION COMMUNITY HEALTH REPRESENTATIVES KNOWLEDGE OF ENVIRONMENTAL RISK. **C. Sabaque**. University of Arizona, Tucson, AZ. MPH Internship Committee Chair: N. Teufel-Shone, PhD. Site and Preceptor: University of Arizona - Mae-Gilene Begay, MSW.

Purpose: To build Community Health Representatives' (CHRs) knowledge about the circumstances and outcomes of the Gold King Mine Spill (GKMS) by providing education and environmental sampling skills to in turn enhance their ability to educate the community. Methods: The GKMS project at the University of Arizona developed an Environmental Health Training for the CHRs to conduct Household Sampling and a Knowledge and Behavior Survey. Training intent was to increase CHR knowledge and awareness of specific terminology to build their skills during their interactions with the community. The training was a one-day event that covered different aspects of the household sampling, consent and protocol. To evaluate the impact of the training, we created an 8 question close-ended pre/post questionnaire. CHRs were allowed ten minutes before and after the training to complete the questionnaire. Trainers used a 15-minute PowerPoint created using Centers for Disease Control and Prevention suggested chemicals terminology and a flipchart that described events of the GKMS. Outcomes: Twenty (20) CHRs completed the training; 12 completed the pre/post-test. The group average for the pretest was 72%, and for the posttest 83%. Results showed improvement as a group, and few did worst on the post test. Conclusion: Our findings suggest standard teaching methods did contribute to a slight increase in knowledge. Additional strategies may be needed to fit the needs of the CHRs. Areas to explore would be: appropriateness of reading level in educational materials, preferred language to receive education and alternate teaching approaches.

COMMUNITY ENGAGEMENT STRATEGIES TO BETTER ADDRESS  
TRANSPORTATION EQUITY IN PHOENIX, AZ. **G. Barillas-Longoria.**

University of Arizona, Tucson, AZ. MPH Internship Committee Chair: M. Ingram, MPH. Site and Preceptor: Vitalyst Health Foundation - C.J. Eisenbarth Hager MA and Suzanne Pfister MPA.

**Purpose:** As part of a Complete Streets planning approach, community engagement is fundamental to prevent adverse health outcomes associated with land use and transportation planning. The purpose of this internship is to (a) engage community leaders to address concerns around transportation planning; and (b) examine policymakers' perspectives of built environment policy initiatives focused on community engagement and the built environment.

**Methods:** Partnered with the Center for Neighborhood Leadership to develop a community-led initiative to address environmental health concerns through community based participatory research training, strategic planning, and capacity building around local land use practices. Conducted key informant interviews (N=14) with municipal officials from planning, public health, transportation, economic development, parks and recreation, and city management. Interviews were recorded, transcribed, and thematically analyzed. **Results:** Community members (N=15) meet weekly to pursue a resident-led initiative that incorporates advocacy methods such as photovoice to prevent displacement and promote healthy community design. From a policy perspective, the major theme that emerged from the interviews was the need for community engagement in transportation planning to address priority health concerns and framing strategies to influence policy makers. The importance of cultivating civic participation in the planning process was a secondary theme. **Conclusion:** Complete Streets policies are limited in addressing health equity issues and designing built environments that improve quality of life for vulnerable communities. Municipal government officials should engage community leaders and other stakeholders in the early stages of transportation planning to promote healthy community design.

DEVELOPMENT OF A SMOKING CESSATION TEXT MESSAGE PROGRAM FOR YOUNG ADULT TOBACCO USERS. **L. Gentry.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: N. Yuan, PhD, MPH. Site and Preceptor: Arizona Smokers' Helpline - Tracy Crane, PhD.

Objectives: The Arizona Smokers' Helpline (ASHLine) launched a smoking cessation text messaging service for callers whom are trying to quit. The purpose of this internship was to conduct interviews with the ASHLine cessation coaches to inform the development of a smoking cessation text message program for young adult tobacco users (ages 18-24). A bank of text messages was developed to be pilot tested by ASHLine in the future. Methods: Individual interviews with cessation coaches (n= 4) were conducted to gain knowledge about young adult callers and the best approaches for implementing a text message program. A smoking cessation text message bank created by the National Cancer Institute was tailored and modified to fit the young adult population based on recommendations from the literature and cessation coaches' interviews. Cessation coaches (n= 9) rated the helpfulness of each text message for young adult tobacco users, using an online survey. A focus group interview with the cessation coaches (n= 7) was conducted to gain additional input on the tailored text messages. The transcript was analyzed for common themes. Results: The ratings from the coaches' survey indicated the coaches believed that the text messages were a good fit for the ASHLine's young adult smokers' population. Thirty-seven out of 40 text messages received an average rating of 4.0 and above on the helpfulness of the text messages. During the focus group, the cessation coaches gave recommendations to include pop culture references, relatable languages or slang and information to available resources. Discussion: The tailored smoking cessation young adult text message series was well received by the ASHLine cessation coaches. The next step for implementation is to pilot test the text messages with young adults to ensure this program is effective.



IMPLEMENTING A GENDER AND CULTURALLY SENSITIVE WEIGHT LOSS INTERVENTION FOR HISPANIC MEN. **A. Duello.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: D. Garcia, PhD. Site and Preceptor: The University of Arizona Collaboratory for Metabolic Disease Prevention & Treatment - Luis Valdez, MPH, PhD Candidate.

Background: Obesity disproportionately affects Hispanic men, yet little research has focused on this population. The goal of this internship was to develop and assess the feasibility of a gender- and culturally-relevant nutrition curriculum for Hispanic men participating in the ANIMO weight loss study. Methods: The ANIMO study compared a 12-week gender- and culturally-sensitive weight loss (GCSWL) intervention to a waist-list control (WLC) in sedentary, overweight/obese Hispanic males. Fifty Hispanic men were randomized to one of two groups: GCSWL or WLC. Beyond the standard curriculum, optional weekly nutrition classes were provided and online videos were developed for later use with the WLC group. The nutrition curriculum was developed using qualitative data from semi-structured interviews (n=29), dietary guidelines from the United States Department of Agriculture, and culturally-specific recipes. Self-efficacy for diet and the Southwest Food Frequency Questionnaire were collected at baseline and week 12. Results: There were statistically significant changes in total energy consumption ( $p < .01$ ), saturated fat ( $p < .01$ ), and consumption of sugar sweetened beverages ( $p < .05$ ) from baseline to 12-weeks, between the GCSWL and WLC. There was no significant difference between groups for diet self-efficacy from baseline to 12-weeks. Conclusions: Our findings are promising, but also indicate a need for further research to refine dietary interventions for Hispanic men. Future studies may consider incorporating diet behaviors as a main component by promoting family-based cooking classes, including visual food models, and giving participants the tools (e.g., measuring cups, plates, etc.) they need to make sustainable dietary changes.

