



# ANNUAL *report* 2017

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*The AHEC program was developed by Congress in 1971 and there are 56 AHEC programs and 235 centers in 48 U.S. states and territories. Arizona's first regional center opened in Nogales in 1984. Today, five regional centers are serving Arizona by supporting health professions education, providing continuing education for health professionals, and addressing health disparities and local health workforce issues. Our programs support development of our children, our health professions students and our health professions workforce as well as recruitment and retention of a highly skilled health professions workforce. The regional centers also support many health careers programs including students in medicine (both allopathic and osteopathic medical students), nursing, pharmacy, public health, dentistry and allied health.*

## Arizona AHEC Program Mission Statement

To enhance access to quality health care, particularly primary and preventive care, by improving the supply and distribution of health-care professionals through academic-community educational partnerships in rural and urban medically-underserved areas.

## Program Highlights

### Rural and Urban Underserved Field Experiences for Health Professions Trainees

During the period July 1, 2016-June 30, 2017, the Arizona AHEC supported the following:

Academic Discipline/Program	# Field Experiences
Dentistry and Dental Hygiene	35
Medical Residency	52
Medical School	739
Nurse Practitioner	185
Nursing or Medical Assistant	117
Pharmacy School	279
Pharmacy Residency	2
Physical and Occupational Therapy	2
Physician Assistant	67
Public Health	180
Registered Nurse, Nurse Anesthetist, or Nurse Midwife	82
Social Work and Behavioral Health	2
Other Allied Health	57
Other Undergraduate Health-related Disciplines	33
<b>TOTAL*</b>	<b>1,832</b>

*\*Of this total, 909 field experiences were reported by the Rural Health Professions Programs – at the University of Arizona (UA), Arizona State University and Northern Arizona University – and other supported UA health professions training programs.*

### Health Career Preparation Programs for grades K–12 in Rural and Urban Underserved Areas

#### Total of 7,597 K–12 students and adult participants\*

\*Nearly 1,400 K-12 students participated in 64 health career preparation clubs across all regional centers. Additionally, over 6,200 students and adults participated in other health career events. Adult participants included parents, teachers and interested community members. The adults represented joint participation. See the regional centers' reports for example activities.

### Continuing Education for Health Professionals

#### Total of 8,097 participants

Participants at 264 continuing education events included physicians, dentists, public health professionals, pharmacists, nurse practitioners, registered nurses, physician assistants and allied health professionals.

### Research and Project Grants for Students, Faculty and Community Organizations

▶ 9 new grants      ▶ 3 continuing grants      ▶ 7 completed grants

*AzaHEC is a sponsored project of the University of Arizona. The AzaHEC program office is located at the University of Arizona Health Sciences (pictured).*



# Message from the Director



**Sally J. Reel, PhD, RN, FNP, FAAN**

*Associate Vice President for Interprofessional Education, Collaborative Practice & Community Engagement*

*Director, Arizona Area Health Education Centers*

*University Distinguished Outreach Professor*

*Clinical Professor of Nursing*

I am pleased to introduce the 2017 Arizona Area Health Education Centers (AzaAHEC) Annual Report. AzaAHEC began serving Arizona in 1984 and continues to support health workforce development for our rural and urban underserved communities today. This report highlights our 2017 achievements, particularly with respect to improving the quality and supply of healthcare professionals to serve Arizona residents through community-based clinical and experiential student training. Our annual report features some of the programs such as the Rural Health Professions Program that impact training students to be practice-ready for underserved populations.

AzaAHEC also implemented a new IT system, Salesforce, in 2016. Improvements in data

collection allow us to provide greater details about who trains in the AzaAHEC system and snapshots of students trained in 2017 are shown on page 3, Arizona AHEC Rotations by Trainee Institution and page 4, Arizona AHEC Rotation Hours, Number of Rotations and Number of Trainees. As example, page 3 shows that over 40 institutions of higher learning placed students within the AzaAHEC system in 2017. Community-based clinical training by center is also captured in greater detail as shown (community-based clinical/experiential training refers to student clinical training within their respective discipline in practice sites located in communities rather than a university clinical setting as an example).

Successful community-based experiential training hinges on collaboration with health professionals throughout the state to facilitate clinical training opportunities for health professions students. These experiences expose student to the realities of practicing in rural and urban underserved settings as well as exposes students to the diverse populations residing in Arizona. Through AzaAHEC support students (where eligible or available) may also receive housing, mileage, and community support. Through service-learning students interact with Arizona's various underserved communities in meaningful ways including providing clinical care under preceptor supervision and connecting classroom learning with the realities of community-living.

The University of Arizona successfully competed AzaAHEC for federal funding renewal in 2017 received 5-year funding through 2022. This sustained federal funding goes back to AzaAHEC's inception with UA's first federally funded center in 1984. From federal inception of the AHEC programs in 1971, the mission of AHEC's work has historically focused on improving access to quality health care for rural and urban medically underserved populations and communities through health workforce preparation. AHEC has also historically embraced improving diversity of the health workforce, interdisciplinary and interprofessional education, and strengthening geographic dispersion of the health workforce. AzaAHEC programs create exposure and educational opportunities for our youth, engage our health professions students through community based training programs in our rural and urban underserved communities with an emphasis on primary care.

This 2017 report provides brief snapshots of the rural, border and tribal rotations that our trainees experienced. When Arizona's rural, border, and diverse communities are considered collectively, too many Arizona residents experience higher rates of disease and disability, increased mortality rates, years of life lost and higher rates of chronic illness. What is more, geography matters as geography alone impacts health. AzaAHEC's strategies are embedded in some of our most underserved communities—rural, frontier, and border communities as demonstrated throughout this report. I am pleased to present this 2017 report for your review.

## Arizona AHEC Rotations by Trainee Institution, 7/1/16 - 6/30/17

CENTER REPORTED ROTATION HOURS							
Name of Educational Institution	EAHEC	GVAHEC	NAHEC	SEAHEC	WAHEC	Total Center Hours	% to All Center Hours
A. T. Still University	2,400	1,802	34,784	1,840		40,826	33.1%
Northern Arizona University (ALL) <sup>(1)</sup>	1,017	1,350	17,005	1,680	1,540	22,592	18.3%
University of Arizona (ALL) <sup>(2)</sup>	1,140	1,215	3,410	6,350	480	12,595	10.2%
Eastern Arizona College <sup>(3)</sup>	11,502					11,502	9.3%
College of Health Careers <sup>(4)</sup>	0	0	0	0	11,435	11,435	9.3%
Midwestern University	3,040	192	2,016	2,712		7,960	6.5%
Residency Programs <sup>(5)</sup>	160		1,100	1,440	112	2,812	2.3%
Chatham University					1,686	1,686	1.4%
Arizona State University	310	1,235	0	0	0	1,545	1.3%
Gila Community College	1,477					1,477	1.2%
Pima Medical Institute	1,056					1,056	0.9%
Marquette University	720					720	0.6%
Rocky Mountain University of Health Professions	720					720	0.6%
Brigham Young University		616				616	0.5%
Icahn School of Medicine at Mt. Sinai				600		600	0.5%
Walden University			504			504	0.4%
Orion College			400			400	0.3%
Chamberlain College of Nursing			250		120	370	0.3%
Grand Canyon University			320		50	370	0.3%
Paradise Valley Community College		352				352	0.3%
Universidad del Valle de Mexico				336		336	0.3%
Iowa State University		320				320	0.3%
Northland Pioneer College			320			320	0.3%
Seattle Pacific University			240			240	0.2%
University of Minnesota		240				240	0.2%
Georgetown University			200			200	0.2%
University of Houston		182				182	0.1%
Mohave Community College			180			180	0.1%
San Joaquin Valley College			180			180	0.1%
University of South Alabama			180			180	0.1%
Idaho State University (ISU)			160			160	0.1%
University of New England			160			160	0.1%
Mesa Community College			132			132	0.1%
Central Arizona College	128					128	0.1%
Universidad Kino				96		96	0.1%
Zürcher Hochschule für angewandte Wissenschaften (Zhaw)			75			75	0.1%
Capella University	40					40	0.0%
Grinnell College			10			10	0.0%
University of Colorado			10			10	0.0%
Other U.S. institution			8			8	0.0%
<b>Grand Total</b>	<b>23,710</b>	<b>7,504</b>	<b>61,644</b>	<b>15,054</b>	<b>15,423</b>	<b>123,335</b>	<b>100.0%</b>

**FOOTNOTES:**

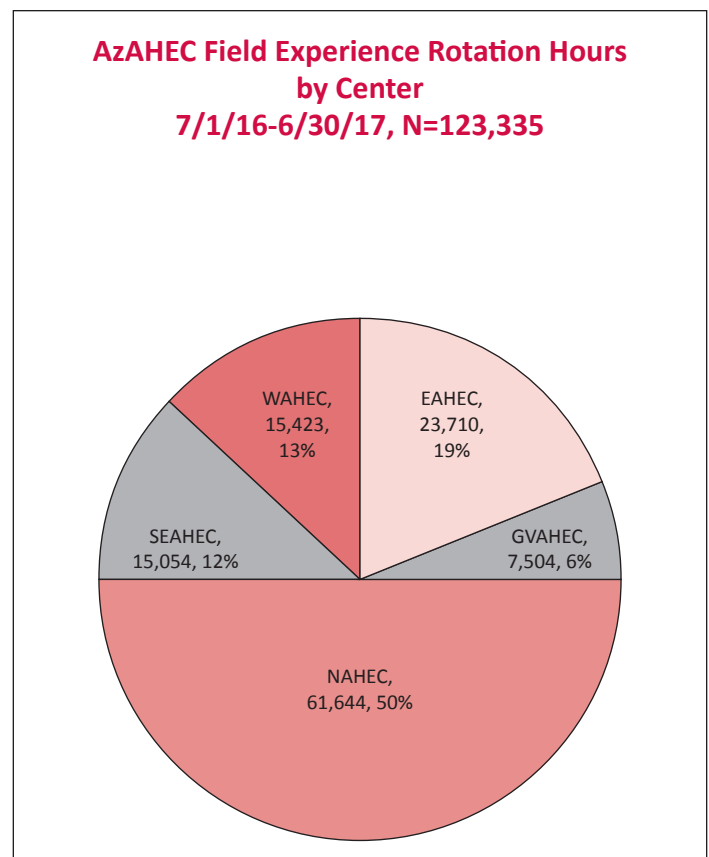
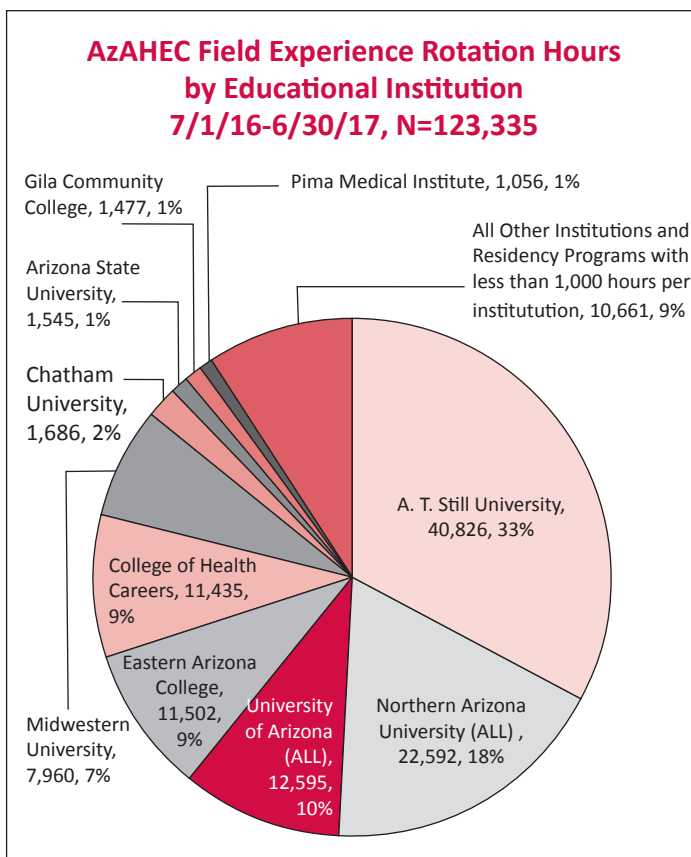
1. Northern Arizona University (ALL) = Departments of Dental Hygiene, Health Sciences, Occupational Therapy, Physical Therapy and Athletic Training, Physician Assistant Studies and School of Nursing
2. University of Arizona (ALL) =College of Nursing (Nurse Practitioner Students) and Colleges of Medicine-Phoenix and Tucson (Medical Students)
3. Eastern Arizona College = Registered Nurse Program
4. College of Health Careers= Entry Level Allied Health Program This is an educational entity of Regional Center for Border Health
5. Residency Programs: EAHEC = University of Arizona/South Campus; NAHEC= North Country Health Care Community Pharmacy Residency; SEAHEC= Banner University Medical Center; WAHEC= Yuma Regional Medical Center

## Arizona AHEC Rotation Hours, Number of Rotations and Number of Trainees, 7/1/16 - 6/30/17

Location	Total Rotation Hours <sup>(1)</sup>	Number of Rotations <sup>(2)</sup>	Total Trainees <sup>(3)</sup>
<b>EAHEC</b>	<b>23,710</b>	<b>120</b>	<b>106</b>
Clinical Field Experience <sup>(4)</sup>	23,654	119	
Non Clinical Field Experience <sup>(5)</sup>	56	1	
<b>GVAHEC</b>	<b>7,504</b>	<b>228</b>	<b>219</b>
Clinical Field Experience <sup>(4)</sup>	2,767	19	
Non Clinical Field Experience <sup>(5)</sup>	4,737	209	
<b>NAHEC</b>	<b>61,644</b>	<b>450</b>	<b>168</b>
Clinical Field Experience <sup>(4)</sup>	48,456	378	
Non Clinical Field Experience <sup>(5)</sup>	13,188	72	
<b>SEAHEC</b>	<b>15,054</b>	<b>142</b>	<b>133</b>
Clinical Field Experience <sup>(4)</sup>	13,538	102	
Non Clinical Field Experience <sup>(5)</sup>	1,516	40	
<b>WAHEC</b>	<b>15,423</b>	<b>156</b>	<b>148</b>
Clinical Field Experience <sup>(4)</sup>	14,883	155	
Non Clinical Field Experience <sup>(5)</sup>	540	1	
<b>TOTAL CENTERS</b>	<b>123,335</b>	<b>1096</b>	<b>774</b>

**FOOTNOTES:**

1. Total Rotation Hours reflects all community based clinical and non clinical hours reported by center, regardless of discipline of trainee, number of rotations or number of trainees
2. Total Number of Rotations reflects all community based and non-clinical unique rotations reported by center, regardless of length of rotation or discipline of trainee
3. Total Trainees reflects number of trainees (i.e. students/residents) reported by center, regardless of length or amount of rotations, or discipline of trainee
4. A clinical field experience occurs when a trainee is precepted by a faculty member or other professional in the discipline in which the trainee is seeking a degree. These must meet the accrediting and legal standards as defined by the degree-granted institution/college and all preceptors must be vetted by that institution/college.
5. A non-clinical experience occurs when the student does not have an experience that is directly meeting disciplinary requirements