DEVELOPMENT AND IMPLEMENTATION OF A PRE-SCHOOL AGE-APPROPRIATE PERSONAL HYGIENE AND WELL-BEING CURRICULUM AT CASA DE LOS NIÑOS. **S. Martinez.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: I. Ramos, MD. Site and Preceptor: Casa de los Niños - Maricela Fair.

Casa de los Niños (Casa) provides temporary housing for children from birth to 12 years of age, who are placed under their care by the Department of Child Safety, or voluntarily by their guardians. Casa provides a daily curriculum for children 3-5 years of age, that focuses on sensory experience, the alphabet, number system, and colors. However, no established personal hygiene and well-being curriculum is currently in place. The purpose of this internship project, was to develop and implement an age-appropriate personal hygiene and well-being curriculum for preschool children residing at Casa. Collaboration with Casa staff, and a literature review was conducted to determine personal hygiene and well-being topics, along with corresponding age appropriate activities. The curriculum topics chosen were hand-washing, oral hygiene, nutrition, and body awareness. An evaluation of the curriculum was conducted between the first and second round in order to make improvements before the second implementation. Observations of how the children interacted and engaged in each lesson were utilized to evaluate curriculum content. The National Association for the Education of Young Children's Indicators of Effectiveness was employed in order to gauge whether or not the content was meeting curriculum standards, and the Preschool Curriculum Coordinator's approval of the lessons was acquired. The curriculum was implemented twice and offered to a total of 46 preschool children residing in Casa. The evaluation of the curriculum content was conducted between the first and second rounds of implementation. A preschool age-appropriate personal hygiene and well-being curriculum was developed and implemented for Casa. The curriculum sought to provide Casa's preschool charges, with the opportunity to acquire personal hygiene and well-being skills.

**EVALUATION OF MOTIVATIONAL INTERVIEWING APPROACH FOR BEHAVIOR CHANGE IN OVARIAN CANCER SURVIVORS. C. Azzolina.**

University of Arizona, Tucson, AZ. MPH Internship Committee Chair: C. Thomson, PhD, RD. Site and Preceptor: University of Arizona Collaboratory on Metabolic Disease Prevention - Angela Yung, RDN.

**BACKGROUND:** Observational studies suggest that diet and exercise may be associated with reduced mortality in ovarian cancer survivors. The Lifestyle Intervention for Ovarian Cancer Enhanced Survival (LIVES) Study is a randomized controlled trial being delivered at the University of Arizona Cancer Center to examine the relationship between lifestyle modifications and progression free survival after treatment for ovarian cancer as compared to usual care. Participants in the intervention group receive telephone-based lifestyle coaching from undergraduate students trained in motivational interviewing (MI). Treatment fidelity is assessed using the MITI 3.1.1 measurement tool. The aim of the internship project was to evaluate MITI scores for intervention coaches and to examine the association between coach-level mean MITI score and participant change in diet and activity to ensure intervention fidelity. **METHODS:** One hundred randomly selected intervention coaching calls were scored. The recommended competency threshold is an average score of 4 out of 5. Analysis compared participant outcomes for coaches scoring above and below the threshold. Descriptive analysis were used to report coach MITI performance. Correlation between mean score and behavior change score also were assessed. **RESULTS:** Overall intervention coaches scored 4.06 on the MITI instrument with scores ranging from 3.53 to 4.73. Higher MITI score was trending toward being associated with change in diet and was not associated with change in activity. **CONCLUSIONS:** These results along with qualitative data from a focus group conducted with coaches have been used to develop on-going coach training. Evaluation of treatment fidelity increases the validity of conclusions in regards to participant performance and allows institutions to disseminate effective treatments.

**“STARTING EARLY”:** CREATING CONVERSATIONS ABOUT SEXUALITY. **L. Bingham.** University of Arizona, Tucson, AZ. MPH Internship Committee Chair: C. Thomson, PhD, RD. Site and Preceptor: YWCA Southern Arizona House of Neighborly Service - Kerri Lopez.

At an early age, adolescents should be educated about their changing bodies and sexuality. Whether the conversation focuses on menstrual hygiene or sexual consent, parents should discuss the physical and emotional complexities of sex and adolescence with their child; however, most parents don't. Research suggests that facilitating conversations about sexuality can delay sexual activity and reduce negative health outcomes such as unplanned pregnancy. Per the request of YWCA Southern Arizona Directors and community stakeholders, a new program was developed to facilitate the necessary conversations about sexuality between parent and adolescent child. In an assessment of sexuality education in the South Tucson community, programs and resources for parents and their adolescents were found to be lacking or inaccessible. Further, current curriculum is not culturally tailored to meet the needs of Latino families, a population that makes up almost 80% of the South Tucson community. Informal conversation groups with mothers, brief interviews with young girls, and a review of contemporary curriculum and evaluated sexuality education programs helped guide the framework and content of an 11-week comprehensive sexuality program for adolescent girls and their mothers or female guardians. The program, titled *Mujeres y Niñas*, will be piloted at the YWCA Southern Arizona House of Neighborly Service campus in Fall 2017.

**GRANT WRITING FOR HUMANITARIAN AID ORGANIZATION. J. Allen.**  
University of Arizona, Tucson, AZ. MPH Internship Committee Chair: D. Taren,  
PhD. Site and Preceptor: World Care - Courtney Slanaker, BS.