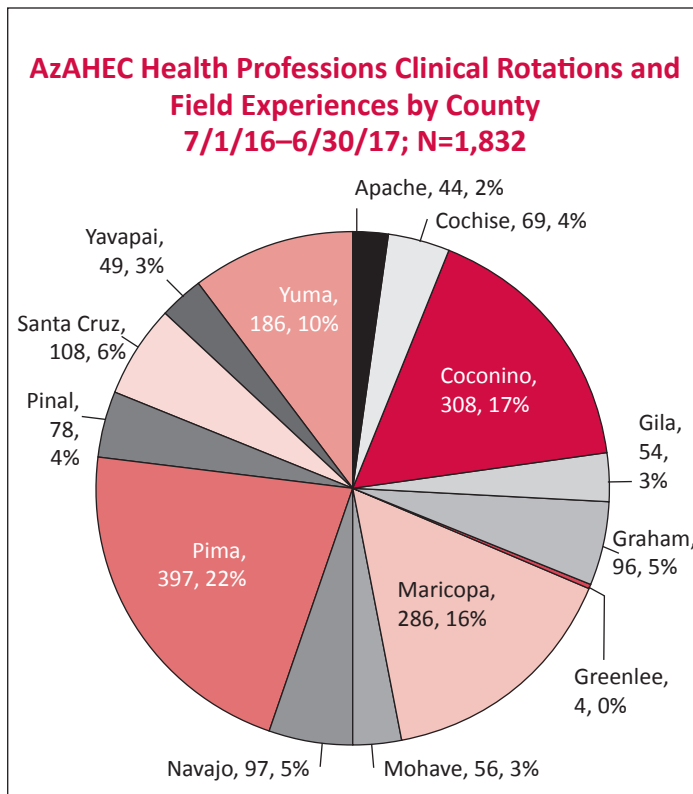
# Program Overview

## About the Arizona AHEC Program

1. Started in 1984 with the formation of the first regional center in the border town of Nogales, 13 years after the United States Congress developed the nationwide AHEC system to recruit, train and retain a health professions workforce committed to helping underserved populations
2. Expanded statewide by 1989 to include five regional centers serving all 15 Arizona counties
3. Is a sponsored project of the University of Arizona
4. Is cited in Arizona Revised Statutes (ARS) § 15-1643, § 15-1644, § 15-1645 and § 5-572 (C)
5. Operates with funds from federal and state sources

## Structure

The Arizona AHEC Program comprises five regional centers located strategically statewide and an administering “home” office based at the University of Arizona (UA). The centers carry out the program’s mission by creating, coordinating and implementing a scope of work designed to address the health professions education and training needs within their service regions.



Percentages are rounded to the nearest whole percent.

The Arizona AHEC Program director consults regularly with two advisory committees: the Arizona Health Sciences AHEC Advisory Committee, whose members represent the UA Colleges of Medicine – Tucson and Phoenix, Nursing, Pharmacy and Zuckerman College of Public Health; and the Arizona AHEC Advisory Commission, who represent health educators, health professionals and community members serving and/or living in rural and urban medically underserved communities throughout Arizona.

In addition to these two advisory bodies, each regional center has its own governing board, comprised of healthcare providers and consumers who reflect the ethnic representation of the center’s geographic area.

## Focus Areas 2016–2017

During the past year, the Arizona AHEC Program’s regional centers sustained and improved their statewide efforts to strengthen Arizona’s health professions workforce through a variety of activities targeting K-12 and post-secondary health professions students as well as health professionals across a wide range of disciplines. In addition, the regional centers supported many educational activities designed to promote health awareness throughout their communities.

**Health Professions Trainee Education:** Trainees pursuing careers in the health professions benefited from AzaAHEC-supported clinical rotations and internships. The regional centers helped these trainees by providing them with in-depth orientations to the local communities. Some trainees also received funding support for housing, travel, and related expenses. These training opportunities are possible because of the guidance of dedicated and experienced preceptors and others healthcare providers as well as strong academic partnerships with Arizona’s colleges and universities.

**Youth (K-12) Health Career Programs:** The regional centers supported numerous activities throughout the year to introduce Arizona’s rural and underserved youth to health careers. Personnel at each center worked with local high schools to support health career clubs and Health Occupations Students of America (HOSA) chapters.

**Continuing Education for Health Professionals:** The regional centers sponsored numerous continuing education opportunities throughout the year for health professionals statewide.

**Community Health Promotion:** In addition to helping build and support a culturally competent health professions workforce, the regional centers coordinated and supported health education activities and events for their local communities. Each center maintains a list of collaborators.

# Education and Training of Arizona's Health-Care Workforce:

## *Rural Health Professions Program, Academic IPE, Research and Practice*

Health-care providers of the future must be ready for team practice regardless of context. AzaHEC supports IPE on many levels, including rural health practice settings, classroom learning and research. Rural and medically underserved settings are rich contexts for IPE. Fundamentally, rural health settings have supported interdisciplinary training and practice for many years. Access to care for rural and underserved communities, health professional workforce shortages, and populations that need comprehensive care and prevention approaches have underpinned calls for team-based care for many years. Today, many of those initial drivers for team-based, interdisciplinary care underscore the need for a collaborative-practice-ready health-care workforce that provides quality, patient-centered care and integrated, comprehensive care coordination; ensures patient safety; achieves care value; manages population health and addresses health-care workforce shortages.

Preparation of the Arizona health-care workforce must emphasize rural, border and diversity issues as well as health disparities and social determinants of health. This context demands ensuring that medical, nursing, pharmacy, public health, allied health and other health-care professionals have educational experiences that prepare them for rural and urban medically underserved practice. Our participating colleges and programs have successful strategies to recruit students into rural practice preparation programs. Through the AzaHEC-supported Rural Health Professions Program (RHPP), our students are educated and trained in rural and urban medically underserved communities. Greater integration and formalization underpins current IPE strategies essential to preparing rural health providers to practice collaboratively in teams. Through partnership with our AzaHEC regional centers, we are piloting team-based rotations as well as using telehealth technologies to deliver real-time virtual simulation learning for students who are geographically dispersed. Through an all-program interprofessional approach, students learn how to practice culturally sensitive and competent care.

In the following sections, participating colleges provide reports of their RHPPs. Additional highlights include our annual interprofessional RHPP conference; rural training tracks threaded across multiple opportunities, including medical residency training; and AzaHEC-supported IPE events and research projects.



**Interprofessional education (IPE)** is foundational to improving health-care practice and patient care. IPE involves educators and learners from two or more health professions and their foundational disciplines who jointly create and foster a collaborative learning environment. In this environment, learners develop the competencies core to effective, collaborative, patient-centered practice that is focused on improving patient outcomes through evidence-based, quality-driven and technology-enabled methods. IPE aims to develop mutual understanding of and respect for the contributions of various professions and disciplines, thus, socializing health-care providers to work together as a team; share problem-solving and decision-making responsibilities; and improve health care for patients, families and communities. The University of Arizona Health Sciences (UAHS) seeks to become a nationally-recognized premier institution for IPE by 2020, and AzaHEC is proud to serve as a partner in developing interprofessional education and practice models that effectively train our students to practice in teams within our communities.

# Arizona Rural Health Professions Program (RHPP)

The Arizona Rural Health Professions Program (RHPP) is a core program supported by AzaHEC since FY 2007. The Arizona State Legislature created the RHPP in 1997 (ARS § 15-1754) to address shortages of health professionals in Arizona’s rural communities. The RHPP provides rural training experiences for students from the University of Arizona (UA), Arizona State University (ASU) and Northern Arizona University (NAU). Under legislation each year, the participating schools select 15 medical students from the UA College of Medicine, four pharmacy students from the UA College of Pharmacy and 10 nurse practitioner students—four from the UA, four from ASU and two from NAU—to participate in the RHPP. The RHPP is voluntary for student participation but mandatory for the three participating state universities. Beyond the statute, AzaHEC also supports training experiences for public health students at the UA Mel and Enid Zuckerman College of Public Health.

The RHPP is central to the mission of AzaHEC to help prepare the health-care workforce for practice in rural and urban underserved communities. While the RHPP statute addresses rural Arizona communities, AzaHEC also supports training experiences in Arizona’s urban medically underserved communities in order to address primary care provider shortages in both rural and urban areas. Since AzaHEC initiated financial support of the RHPP, the number of participating students has significantly increased above the statutory requirement, thus exposing a greater number of health professions students to the importance, unique challenges and professional rewards of rural and underserved practice. In 2016–2017, the RHPPs at the UA, ASU and NAU reported a total of 843 training experiences.