**Abstract Introduction:** Grant writing is a useful tool in many public health agencies and requires a specific skill set: research, writing, needs assessment, budget development, evaluation, and program development. World Care is a Tucson-based nonprofit organization that collects and redistributes recycled, reused, and donated goods to schools, communities, and individuals in need. I primarily served as a grants research and proposal writer for the World Care team. The primary goal of the internship was to develop a grant system for World Care to utilize when applying for grants and other funding opportunities. **Methods:** World Care's Executive Director determined primary internship activities, which included researching local funders, reviewing requests for proposals, drafting proposal content, and developing documents to assist in future grant applications. **Results:** The outputs of the internship experience included completing and submitting one grant application and drafting two others for subsequent grant cycles. I also developed a grant tracker, logic models for World Care programs and a general document to help with future grant applications. **Conclusions:** The summer internship at World Care provided more insight into proposal writing for a local nonprofit organization that operates programs serving communities both domestically and abroad. The internship experience provided lessons in the components of proposal writing including the use of data to show the project's need and justification for the funding request. I also gained experience assisting program staff and board members plan a community event to increase the public's awareness of and involvement in World Care programs and for community members to meet World Care's new leadership team.

**Session VIII (Phoenix Only):  
The Practice of Public Health  
1:00 – 4:40**

*(Phoenix Building 2, Room 2206)*

**Abstracts**

MARICOPA COUNTY DEPARTMENT OF PUBLIC HEALTH FATALITY MANAGEMENT ANNEX ABSTRACT. **K. Lathrop.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: Maricopa County Department of Public Health Office of Preparedness and Response - Marcus Castle, BS.

**BACKGROUND:** Surges in death are an unfortunate, unpredictable possibility. Creating a plan to manage mass fatalities is a federal requirement. Mass fatality management plans require a comprehensive understanding of the day-to-day fatality management, as well as a wealth of resources that can be referenced in emergencies. **METHODS:** Utilizing the plan developed by the Maricopa County Department of Public Health Office of Preparedness and Response, as well as recommendations from communities that enacted fatality management plans recently, gaps in the plan were identified, as were needs that could further help the Office of Preparedness and Response. **RESULTS:** The major gaps identified in the Fatality Management Annex were lack of understanding the day-to-day fatality management roles of stakeholders; ability to identify what waivers would be needed to extend cremation hours, Death Certificate timelines, death investigation timelines, and how to appropriately transport deaths whose Cause of Death were infectious diseases. In addition to addressing these areas, tables and graphs were created to outline resources for storage, transportation, possible cremation hours, and contact information for stakeholders. **CONCLUSION:** Preparing for fatality management is an unfortunate necessity. Appropriate fatality management requires a balance of complying with federal guidelines, understanding a County's needs and challenges, and taking into account lessons learned from communities who have recently activated fatality management plans. Responding to Maricopa County's challenges required increased communication with stakeholders and compilation of new and existing resources, while lessons learned prompted ensuring a comprehensive understanding of Maricopa County's fatality management plan.

## HEALTH LITERACY & MENTAL HEALTH CARE EXPECTATIONS.

**M. Zavala.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: MCDPH - Raju Thiagarajan.

The Maricopa County Department of Public Health (MCDPH) aims to “protect and promote the health and well-being” of residents and visitors. As part of this aim, a survey was conducted around several low-income clinics to assess levels of health literacy. As most of the individuals surveyed and their families visit these clinics for primary care, MCDPH is looking to appropriately expand medical offerings, specifically in the realm of mental health. A three part survey was created consisting of basic indicators, patient satisfaction/health literacy and mental health care questions. Each question gave the client the option to avoid a response and no questions asked for personal information for privacy. Results: The majority of the surveys provided positive responses, expressing interest in mental health offerings and moderate to high satisfaction within clinics. In terms of health literacy, patients without insurance were more likely to indicate low levels of health literacy. Those lacking insurance indicated choosing the MCDPH clinics due to the insurance system being too complicated. Insurance holders had more knowledge of insurance and understanding of complex forms. The majority of the findings convey that within this population, most health choices are made when ill health is experienced rather than having a preexisting plan. Children are treated much more promptly and their symptoms typically seem to be less overlooked. Many of the patients expressed interest in discounted/low-cost rehabilitation services and depression/anxiety treatment. Overall, our findings aligned with previous research while also providing new insight for Maricopa County in terms of new offerings but also the need for a potential health literacy course or advocate within these clinics.



## ELDERLY FALLS AND EMERGENCY MEDICAL SERVICES (EMS).

**M. Mattle.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: Bureau of EMS and Trauma System / Arizona Department of Health Services - Vatsal Chikani, MPH, BHMS.

**Purpose:** Assess the burden of 911 calls related to falls in the population  $\geq 65$  in Arizona, and develop a toolkit compiling evidence-based falls prevention resources for Emergency Medical Services (EMS) agencies. **Methods:** To understand the burden of falls/lift assists on EMS, 2015 data from the Arizona Prehospital Information & EMS Registry System (AZ-PIERS) were analyzed. A 28-question survey, to assess the current needs of EMS agencies aiming to provide falls prevention, was designed by a focus group (EMS and falls prevention stakeholders), and distributed to EMS providers via e-mail. Descriptive statistics were performed using SAS<sup>TM</sup> software. A literature review was conducted to evaluate falls prevention provided by EMS agencies. Based on the literature review, survey results, and considering best practices, recommendations for the development of the toolkit were provided to the Arizona Falls Prevention Coalition. **Results:** In 2015, 25% (43,583) of 911 calls for patients aged  $\geq 65$  were attributed to falls/lift assists in AZ-PIERS. The survey reached 279 e-mail addresses, and achieved a 27% response rate. Forty-seven percent of the participants indicated that 10-30% of their annual call volume is related to falls with injury. In total, 47% (35) of respondents stated that their agencies do not provide any falls prevention programs. The most important falls prevention resources identified by EMS were “handouts for patients”, “home safety checklists for first responders”, and “falls education for first responders”. **Conclusion:** The literature review and best practice examples showed that many of the desired resources revealed by the survey are already available at low or no cost. A falls prevention toolkit will make resources readily available for EMS agencies to develop and improve their falls prevention activities.

**SALUD CON SABOR LATINO: DECREASING HEALTH DISPARITIES THROUGH LIFE STYLE CHANGES. T. Maldonado.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: Esperanca - Maria Valenzuela.