**Clinical Practice Intentions of the RHPP Class of 2016**

RHPP	# RHPP Track Graduates	Intend to practice in a medically underserved community		Intend to practice in a rural community		Intend to practice primary care		Intend to practice in Arizona	
		#	%	#	%	#	%	#	%
ASU College of Nursing & Health Innovation	7	6	85.7%	3	42.9%	7	100.0%	6	85.7%
NAU School of Nursing	35	23	65.7%	25	71.4%	34	97.1%	33	94.3%
UA College of Medicine – Phoenix*	1	0	0.0%	1	100.0%	0	0.0%	1	100.0%
UA College of Medicine – Tucson	18	18	100.0%	13	72.2%	14	77.8%	12	66.7%
UA College of Nursing	5	5	100.0%	5	100.0%	5	100.0%	4	80.0%
UA College of Pharmacy	15	14	93.3%	12	80.0%	8	53.3%	11	73.3%
<b>TOTAL</b>	<b>81</b>	<b>66</b>	<b>81.5%</b>	<b>59</b>	<b>72.8%</b>	<b>68</b>	<b>84.0%</b>	<b>67</b>	<b>82.7%</b>

\*The UA College of Medicine – Phoenix class of 2016 RHPP graduate began the program under UA College of Medicine – Tucson administration. The first RHPP class from the independent UA College of Medicine – Phoenix RHPP will graduate in 2017.

## The University of Arizona College of Medicine – Tucson Rural Health Professions Program

**Carlos R. Gonzales, MD, FAAFP**

*RHPP Director*

*Assistant Dean, Curricular Affairs*

*Associate Professor, Family and Community Medicine*

The UA College of Medicine – Tucson (UA COM-T) RHPP continues to offer rural and urban underserved clinical rotations in family medicine, general surgery, internal medicine, medicine/pediatrics, obstetrics/gynecology, and pediatrics, thanks to a dedicated network of volunteer physician preceptors throughout Arizona. Students have the opportunity to participate in these community-based rotations during the summer after their

first year of medical school; as well as during their third and fourth years of medical school. An objective of the RHPP is for students to have a minimum of ten weeks of rural clinical training during their medical education at the UA COM-T. The college strives to place each RHPP student in a situation where she/he will have an opportunity for a longitudinal experience in the same rural location with the same preceptor, patients and community.

The RHPP is a competitive program and admitted 26 new first-year medical students in fall 2016. Combined with the second, third and fourth year classes, there are a total of 101 RHPP students continuing to participate in this longitudinal program at this time. In addition to supporting these RHPP students, AzaHEC funding allows non-RHPP students, who are interested

*Continued on page 8*

## UA College of Medicine – Tucson RHPP

Continued from page 7

in rural medicine and urban underserved medicine, to participate in clinical rotations in rural and underserved communities. During 2016–2017, the RHPP supported 289 clinical rotations for RHPP and non-RHPP students, totaling 69,733 hours of community-based training. The Class of 2017 included 22 RHPP graduates, of whom eight are remaining in Arizona for residency, thirteen are entering primary care residency programs, and one is starting a general surgery residency.

In 2016, the UA COM-Tucson Educational Policy Council (T-EPC) approved the establishment of a **Rural Health Distinction Track (RHDT)**. This is an opportunity to expand and enhance RHPP, by ensuring that those students who are dedicated to the provision of healthcare in rural Arizona have the option to fully explore this reality. They are subsequently recognized for their commitment to this idea with a Certificate of Distinction upon graduation, which includes a medallion and documentation on their official transcript. This RHDT requires at a minimum

an additional experience of 6 more weeks during their third and/or fourth year of medical school and a researched Capstone paper. There were 16 students in the class of 2017 RHPP participants who choose to obtain this Certificate of Distinction. Some examples of the Capstone research papers written include: *“Rural Emergency Departments: Barriers to Trauma Care”*; *“Difficulties Undocumented Immigrants encounter when Seeking Care in the United States”*; *“Health Disparities Issues Affecting Urban American Indians”*; *“The History and Impact of Indian Boarding Schools on Navajo Nutrition and Health”*; *“Homeopathy as Alternative Medicine in Rural Communities”*; *“The Tradition of Running as an Anti-Diabetic, Pro-Health Movement in Hopi Culture”*. These are just six of the 16 excellent papers written by the RHDT students.

Students are encouraged to get involved in the community during their rotations. For example, some of our UA COM-T RHPP students were able to participate in a health fair program in Nogales, Arizona on March 31st, 2017 organized by SEAHEC during which they saw over 80 patients. This was in conjunction with the Mariposa Community Health Center and students from ICAHN Mount Sinai College of Medicine.

### The University of Arizona College of Medicine – Tucson: Rural Health Professions Program Outcomes

Year	Total Graduates <sup>1</sup>	All Grads Entering Primary Care Residency		Total RHPP Graduates	RHPP Grads Entering Primary Care Residency <sup>2</sup>		RHPP Grads Entering Residency in AZ		Activity of RHPP Grads <sup>3</sup>			
		Number	Percent		Number	Percent	Number	Percent	Still Training	Rural AZ Practice	Urban Under-served AZ Practice	Other state
2000	100	56	56%	13	8	62%	8	62%	0	4	3	6
2001	102	55	54%	14	12	86%	8	57%	0	6	3	3
2002	101	62	61%	15	12	80%	9	60%	0	4	3	3
2003	91	46	51%	13	9	69%	8	62%	0	4	2	4
2004	104	60	58%	14	11	79%	7	50%	0	3	5	5
2005	90	50	56%	14	11	79%	11	79%	0	2	4	4
2006	86	51	59%	11	9	82%	3	27%	0	2	3	6
2007	114	56	49%	12	8	67%	5	42%	0	4	5	3
2008	100	51	51%	19	11	58%	10	53%	0	3	4	7
2009	119	61	51%	19	17	89%	8	42%	0	2	1	10
2010	106	63	59%	13	10	77%	8	62%	0	5	3	3
2011	100	50	50%	12	10	83%	5	42%	0	3	1	8
2012	141	80	57%	15	9	60%	5	33%	2	3	2	8
2013	157	79	50%	20	15	75%	8	40%	10	3	3	4
2014	146	90	62%	17	11	65%	8	47%	8	2	2	5
2015	119	52	44%	11	6	55%	6	55%	11			
2016	103	40	39%	18	13	72%	4	22%	18			
2017	98	44	45%	22	14	64%	8	36%	22			
<b>TOTAL</b>	<b>1,977</b>	<b>1,046</b>	<b>53%</b>	<b>272</b>	<b>196</b>	<b>72%</b>	<b>29</b>	<b>47%</b>	<b>71</b>	<b>50</b>	<b>44</b>	<b>79</b>

<sup>1</sup>Graduates include UA College of Medicine – Phoenix 2011 through 2014, due to one RHPP for both colleges during that period.

<sup>2</sup>RHPP specialties for primary care include family medicine, internal medicine, OB/GYN, general surgery and pediatrics.

<sup>3</sup>Residency lengths vary from three to seven years.





Dr. Jocelyn Hirschman

UA COM-T is proud that the many RHPP graduates now work in rural and urban underserved areas of Arizona, which contributes to AzaHEC’s mission to increase and retain the health-care workforce in these communities. In addition, several RHPP graduates also now serve as preceptors, helping prepare today’s medical students for future practice in underserved communities. The college welcomed new preceptors who were RHPP graduates. These young physicians practice in Tuba City, Show Low, Fort Mohave, Bullhead City, Fort Defiance and Safford, Arizona.



Dr. Catherine Romero

This past year in 2016, the RHPP program honored two physicians as outstanding RHPP preceptors: Dr Jocelyn Hirschman, Family Physician of the Hopi Health Center in Polacca, AZ and Dr Catherine Romero, Family Physician of the Gila Valley Clinic in Safford, AZ.

The preliminary report of the UA COM Rural Health Professions Program Outcomes for this year, (see table) demonstrates that RHPP from the UA COM-T has provided approximately 50 physicians to rural Arizona and another approximately 44 physicians are practicing in Arizona’s urban underserved locales.

## The University of Arizona College of Medicine – Phoenix Rural Health Professions Program

**Jonathan Cartsonis, MD**  
RHPP Director

Rural Arizona communities are challenged by poorer, sicker, and less insured communities compared to their urban counterparts. Compounding matters, an insufficient number of rural physicians work in rural communities. The Rural Health Professions Program (RHPP) promotes rural medical practice to UA College of Medicine – Phoenix (COM-P) students through rural training, including rural clerkships, electives, and the Rural Certificate of Distinction (COD) which enhance the eventual recruitment of participating students to rural medical practice. AzaHEC funding enables continued program development including the Rural Health Seminar series; interest group community-building events; career counseling; Scholarly Project support; rural/underserved outreach and site development; rural student housing and transportation support; ultrasound training; and rural student leadership training. The rapid growth of our program has been possible because AzaHEC provides the needed financial resources. This is a long-term investment in talented, young medical trainees.



Jaymus Lee, Third Year Medical Student, during his clinical rotation on the Navajo Nation at Tsehootsooi Medical Center.

Our goals for the coming year include:

1. Completion of curricular and site development for Longitudinal Integrated Clerkship (LIC) and planning the pilot of an 18-week LIC block in AY 18.
2. Ensure positive educational outcomes for sixty-five students completing rural rotations in AY18.
3. Produce 16 Rural Health Seminars offered to all medical students, and required of all Rural COD students.
4. Collaborate with clerkship directors to identify and expand rural clerkship offerings in emergency medicine, family medicine, internal medicine, pediatrics, psychiatry, and surgery.
5. Expand the range of options available for medical student rural electives.
6. Assist in the recruitment of medical students to the College of Medicine who originate from underserved, rural communities and are interested in rural practice.
7. Support and mentor rural Scholarly Project research required of all Rural COD students.

## The University of Arizona College of Pharmacy Rural Health Professions Program

**Elizabeth A. Hall-Lipsy, JD, MPH**  
RHPP Director; Assistant Professor; Program Manager, Health Disparities Initiatives and Community Outreach

The UA College of Pharmacy considers developing the pharmacy workforce to address the access challenges of Arizona’s rural and medically underserved communities a key priority to its mission. Access to health-care services is a top priority and how a state’s health-care workforce is distributed affects access to care, particularly in rural and remote areas. Arizona’s rural community face a considerable challenge in accessing pharmacy care as workforce surveys determined that only 7% of Arizona’s pharmacists practice in rural areas, yet approximately 15% of Arizona’s population lives in rural communities. Accordingly, the college is working to address workforce distribution issues through its RHPP and Professional Certificate in Pharmacy-related Health Disparities, both of which have dramatically affected students’ exposure and decision to practice in rural and underserved communities.

Students selected for the RHPP/Professional Certificate are placed in rural communities during three points in their pharmacy education: (1) the summer between first and second

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year for a four-week introductory community or institutional rotation, (2) the summer between second and third year for a four-week introductory community or institutional rotation, and (3) during fourth year for a six-week advanced pharmacy practice rotation. Over the last eight years, as a result of AzaHEC funding, the RHPP has expanded from recruiting four first-year student participants per year to an average of more than 22 new participants per year. Total RHPP participation represents about 22% of the college's Doctor of Pharmacy (PharmD) student body. In 2016–2017, RHPP funding supported a total of 248 rotations in rural and urban underserved Arizona communities, totaling 53,440 hours of community-based training; 155 of these rotations were completed by RHP Program/Health disparities Certificate students. Among the students in the classes of 2017, 2018, 2019 and 2020 pursuing the Professional Certificate (n=89), 42% are from a rural community; 44% are from an underserved background.

Among the 20 Class of 2017 RHPP Certificate graduates, eight students sought and were selected for competitive post-

graduate pharmacy residency, one of these residencies is at Yuma Regional Medical Center, two are at federally qualified community health centers, one is at Sells Indian Medical Center and one is at Banner University Medical Center, South Campus. This is an impressive placement result (100%) given the overall 68% match rate to residency programs, and over half of the residency programs that selected RHPP graduates this year serve rural or underserved populations. Among the other twelve graduates, three accepted employment at a rural Arizona pharmacy, one accepted employment at the Flagstaff Medical Center, six selected urban Arizona community and hospital pharmacies and two were undecided at the time of data collection. In a survey of these graduates, 100% reported intending to pursue further training and/or seek employment in an underserved community, 85.0% intend to train/work in a rural setting and 95% plan to train/work in Arizona. Employment tracking for all RHPP alumni has revealed that since AzaHEC funding was awarded, 55 students (52%) have obtained post-graduate residency training, 36 (34%) are employed in a rural setting and 50 (47%) are employed treating underserved patients. The college is especially proud to report that 29 RHPP alumni are practicing in rural Arizona, and 12 of our RHPP alumni now act as rural preceptors for current pharmacy students.



### **RHPP Capstone Project College of Pharmacy**

The University of Arizona College of Pharmacy RHPP requires all students to conduct a capstone research project where a student, or team of up to 3 students, identifies a topic and question, prepares a project proposal, collects and analyzes data, and presents a written and oral report to the College; many students prepare journal publications and submit abstracts of their research for professional meeting dissemination.

During 2016–2017 two separate student groups submitted and completed small rural grant research proposals. The first proposal examined the differences in confidence, demographic factors and approaches to pediatric over-the-counter medication dosing recommendations between Arizona rural and urban pharmacists. Rural pharmacists had significantly more years in practice and past parenting experiences compared to non-rural pharmacists. Rural and non-rural pharmacists reported similar experiences with regards to dispensing pediatric prescriptions, recommending pediatric OTC medications, and educating parents/caregivers. A poster describing the work has been accepted for presentation at the American College of Clinical Pharmacy (ACCP) Annual Meeting in Phoenix, October 7–10, 2017.

The second proposal investigated the access to and quality of primary health care for individuals seeking services at a community food kitchen in Flagstaff, Arizona. This project was conducted in collaboration with a RHPP student from the University of Arizona College of Nursing. While both student groups conducted their own project, they assisted in the refinement of a data collection tool and conducted data collection for both projects.

The students presented their research project at the 5th Annual Interprofessional Rural Health Professions Program Conference in April 2017.



*The UA College of Pharmacy supported 9 students in their research endeavors which included poster presentations at the 5th Annual Interprofessional Rural Health Professions Conference.*

To improve student retention and to provide additional structure and support to student participants, the RHPP was enhanced to include a Professional Certificate in Pharmacy-Related Health Disparities in 2010. In 2017, 20 graduating students earned the certificate, joining a total 66 of students who have successfully completed the certificate. In addition to clinical rotations, the certificate requires two classroom-based courses taught by college faculty: Community Assessment for Pharmacy Students and Health Disparities in the United States. Because of the community assessment course, 103 students have conducted community assessments of their RHPP site communities and have presented their findings orally and in written reports.

Currently, the RHPP continues to assist in a collaborative project with the college's Medication Management Center (MMC), the Arizona Department of Health Services, Northern Arizona AHEC, Western Arizona AHEC and 2 rural Arizona pharmacies in San Luis and Flagstaff. RHPP students helped the pharmacies enroll more than 500 diabetic patients to receive free comprehensive medication reviews by the MMC team; and now these students and their supervising pharmacists continue to follow up with at risk patients. All participating patients received quarterly one-on-one counseling sessions and regular follow-up consultations, conducted in cooperation with their local clinic and pharmacy staff. Program outcomes were presented by an interdisciplinary team of researchers at the 2nd Annual El Rio Health/Wright Center Virtual Research Fair where the two posters presented won first and second places for overall presentation.