Salud con Sabor Latino (SSL), was created to combat nutritional health disparities with-in low resourced Latino communities. Many Latino communities suffer from chronic disease that can be prevented through healthy nutritional habits. Latino communities may have limited or no access to health care services, making it difficult to know about the different preventative measures that are available. SSL teaches nutritional preventative measures to decrease health disparities such as obesity, diabetes, high blood pressure, and cholesterol issues. SSL offers a four week course (eight sessions), teaching participants why a healthy nutrition habit is important and how lifestyle choices can help prevent health issues in the future. Each week is a new topic (portion control, nutrition labels, fresh produce, body mass index [BMI], and physical activity), along with a cooking class so participants can learn healthy alternatives to commonly prepared meals. Students will receive a food diary for tracking everything they eat. This diary will allow the student to see the array of portions consumed and where improvements may be possible. Students also have anthropometric measurements taken on the first and last day of class as well as six months after taking the class. Tracking of weight and waist circumference allows assessment to see how the SSL program helped. At the end of the course, the students will have gained knowledge on how to maintain a healthy nutrition habit, to reduce chronic disease occurrence, and in turn decrease health disparities.

DEVELOPMENT AND PILOT TESTING OF A COMPREHENSIVE SCHOOL HEALTH ASSESSMENT SURVEY FOR LATIN AMERICA AND THE CARIBBEAN. **G. Keahon**. University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: J. Foote, PhD. Site and Preceptor: Pan American Health Organization/World Health Organization - Alfonso Contreras, MD MPH.

It is now widely recognized that health and education are strongly linked. As such, the school is an effective platform for promoting better health. At the World Education Forum in Dakar (2000), the need for a new approach to school health was a key topic of discussion. It was agreed that collaboration across all sectors is a critical requirement for the successful implementation of effective school health and nutrition programs. Based on this agreement, a common framework for school health was established. The framework, Focusing Resources on Effective School Health (FRESH), recommends four components of school health: 1) equitable school health policies, 2) safe learning environment, 3) skills-based health education, and 4) school-based health and nutrition services. To be effective, it is imperative that ongoing and future efforts to achieve the goals and strategies embodied in FRESH consider lessons learned through direct country experiences and evidence from previous assessments. The Pan-American Health Organization (PAHO) took the lead in developing a comprehensive school assessment survey in order to measure the current status of school health in Latin America and the Caribbean. Results from a pilot test of the survey showed that a majority of the questions were completed with ease. Additionally, the questionnaire provided important insight for the country's unfinished school health policy, which was started in 2015. Overall, the pilot test proved to be very useful for assessing the current status of school health within a specific country. By establishing the specific needs within each country, the PAHO comprehensive school assessment survey can help inform school officials, government officials, and health officials on how to work together to come up with plans of action to improve school health.

IMPROVING CHILD AND ADOLESCENT HEALTH IN MARICOPA COUNTY: A REVIEW OF YOUTH HEALTH PROGRAMS AND SCHOOL HEALTH DATA ANALYSIS. **J. Zeien**. University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D. Campos-Outcalt, MD, MPA. Site and Preceptor: Maricopa County Department of Public Health, Office of School Health & Wellness Initiatives - Lilliana Cardenas, AM.

The Office of School Health & Wellness Initiatives (OSHWI) aims to improve child and adolescent health throughout Maricopa County. One avenue is the Youth Ambassador Program which educates youth on health issues and provides them with the skills to serve as community health advocates. Another avenue is the School Health Index (SHI) which provides information about the status of health programs and policies in elementary, middle and high schools across Maricopa County. The internship focused on: 1) conducting a literature review to find curricula and programs for educating adolescents; and 2) analyzing the SHI data to identify the strengths and weaknesses of schools. PubMed and Google were searched to locate programs and specific inclusion and exclusion criteria were used to narrow down the qualitative synthesis to 63 programs. The SHI data were analyzed on three different levels: module, module item and school. The literature review located 14 programs that did not fit into the pre-determined categories and were labeled as “Other”, eight of which involved photovoice and the other six involved health advocacy, social media activism and/or community-based service learning. The SHI results showed deficiencies in school health services (e.g., presence of school nurses), health education, and staff health promotion for all types of schools. Middle and high schools were also deficient in the availability of reproductive health services for students. Recommendations were made to incorporate photovoice, health advocacy, social media activism and community-based service learning into the Youth Ambassador Program. Based on the SHI data, it is recommended that OSHWI and the schools improve the health curriculum and staff health resources, advocate for nurses in every school, and provide reproductive health services to students.

**COST AND TREATMENT QUALITY ASSOCIATED WITH PAIRING EPIDEMIOLOGISTS WITH CONTACT INVESTIGATORS TO CONTROL TUBERCULOSIS INFECTION IN MARICOPA COUNTY. Z. Dedolph.**

University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D. Campos-Outcalt, MD, MPA. Site and Preceptor: Maricopa County Department of Health - Tuberculosis Control and Prevention Program - Aurimar Ayala - MPH.

In 2009 the Tuberculosis Control and Prevention Program (TCPP) at the Maricopa County Public Health Department (MCDPH) underwent a staffing change. In an effort to improve the quality of data collected via the Report of Verified Case of Tuberculosis (RVCT) form, epidemiologists were paired with nurse case managers to conduct tuberculosis contact investigations. As part of a larger study to analyze the cost-benefit impact of this staffing decision, a quality assurance and data quality study is in progress to determine whether the addition of epidemiologists to tuberculosis case management teams has resulted in 1) improved data completion rates and 2) improved accuracy of data collected, using the patient medical record as a standard of comparison. Tuberculosis case data from 2006-2015 was reviewed; 2009 was omitted as this year was designated a transitional period for the staffing change. Two periods were then collectively analyzed: the years 2006-2008 (pre-change) and the years 2010-2015 (post-change). Key variables from the RVCT form were identified then assessed for percent completion (the total fields completed per variable per period) and for percent accuracy (the total fields completed accurately per variable per period). Chi-square testing shows that significant improvement occurred to completion of RVCT patient drug susceptibility results during the post-change period and that there was a significant decrease in completion of patient culture conversion data. Additional research is needed to determine whether this could be attributed to other factors.. Though this work is ongoing preliminary results and public health literature demonstrate an ongoing need for tuberculosis program evaluation and improvement measures to ensure continuous availability of prevention resources.