Additionally, AzaAHEC funding is supporting interprofessional activities and student research projects in rural and underserved areas. COP-RHPP students participated in a 2-day interprofessional RHPP service-learning activity conducted in collaboration with NAHEC and North Country Healthcare in February. Thirteen health professions students, 4 medical, 2 nursing, 7 pharmacy, from the University of Arizona, NAU, AT Still, and Midwestern participated in health screenings and patient education at a local food kitchen. Screenings included blood pressure, blood glucose, BMI/obesity, and foot exams. The students presented their research at the poster session during the Fifth Annual Interprofessional Rural Health Professions Program Conference on April 13th and 14th 2017.

## **The University of Arizona College of Nursing Rural Health Professions Program**

**Christy Pacheco, DNP, FNP-BC**  
*RHPP Director*  
*Clinical Assistant Professor*

There are persistent health disparities in Arizona, with access to care a key issue, particularly among rural and medically underserved populations. Every county throughout Arizona is

experiencing a shortage of primary care providers across both rural and urban areas, and include federally designated HPSAs and MUAs. Nurse Practitioners are in a unique position to provide primary care services with a focus on prevention and community and population health. Consistent with the mission of the AzaAHEC program, the University of Arizona College of Nursing Rural Health Professions Program (UA CON RHPP) aims to improve the development and recruitment of an interprofessional healthcare workforce to practice in rural and medically underserved areas across Arizona. During fiscal year 2016-17, a range of didactic and clinical support provided to CON Doctoral Nurse Practitioner students to develop expertise in working with these communities. CON RHPP Scholars complete clinical and didactic requirements, including rural rotation hours, coursework, activities and a rural focused doctoral project to receive a certificate of completion. Additional work continues with the collaboration of RHPP Directors, Regional AHEC Directors, AzaAHEC, and others in the development of an interprofessional track, the AHEC Scholars Program, with additional interprofessional clinical education and didactic requirements; implementation expected in 2018.

The CON Rural Health Professions Program continues to grow. During 2016-17, there were 53 CON Doctoral Nurse Practitioner student Scholars in the UA CON Rural Health Professions Program, including 14 new RHPP Scholars admitted to the program.

### ***Clinical Education***

Sixty Doctoral Nurse Practitioner students rotated through 111 rural or medically underserved clinical sites. This included 19,727 rural or medically underserved clinical encounters, 10,069 conducted in rural areas. Clinical Supervision provided to Doctoral Nurse Practitioner students in their rural and medically underserved rotations, including the use of HIPAA compliant videoconferencing for remote site evaluation. RHPP Scholars also received clinical decision-making support tools during their Arizona rotations, including iPads, clinical apps, and stipend support.

Site development activities continued, including successful addition of new sites or development of formal interprofessional clinical education in collaboration with NAHEC, SEAHEC, the Rural Health Office, CON, and specific sites, including Tuba City (TCRHCC), North Country Community Health Center, Poore Free Medical Clinic (Flagstaff), Benson Hospital, Chiricahua, and Mariposa. Fall semester marked the first CON RHPP clinical rotation at Tuba City on the Navajo Reservation, completed by an RHPP Scholar and Family Nurse Practitioner student who was able to stay at AHEC housing in order to successfully complete this rotation.

A formal interprofessional clinical education curriculum map was developed in collaboration with North Country

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Community Health Center (NCHC) and NAHEC for health professions students rotating at North Country and other Northern Arizona clinical sites that may be used as a template for sites across Arizona. This included a range of activities, including development and implementation of a new interprofessional service learning activity, a community health fair. In collaboration with North Country/NAHEC, a local soup kitchen and county health department, a two-day health fair was conducted in February. This provided an opportunity for health professions students to provide needed health education and screenings to rural and medically underserved community members, as well as develop a greater appreciation and understanding of how social determinants impact health status and access to care. Thirteen health professions students, including four medical, two nursing, and seven pharmacy students participated in health screenings, education, and a formal IRB-approved needs assessment at a local food center. Three faculty and two community clinicians also participated. Screenings included blood pressure, blood glucose, BMI/obesity and foot exams, conducted by small interprofessional groups of health professions students. Students noted an increased awareness of interprofessional roles and greater understanding of social determinants of health, including an appreciation of patient perspectives and realities.

### *Didactic Activities*

In addition to clinical coursework, Doctoral Nurse Practitioner students had the opportunity to complete rural focused didactic courses and seminars. Rural courses were open to all graduate students, across all the colleges, e.g. College of Medicine, Pharmacy, and Public Health, and included a focus on conceptual considerations for providing rural healthcare, rural health status, health behaviors and disparities, and rural health systems, such as Critical Access Hospitals, payors, and workforce recruitment and retention. Independent studies focused on advising and chairing students to complete Doctoral projects with a particular focus on improving care for rural and medically underserved populations. Numerous Doctoral Nurse Practitioner students and RHPP



*Interprofessional RHPP Community Health Fair, February 2017. Medical, Nurse Practitioner, and Pharmacy students joined community clinicians in providing health screenings and education at a Northern Arizona soup kitchen.*

Scholars completed independent studies, focusing on projects to improve the health status, outcomes, and/or access to care for rural and medically underserved populations. Based on this work, two RHPP Scholars presented on topics related to rural and medically underserved populations at statewide and nationally conferences, including a poster presentation at the Western Institute of Nursing national conference and a Lightning Round Poster Presentation at the 43rd Annual Arizona Rural Health Conference & 11th Annual P.I. Summit Annual Rural Health Conference. Doctoral projects included two interprofessional RHPP projects, including QI for evaluating best practices for chronic pain management in primary care in Arizona, and evaluating access to care among vulnerable populations in Northern Arizona.

### *Interprofessional RHPP Conference*

Students, faculty, and community members participated in the AzAHEC 5th Annual Interprofessional Rural Health Professions Conference. Twelve UA CON students registered for the conference, including seven RHPP Scholars. Students received guidance in developing posters focusing on health topics of interest to rural and/or medically underserved populations. Five students presented posters, including three Scholars.



*RHPP and DNP Students Dorothy Igwe and Georgina Amaya were two poster presenters at the Fifth Annual RHPP Conference. They are shown here with Dr. Roberto Dansie, who provided a keynote address at the conference.*

### *Outcomes*

The UA CON RHPP has successfully impacted recruitment for rural and medically underserved sites across Arizona. Of the 10 RHPP Scholars who graduated during this period, including two dual specialty FNP-PsychMH Nurse Practitioners, three are working in rural areas, and two in urban underserved areas; four Scholars are in the process of completing national boards and licensing post-graduation and had not yet begun working. Graduates all strongly agreed that CON RHPP coursework and clinical rotations each improved their knowledge in caring for rural and/or medically underserved populations.

The UA CON Rural Health Professions Program serves to provide critical clinical and didactic support to Doctoral Nurse Practitioner students interested in caring for rural and medically underserved populations and RHPP Scholars. Expertise they are developing in interprofessional primary care for these populations' aims to improve access to care and health outcomes. This would not be possible without the extensive collaboration that continues to occur among RHPP Directors and Regional AHEC Directors across the state, AzAHEC, CON, and our community partners.

## **Arizona State University College of Nursing & Health Innovation Rural Health Professions Program**

**Diane E. Nuñez, DNP, RN, ANP-BC, FNAP**

*RHPP Director*

*Clinical Associate Professor*

*Clinical Coordinator, Adult Health*

The ASU College of Nursing & Health Innovation Rural Health Professions Program (RHPP) aims to provide clinical opportunities for primary care Doctor of Nursing Practice (DNP) students to work in rural and urban medically underserved areas throughout the state, while fostering interprofessional educational opportunities that stimulate and cultivate students' interest in careers in underserved settings. This contributes to the AzaAHEC mission to develop a culturally-competent, diverse health-care workforce to help reduce health disparities and improve health outcomes for vulnerable Arizona populations. DNP students are selected as RHPP fellows based on an essay statement and interview, leadership and community involvement, scholarship activities and potential to seek employment in AzaAHEC focus areas upon graduation. Participants' nursing disciplines include family nursing, adult/geriatric nursing, pediatrics and family psychiatric mental health. A clinical and an academic mentor guide RHPP fellows during the program to foster positive clinical experiences and encourage fellows to remain in an AzaAHEC service area upon graduation.

Clinical experiences for most students include long-term rotations across two to four semesters in medically underserved communities (MUC) which foster deeper community engagement and long-term patient care continuity. These long-term rotations were part of a pilot advanced practice nurse residency program that began in summer 2015 and has been successful in both recruitment and retention of the students in RHPP sites not only for direct patient care, but also for process improvement projects as part of their third year doctoral work.

In 2016–2017, Arizona State University RHPP supported students assigned to rural community health care clinics, rural private practice, Federally Qualified Community Health Centers (FQHC), and Health Professions Shortage Areas (HPSA) across three of five AHEC regions, totaling six thousand six hundred seventy-three (6,673) hours of community-based training. Thirty-one (31) unique students were placed in rural or medically underserved communities (MUC), for a total of forty-two (42) rotations and eleven (11) students had longitudinal clinical rotations in sites that hosted them in a previous semester of training. Students included three (3) Adult/Geriatric Nurse Practitioner students (A/GNP), nineteen (19) Family Nurse Practitioner students, twelve (12) Family Psychiatric Mental Health Nurse Practitioner students (PMHNP), five (5) Pediatric

Nurse Practitioner students (PNP), and one (1) Women's Health NP student (WHNP). Twenty-one (21) students are bilingual. Of the students (n=38) who completed these rotations, 53.4% are from a rural area, 52.8% come from a disadvantaged background, 45.3% are from underrepresented ethnic/racial groups, and 30.2% are native of Arizona. Seventeen (17) RHPP students graduated in spring 2018, and 100% intend to pursue employment and/or further training in primary care/primary mental health care, 41.7% intend to practice in a medically underserved community in Arizona and, 52.9% of these graduates intend to work/train in a rural area.

The ASU College of Nursing & Health Innovation Center for the Advancement of Interprofessional Practice, Education and Research (CAIPER) provided e-learning modules, interprofessional simulation, and events supported by the Josiah Macy Jr. Foundation as part of the Interprofessional Primary Care Project (The Macy Project) and RHPP students were invited to participate in both e-learning modules and interprofessional student seminars held every other month regarding preparing for Interprofessional Practice in primary care settings. A subset of RHPP students participated in interprofessional direct clinical practice experiences in medically underserved communities in central Phoenix. Both the Wesley Clinic, and the Student Health Outreach for Wellness (SHOW) clinic offered interprofessional student rotations for RHPP students. The project team designs the clinical experience to include not only placement in these designated areas, but also with an emphasis on mentorship. Students are paired with two mentors; one clinical professional and one academic faculty. Each mentorship experience in a service area varied depending on the type of site (private practice vs. FQHC), population served, and resource limitations experienced. The goal is to foster positive experiences through the clinical experience, and mentorship which will further encourage the fellow to remain in one of the AHEC areas upon graduation.

The college faculty and RHPP program director fostered networking, outreach, community service, and education opportunities for RHPP/AHEC program students to participate as fellows with other concurrent scholar/fellow opportunities offered in the college. The aim of this approach is to assist the students to develop knowledge and expertise in the unique challenges of working in rural and medically underserved communities (MUC), along with the relevant health and access issues these populations face. Students are encouraged to take relevant coursework including DNP690 Healthy Equity and Social Justice, as one of their program electives. This collaboration offers opportunities for scholarship and support for clinical experiences in the identified rural or MUC's.

As part of the CAIPER Integrated Interprofessional Primary Care Curriculum, RHPP students engaged in the following e-learning modules:



## Arizona State University Student post-rotation testimonials and graduation plans:

*My post-graduation plan is to work in Northern Arizona region where Native Americans reside. Employed as a nurse for 1 year and 8 months in Ganado, Arizona, which is located within the Navajo reservation. With this, I have seen how these population lack primary mental health programs. In addition, it will be my privilege to work with underserved populations in rural areas.* – Troy Riutta RHPP student, Family Psychiatric Mental Health

*My Plans post-graduation are to work as an adult geriatric NP in a primary care setting for underserved populations. I am from a small town originally of less than 10,000 people. I would love the opportunity to serve as a NP in a rural setting similar to what I experienced growing up and to provide these rural settings with the practitioner services they need and deserve.* – Chelsea Cason, RHPP student, Adult-Geriatric

- ▶ What is Interprofessional Education?
- ▶ Interprofessional Communication.
- ▶ Involving Team Members in Primary Care Practice.
- ▶ Developing an Integrated Plan of Care.

In addition, RHPP students were invited to interprofessional student seminars held every other month and included discussion on the following topics:

- ▶ Preparing for Interprofessional Practice: Trauma Informed Integrated Care
- ▶ Preparing for Interprofessional Policy Practice: How Health Professionals Can Influence Health Policy
- ▶ Preparing for Interprofessional Practice: Meeting the Primary Care Needs of Arizona's Multi-Ethnic Refugee Communities
- ▶ Preparing for Interprofessional Practice: Addressing Substance Use Disorders in the Primary Care Setting

Student participation in the 5th Annual Interprofessional Rural Health Professions Conference included 17 participants and 2 poster presentations. Students report enjoying the interprofessional breakout sessions, panel participation, opportunities to network and engage with their respective AHEC program directors, as well as sharing clinical experiences and project work with students from other disciplines and areas throughout the state. All students were provided with AHEC director contact information at the start of the rotation and encouraged to connect with the agency in community outreach and education. The students had an online forum to network with peers from ASU (through their Blackboard organizational site) where events, support, and resources were shared. Mentorship was provided for clinical faculty from the project director to assist in clinical placements, navigating challenges, and resource utilization that faculty could pass on to preceptors.

### **Northern Arizona University School of Nursing Family Nurse Practitioner Program Rural Health Professions Program**

**Douglas Sutton, EdD, MSN, MPA, APRN, ANP-C**  
RHPP Director; Associate Professor

The NAU SON Family Nurse Practitioner Program continues to admit, train, graduate and place primary care providers in rural

and medically underserved communities. During this reporting period 62% of the NAU 2016 graduates, report employment in rural, urban medically underserved, or primary care provider health-care shortage areas across the state of Arizona. The goals and objectives of the RHPP program remain congruent with University, College and School of Nursing objectives, and students report a satisfactory or high level of satisfaction with their training and clinical placements. During this program year, NAU partnered with Northern Arizona AHEC and North Country Health Care (NCHC) to trial a 100% rural placement mentoring cohort model that graduates and the Northern Arizona AHEC and NCHC staff reported the highest degree of satisfaction (98%) than any previous NAU SON graduating FNP student cohort. Factors contributing to this satisfaction included the formal preceptor rural mentoring experience, inclusion in the Interprofessional Education Experiences facilitated by NCHC, and the higher student financial support through RHPP funding that assisted students to travel across northern Arizona and fully participate in their clinical training experiences.

As a direct result of funding initiatives, and support through Federal, State, Local and University resources the FNP program at NAU has experienced unprecedented growth, and over the past several years has increased enrollments. While the exponential growth of the program and the high degree of satisfaction and job placements indicate that these initiatives have proven successful, it has also placed strains on an already overburdened clinical placement process that must compete with our fellow ABOR Universities to locate and develop relationships with qualified preceptors. As a result, NAU SON capped enrollment to ensure a high-quality theory and clinical learning experience for each enrolled FNP student. However, because of this enrollment change, the number of qualified applicants to the program who were not granted admission increased by nearly 25%.

During AY 2016-17 NAU SON, through the coordinated support of our ABOR partner universities, and clinical agencies such as the regional AHEC offices across the state of Arizona and North Country Health Care, implemented a rural population focused interprofessional education and care (IPEC) model. Working with our academic partners, NAU SON FNP graduates reported multiple IPEC learning experiences with the University of Arizona Colleges of Medicine (Tucson & Phoenix), Nursing, Pharmacy and Public Health, as well as with the Arizona State University College of Nursing and Healthcare Innovation, and the A.T. Still

College of Osteopathic Medicine. In April of 2017, many RHPP supported students participated in the Annual IPE Conference sponsored by the Arizona AHEC in Tucson, or via distance technology.