**ACTION LAB: AN APPLIED PUBLIC HEALTH PROJECT FOR COLLECTIVE ACTION. B. Lott.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D. Campos-Outcalt, MD, MPA. Site and Preceptor: Maricopa County Department of Public Health - Becky Henry, MPH.

Background- Obesity and lack of physical activity are primary drivers of morbidity and mortality in Americans today. Finding ways to increase access to safe and affordable public recreation spaces is a public health priority. In communities across the nation, schools can address this need by opening their facilities during non-school hours, a practice called shared use. The Maricopa County Shared Use Initiative offers seed-funding to six teams of schools and community organizations to create unique shared use projects, while collaborating as part of a cohort in a process called an Action Lab. Methods- Action Labs bring people together to tackle a particular health challenge with focus on equity, a collective approach, a “bias toward action,” and a distinct structure with four phases: prep, Action Lab, sprint, and sustain. An internship was developed to take the Action Lab process and apply it to the topic of shared use in Maricopa County. Results- Six teams participated in the Action Lab process from October 2016 to February 2017, launching six diverse shared use projects across the County. A total of \_\_\_ community members used one of the six shared use sites within the first “100 days of action.” Participants reported that they felt it was valuable to come together as a larger group, that they valued learning from the other teams, and that the Action Lab process was a good way to “stay on task and motivated.” In the end, 91% of participants reported that they would be open to participating in a future Action Lab even without funding available. Conclusion- The Action Lab process was successfully adapted and applied to a Shared Use Initiative in Maricopa County and is a model that could potentially be used by local health departments in the future to create community partnerships and work toward a common goal.

ACCESS TO MENTAL HEALTH SERVICES AMONGST U.S. MILITARY VETERANS, DEPORTED TO TIJUANA, MEXICO. **J. Hanna.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: C. Rosales, MD, MS. Site and Preceptor: Deported Veterans Support House, Tijuana, Mexico - Eduardo González, PhD, MS.

Introduction: In the U.S., the VA Health System operates the largest integrated health care system. It provides access to comprehensive medical care to honorably discharged veterans of the U.S. armed forces. However, not all veterans are eligible to receive VA benefits. The primary internship objective was to identify and assess the health needs of the deported veterans, focusing on mental health needs. Second, identify-describe how deported veterans have responded to their current situation, how they are facing their health conditions "outside" of the VA Health System. Lastly, describe the VA Health system network as a whole and elaborate on the networks health sub-system. Methods: A questionnaire was developed and key informant interviews conducted. Each participant gave written permission and verbal consent for video recording of the session. In addition to the open-ended questionnaire provided to the veterans of the DVSH, participants received preventive health screening assessments. Findings: Seventeen participants (n = 17) were informed and consented to the interview. The age ranged from 36 to 74 years of age with an average age of almost 54. Many veterans are unaware of their mental health and non-mental health conditions. Data gathered from the DVSH during the health screening assessments, indicated the majority of veterans had elevated levels of blood pressure with an average of 132/82 mmHg. In addition, the majority of veterans had an average blood glucose of 121 mg/dL. Lastly, the majority of veterans weighed in with an average BMI of 28.4 kg/m<sup>2</sup>. Conclusions: It is essential that future studies inform public health policy and outreach to provide comprehensive health care services for deported veterans with chronic mental health illnesses.

**ARIZONA ACE CONSORTIUM-A COALITION EVALUATION. T. Swartz.**  
University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: D.  
Campos-Outcalt, MD, MPA. Site and Preceptor: Phoenix Children's Hospital -  
Center for Family Health and - Marcia Stanton, MSW.

Adverse childhood experiences (ACEs), such as neglect and abuse, impact childhood development and health negatively. In 1995, the Center for Disease Control (CDC) and Kaiser-Permanente worked in collaboration to conduct the Adverse Childhood Events (ACE) Study<sup>1</sup>. The study evaluated the effects of childhood neglect and abuse on health and wellbeing into adulthood using a questionnaire that assessed childhood exposures, risk factors and disease conditions. The findings document a dose response relationship between childhood abuse or household dysfunction and risk factors for disease and mortality, including ischemic heart disease, chronic lung disease and cancer<sup>2</sup>. In 2007, Marcia Stanton with the Center for Family Health and Safety (CFHS) and Building Strong Families at Phoenix Children's Hospital (PCH) started the Arizona ACE Consortium (The Consortium) with a stated vision of, "A just world in which individuals and families have the power, resources and support to create and live in strong communities where all understand the effects of their adverse experiences, build resilience in themselves and others, and acquire the tools to prevent adversity for future generations." Through quarterly meetings, workgroups, trainings and annual forums, The Consortium has grown to 350+ members, representing various professions and organizations, that share the same vision, to bring about awareness of the impact of ACEs and build resiliency in Arizona.



UNDERSTANDING SOCIAL DETERMINANTS & TRAUMA WHILE DEVELOPING CULTURAL EFFECTIVENESS: A SERVICE LEARNING EXPERIENCE IN AYACUCHO, PERU. **S. Fritsch.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: C. Rosales, MD, MS. Site and Preceptor: Adrienne Decker Delgado, LLC - Adrienne Decker Delgado, MSW.

From 1980-2000, Ayacucho, Peru served as the base of the Communist Party of Peru, more commonly known as the Shining Path militant rebellion. The extent of trauma experienced during this time has led to the development of unique cultural aspects which are of interest to public health and social work fields. Developing cultural effectiveness is crucial and speaking the language of public health is beneficial for students entering the social work field. Service learning methodology is an effective way to facilitate this learning. This project aims to create, deliver, and evaluate a new service learning curriculum which introduces undergraduate students to the convergence of social work practice and public health concepts to further enhance cultural effectiveness in the social services. The pilot cohort is exposed to five reciprocally supportive education modules with opportunities for participants to learn, discuss, reflect, and practice skills onsite in Ayacucho, Peru. Materials are adapted from the Centers for Disease Control and Prevention (CDC), the Substance Abuse and Mental Health Services Administration (SAMHSA)-Center for Integrated Health Solutions, and CommonHealth ACTION to introduce social determinants of health, trauma informed care, adverse childhood experiences (ACEs), cultural effectiveness, and privilege and oppression. The modules are paired with service at a local orphanage and experience at a forensic anthropology site. Three of the four levels of the Kirkpatrick model are used to evaluate learning. Pre- and post- survey modality and qualitative summative evaluation measure participants' individual and cumulative learning. Reflection activities promote the examination and interpretation of the experience using ORID focused conversation modality.

## AMBULATORY SURGICAL CENTERS PERFORMANCE ASSESSMENT.

**T. Ipsen.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair:  
C. Rosales, MD, MS. Site and Preceptor: Surgical Care Affiliates - Robert  
Harmon MBA, MHA.

Introduction-The Ambulatory Surgery Center Association (ASCA) released a current report that highlighted the issue of reducing the cost of surgery by transferring cases from inpatient/Hospital outpatient departments (HOPDs) to ambulatory surgery centers (ASCs). Today, procedures performed in ASCs cost Medicare 53% of the amount paid to the HOPDs. Surgical Care Affiliates (SCA) is a company that helps bridge healthcare systems with making the transition from HOPDs to ASCs in addition to improving clinical, operational, and financial systems. The purpose of this project was to improve overall performance and reduce the operational cost of Banner's surgical department. Methods-Data was gathered for quality metrics from Banner administrators, accessing Banners performance and patient/physician satisfaction, and distributing surveys to current physicians to help determine physician engagement/possible joint venture business opportunities. Results-In working with Banner, a plan to mobilize future actions and decision making to produce a higher turnaround of surgery at more affordable/profitable prices was achieved. This entailed directing a change of reconstituting policies, reporting mechanisms, and physician engagement in surgical center decisions. Banner was able to receive feedback and evaluation on their effectiveness, accessibility, and quality of the health services provided. This allowed a platform for change that could benefit both Banner and the community served. Conclusion-Working with and aligning intended outcomes in tandem with healthcare systems can help bring effective change in policies, improvements, innovations, and assurance that begin to gravitate towards the movement of improving and promoting a healthier public community.

**Session IX (Phoenix Only, AM):  
Health and Clinical Leadership  
8:40 – 11:00**

*(Phoenix Building 2, Room 2206)*

**Abstracts**

ANALYSIS OF EXPEDITED PARTNER THERAPY FOR CHLAMYDIA AND GONORRHEA IN MARICOPA COUNTY. **B. Ebbing.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: Maricopa County Department of Public Health STD Clinic - Melanie Taylor MD, MPH.

Chlamydia and gonorrhea are among the most frequently reported infectious diseases in the United States. These two diseases are easily treated with antibiotics; however, challenges exist in providing treatment to sexual partners. The expedited partner therapy (EPT) program provides treatment to partners of known contacts. The partners are not required to come into the clinic for examination or testing. This has been a legal practice in Arizona since 2006. The EPT program helps reduce the spread of these highly curable asymptomatic STDs. Ultimately, this project sought to inform other public health departments across the country regarding ways to increase utilization of EPT by healthcare professionals. Existing data were analyzed from April 1, 2011 to October 31, 2014 (42 months) for all patients that received EPT at the Maricopa County Department of Public Health utilizing electronic health records. The following information was collected from these data sources: gender, age, race/ethnicity, diagnosis, zip code, and pregnancy status. There were 205 patients in this analysis; 183 (89.3%) diagnosed or in contact with chlamydia and 14 (6.8%) diagnosed or in contact with gonorrhea. The median age of the patients was 26.0 (range 18.6-33.5); 145 (70.7%) were male. Most patients (80%) lived outside of central Phoenix. Most patients were Hispanic (50.7%) or Caucasian (17.1%). Many of the patients that received EPT are young men who lived outside of Central Phoenix. This study demonstrates the effectiveness of EPT in treating patients that are typically hard to reach. However, there is still confusion between healthcare professionals about when they are legally allowed to provide EPT. EPT marketing materials were created to be distributed to healthcare professionals throughout Maricopa County.

**JUNTOS POR LA SALUD PRIMARY PREVENTION MOBILE UNIT  
IMPROVES ACCESS TO CARE IN MARICOPA COUNTY. M. Fah.**

University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: University of Arizona Mel & Enid Zuckerman College of Public Health, Phoenix - Omar Contreras-Escontrias, MPH.

**BACKGROUND:** Significant health disparities exist among Hispanic individuals residing in Maricopa County and there is a need for chronic disease screening and management among this population. While mobile health units improve access to care, little literature exists regarding the utility of mobile units as a link to ambulatory care centers for uninsured, undocumented individuals. **OBJECTIVE:** To provide evidence-based chronic disease screening services to medically underserved individuals in Maricopa County and improve access to care through connecting the community to local Federally Qualified Health Centers (FQHCs). **METHODS:** A multidisciplinary team of health sciences students was established to provide screening services to the community. Based on results of a healthcare needs assessment, five areas of health focus were identified. Evidence-based guidelines for primary screening services were reviewed to determine appropriate screening interventions. A secondary analysis was performed on descriptive data collected from 2/1/16 to 1/31/17. **RESULTS:** During the first year, 1,288 patients were seen at the mobile unit, with 32% men and 68% women. Of these patients, 100% received age-appropriate screening for chronic disease and age appropriate risk factor-related education. Screening for cardiovascular disease, diabetes, and obesity was performed and patients educated on diet, exercise, tobacco cessation, cancer screening, and sexually transmitted infections. Referrals to FQHCs were provided for patients as needed. **CONCLUSIONS:** A primary prevention mobile unit was successfully implemented and patients received appropriate screening interventions and referrals to nearby clinics. Juntos por la Salud and other mobile units may provide an important role of diminishing barriers to care in underserved communities.

**MOSQUITO BORNE ILLNESS IN THE MODERN WORLD: PUBLIC HEALTH CHALLENGES AND SOLUTIONS. C. McCabe.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: Arizona Department of Public Health - Bentley Bobrow, MD.

One of the most pressing global health issues in the 21st century is mosquito borne disease. Collectively, vector borne disease accounts for 17% of infectious disease globally, affecting approximately a billion people per year and killing approximately one million of those affected. A very large proportion of these diseases are vectored by various species of mosquito. This report focuses on four diseases vectored by mosquitos: dengue fever, zika virus, chikungunya and malaria. Currently the mainstay of addressing mosquito borne disease is focused on insecticide application and mosquito habitat destruction. This has proven to be only partially effective in reducing the transmission of mosquito vectored illness and new techniques must be considered to advance the effort to reduce and eradicate the spread of mosquito borne illness. There are three different techniques that have not been utilized on a large scale to either reduce mosquito populations or reduce disease transmission rates. Transgenic mosquito releases, Wolbachia bacteria and sterile insect technique (SIT) are all promising methods for reducing global mosquito borne illness disease burden. More large scale field testing research projects are necessary to move forward with widespread use of these techniques. There are many challenges to implementation of these techniques, including political inertia, a lack of public health infrastructure and man-power, negative public perception and difficulty in securing adequate funding. There are many ways to overcome these challenges and recommendations for addressing these challenges will help researchers and public health policymakers establish new mosquito borne disease mitigation research projects.

INCREASING INSURANCE LITERACY FOR THE HEALTH PROFESSIONS STUDENTS OF ARIZONA. **J. Moseley**. University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: Arizona Center for Rural Health - Alyssa Padilla, MPH.

Partner/Setting: Project SHARE (Students Helping Arizona Register Everyone) was developed under the Arizona Center for Rural Health Navigator Consortium to train health professional students as Certified Application Counselors in partnership with the Western Region Public Health Training Center and Regional Center for Border Health, Inc. Trained, licensed and certified health professional students then worked throughout Pima and Maricopa Counties to assist consumers with health insurance basics and enrollment. Methods/Activities: Through training, SHARE students learn about the Affordable Care Act (ACA), and the Health Insurance Marketplace. Students use this knowledge to provide assistance at outreach events and during the Open Enrollment period for the Marketplace. SHARE helps staff Enrollment Events and assists on the University of Arizona campus during SHARE Office Hours held at the UA Health Sciences Library. Results and Outcomes: Students who took part in SHARE demonstrated improved understanding of multiple aspects of the American health insurance system. Of the students who completed the Pre and Post-course survey, 100% of respondents following completion of the SHARE program reported that they “Agree” or “Strongly Agree” that they understand the basic components of the Affordable Care Act. Following the course, every student who submitted the post-course survey responded that they felt somewhat or very comfortable speaking with friends and colleagues regarding the ACA. When comparing before and after taking the SHARE curriculum, students improved by 33 percentage points regarding their understanding of how AHCCCS operates in Arizona.

EVALUATION OF AN OPT-OUT HIV SCREENING PROGRAM IN THE MARICOPA COUNTY JAILS AND FOLLOW UP OF INDIVIDUALS NEWLY DIAGNOSED WITH HIV THROUGH THE OPT-OUT SCREENING PROGRAM. **E. Nelson.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: Maricopa County Public Health Department and Maricopa County Jail - Melanie Taylor, MD, MPH.

Since inmates are a population disproportionately affected by HIV, correctional facilities are an important setting for delivering HIV services. In 2011, an opt-out HIV screening program was implemented in the Maricopa County Jails (MCJ). The aims of this study were to determine for the years 2012-2014: • Number of inmates screened for HIV • HIV positivity rate • Number and clinical characteristics of newly diagnosed patients • Number of patients connected to community services after release Retrospective chart review was performed to collect demographics, laboratory data, risk factors, and number linked to care. The HIV case manager was shadowed during patient appointments. A total of 319,575 persons were booked and 46,346 were screened (14.5%) for HIV. HIV positivity rate was 0.15%. There were 70 newly diagnosed cases. Undiagnosed HIV was more likely in males rather than females ( $p=0.02$ ), African Americans ( $p=0.04$ ), and younger patients ( $p=0.003$ ). Of the newly diagnosed, 28 patients (40%) received Ryan White services after release from jail. Undiagnosed HIV is an important issue among individuals booked into the MCJ. IV drug use, other STDs (particularly syphilis), high-risk sexual activity, and homelessness were also common. Surveillance, including patient education on the importance of screening, should be continued. Furthermore, targeting of high-risk populations may result in even greater numbers of individuals being diagnosed and treated. Within the next year, all patients at the MCJ will be offered STD screening, which may result in increased HIV screening. Although there were many barriers to ensuring patients received a case management appointment and care after release, these services are an important step for delivering education about HIV and available community resources.



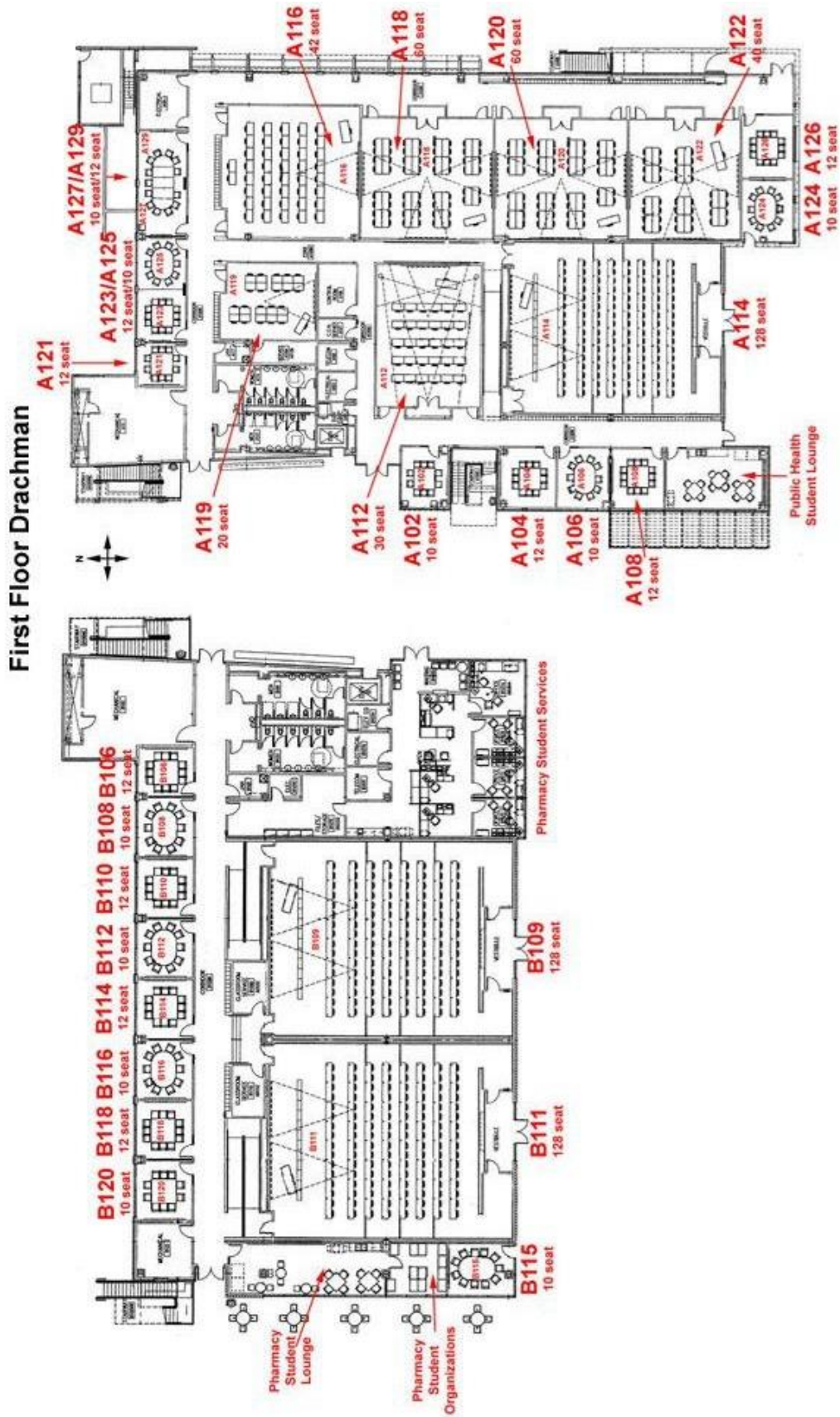
**INTEGRATIVE MEDICINE IN UNDERSERVED POPULATIONS: IDENTIFYING BARRIERS TO CARE AND EXAMINING POTENTIAL PUBLIC HEALTH INTERVENTIONS. J. Perkins.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: University of Arizona College of Medicine - Phoenix - Dr. Farshad Fani Marvasti.

Addressing comprehensive healthcare in underserved populations is a multidimensional, complex issue and solutions are being sought on all levels of intervention. Integrative medicine (IM) is a promising field of practice that has been shown to help reduce overall healthcare costs, alleviate the heavy burden of chronic disease, bolster efforts focused on preventive measures, and improve both patient outcomes and practitioner well-being. Two concerns addressed in this investigation include the limited amount of available IM training for healthcare providers and the continuing health discrepancy in providing IM care for underserved populations. To meet a growing demand for easily accessible, ongoing professional education in IM, the Arizona Center for Integrative Medicine launched an innovative curriculum called the Integrative Medicine in Residency (IMR). A recent investigation developed a brief follow-up instrument for IMR graduates, and valuable feedback was obtained from a small cohort of physicians regarding their experience with the curriculum as well as how training has served them since graduation. Students were largely satisfied with their education and pleased with the personal and professional impacts following IMR; however, barriers to care most notably reported were time, cost, and patient receptivity. Graduates also found it particularly challenging to implement IM in underserved populations, consistent with previous publications. This study reviewed common barriers to care and researched current strategies to help overcome such obstacles. Topics such as outreach, education, advocacy, research, prevention, patient empowerment, self-care, and reimbursement strategies are all discussed as potential tools to help increase affordable, accessible integrative healthcare for all.

COMMUNITY PARAMEDICINE & MOBILE INTEGRATED HEALTH CARE INITIATIVES IN MARICOPA COUNTY. **O. Zoph.** University of Arizona, Phoenix, AZ. MPH Internship Committee Chair: M. Moe Bell, MD. Site and Preceptor: University of Arizona - Jonathan Fisher, MD, MPH.

Community Paramedicine & Mobile Integrated Healthcare (CP-MIH) are new and evolving models of community-based care in which Emergency Medical Services (EMS) providers step outside of their traditional emergency response roles to address additional healthcare needs of the communities they serve. Additionally, MIH initiatives incorporate non-EMS healthcare personnel in the prehospital setting to efficiently and effectively connect people with timely and appropriate care. CP-MIH programs expand pre-hospital efforts to enhance access to primary care and preventative services using existing resources. These programs have increased nationally. CP-MIH interventions vary greatly to address individual community needs. Additionally, their interventions are influenced by legislation, key stakeholders and funding sources. Within Maricopa County, there are seven established CP-MIH programs with formal written processes. Four of the CP-MIH initiatives are expansions of existing municipal fire departments. These programs incorporate a wide breadth of primary care and preventative services to enhance access and decrease healthcare costs. The remaining three programs are formal, internally-funded partnerships between a healthcare organization and a municipal fire department. These programs focus their efforts to decrease emergency department (ED) overutilization and hospital readmissions. CP-MIH efforts continue to grow within Maricopa County, with over ten programs in development. Robust data on the efficacy of CP-MIH programs is lacking nationally, however early reports yield promising results.

# Drachman Hall Map



## **The MPH Internship Experience**

From the inception of the Master of Public Health Program in 1993, the culminating experience of the program's curriculum has been the internship. In the fall of 1999, MPH faculty determined that students needed a formal setting for making their oral presentations. A committee comprised of faculty, students, and student services professionals was formed to develop an appropriate presentation venue. In November 1999, the MPH Program debuted its first MPH Internship Conference. The format of the conference, held each fall and spring, is similar to that of a professional or scientific meeting. A keynote speaker opens the meeting and the remainder of the conference is comprised of several concurrent sessions of student presentations grouped by theme.

Since its establishment, the MPH Internship Conference has grown in stature and significance to the Mel and Enid Zuckerman College of Public Health (MEZCOPH). The College uses this event as a public health networking tool by inviting public health practitioners, partners, and alumni throughout the state. The key to its success lies in the student participation. The MPH Internship Conference is a student-run production. Students coordinate the multitude of details involved in its planning, promotion, and culmination; student presentations are its foundation.

Through contributions they have made and the benefits they have gained, the Internship Conference reflects the indelible handprint of MEZCOPH students on public health projects and agencies throughout the world.



THE UNIVERSITY OF ARIZONA

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