Enrollment in the FNP Program now exceeds available RHPP funding to support ongoing education and clinical experiences for 100% of FNP students. Beginning in AY 2016-17, NAU implemented an RHPP selection process by identifying those students who desire to be a part of the RHPP training and IPEC experiences and implemented a priority matrix to offer those students rural, medically underserved and primary health-care provider shortage clinical placements over non-RHPP participating students. However, 100% of the NAU SON May 2017 graduates each had some degree of rural health-care IPEC experiences, which is consistent with the Northern Arizona University and the School of Nursing commitment to serve the health-care needs of our rural and disadvantaged communities across our state.

During AY 2016-17 the RHPP Program Director established a goal to emphasize IPEC and team-building collaboration skills for students engaged in rural clinical practice. This qualitative case study's purpose was to determine how face-to-face, clinically based experiences could influence theoretical or classroom-based IPEC preparation. The goal was to identify student-centric factors related to actual rural clinical practice and design educationally congruent mitigating interventions to foster enhanced IPEC training. RHPP students assigned to rural clinical placements and completed 80% or more of their total clinical hours in these sites were asked to keep weekly clinical journals and to summarize their experiences at the conclusion of each of their three semesters of clinical rotations. Using a qualitative debriefing model, the program director sought to identify common themes reported by the students who participated in this case study. The following five themes were identified and agreed upon by the students who participated in this case study experience:

- ▶ Caring for complex health-care conditions with limited diagnostic and clinical referral resources
- ▶ The multifaceted scope of responsibility of the family nurse practitioner in rural primary care settings
- ▶ The immersive experience of attempting to mitigate factors relate to rural health care disparities
- ▶ Preceptor support and student initiative
- ▶ Barriers to success including professional “turf wars” and student discomfort in IPEC experiences as a FNP student.

As a result of these identified themes the NAU RHPP Program Director, working in concert with the NAU FNP Program Coordinator and clinical placement coordinator, will offer additional education and simulated learning experiences to enhance student awareness of these factors. They will develop and design instructional scenarios to assist the student in overcoming barriers related to rural professional practice and collaboration, interprofessional communication, and interprofessional teamwork.

The regional AHEC Centers, particularly the Northern and Western AHEC Centers, served as the primary referral centers for the NAU SON FNP RHPPP students. However, NAU had students who participated in each of the AHEC regions across the state and utilized referrals and clinical placement data information. The NAU SON recognizes the impact of our partnership with the Arizona AHEC, the RHPP Training Program, and the ability to support IPE across disciplines who provide care to rural and medically underserved areas across Arizona. The NAU Flagstaff campus is more geographically isolated than our other ABOR institutions, and thus with the support of the Arizona AHEC and the RHPP funding, NAU will explore the use of technology as a bridge to overcome this geographical barrier to rural advanced practice nursing education.

## **The University of Arizona Mel and Enid Zuckerman College of Public Health Rural Health Professions Program**

**Jill Guernsey de Zapien**

*RHPP Director*

*Associate Dean, Community Programs*

Another year has flown by and our Rural Health Professions Program at the College of Public Health continues to offer vibrant and transformational experiences in understanding and developing action to strengthen health equity in our rural and underserved communities throughout Arizona. The five service learning courses and our border binational interprofessional activity is what our program is built on. Courses are open to MPH and doctoral students enrolled in the College. The interprofessional activity is open to students from all four of our Colleges at UAHS.

The local AHEC center in the region implements each course with an experience in a strong partnership and has specific additional partners depending on the theme of the course. In some cases, AHEC is the overall sponsor of the students in the area with close collaboration in developing many of the specific community activities including: spending time with high school students in the AHEC high school career clubs, arranging food and lodging, developing specific program activities with community partners, etc. In other cases, the AHEC staff may serve as adjunct faculty and co-instructors in the course and in some instances serve as one of the main collaborators for the cultural competency area, which is a critical component of the service learning courses.

Our program is about community partnerships and each course or activity has a unique set of long-term partners. In Phoenix, (CPH 597F), several of the major partners last year included *Maricopa County Health Care for the Homeless Campus*,

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## UA Zuckerman College of Public Health RHPP

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*St. Mary's Food Bank* and a faith based organization, and *Orangewood Church* serving as a hub for community driven activities to strengthen the assets in the community based on a comprehensive needs assessment. *St. Mary's Food Bank* provides a model program of meeting access to healthy foods, providing food services training and building small business models for catering healthy foods. *Maricopa County Health Department's* response to the homeless crisis in our nation serves as a model for our students as a comprehensive approach to ending homelessness. Students experience the reality of issues for underserved populations within the highly urbanized metropolitan area of Phoenix.

In the border region, **(CPH 597C)**, our College has over thirty years of partnerships with community organizations and our border course is built on these extensive partnerships. Implemented for the past three years, the course has been in the *Douglas/Agua Prieta* region. Last year we collaborated closely with *Cochise County Health and Human Services* providing a unique example of the assets and issues of a public health department in the border region. *Frontera de Cristo*, a local nongovernmental organization in Douglas and Agua Prieta is an outstanding model of numerous initiatives to strengthen local economic development. *Chiracahua Community Health Center* and the *Secretaria de Salud in Sonora* round out the overall picture of access to care and quality of care in rural and underserved areas.

Our interprofessional border experience is solidly grounded with community partners in *Nogales, Arizona*. The three-day activity last year focused on understanding disability issues within the lens and framework of rural, border and underserved communities. Interprofessional and binational student and faculty teams provided direct service to numerous community organizations. *Santa Fe Ranch* partners with our students to increase accessibility to rural ranching activities and *Santa Cruz Training Center* collaborates to increase accessibility to greenhouses and develop educational materials for the community.

In the agricultural and mining area of the *Thatcher/Safford* region our service learning course, **(CPH597D)**, for the past three years has partnered with many different community organizations to increase the understanding of access to care, environmental health issues related to agriculture and mining, and building strong community networks. *The University of Arizona Cooperative Extension* works closely with the rural health service learning course to introduce the students to water issues and farming related to rural agriculture. *Our Neighbors Farm and Pantry* is a model of a community garden with strong support for a variety of health and human services in the community. The *Graham County Health Department* is a key

partner and serves as the umbrella organization, connecting students with the vibrant network of organizations throughout the region that contribute to building healthy communities. There also has been a long-standing partnership with *South Eastern Arizona Community Unique Services, SEACUS*, as they collaborate to meet the needs of the elderly in a rural setting. In Northern Arizona, **(CPH 597B)**, this past year the course offered a one-week field-based experience designed to expose students to public health programs and life ways in rural areas. The focus is on programs serving families and children, with a specific emphasis on Native American reservation based communities in the Southwest. Students were engaged in a wide range of learning and service experiences. They visited an active Indian Boarding School, worked in a community garden and learned about processing traditional foods in a *White Mt. Apache* community. They worked in a school garden, hosted a storefront health fair and helped with a *Diabetes Prevention* program fun run in *Hopi* communities. On the *Navajo Reservation*, they learned about team work helping a Navajo family butcher a sheep, a traditional food source; shadowed Navajo community health representatives on home visits to understand the limited resources available to home bound elders and the diverse skills of bi-lingual lay practitioners; provided health food demonstrations in a supermarket in a Navajo community; and met with Navajo leaders, educators and practitioners to learn about current health policies and services. Throughout the week students were guided by an Indigenous Social Determinants of Health framework and worked in small groups to reflect on the impact of Kinship, Culture, Food Sovereignty and Health Systems on rural, Native American health.

The Tucson based service course, **(CPH 597A)**, continues to serve as a wakeup call to our students as they begin to see the community they are living and working in through the lens of public health and health equity. We partnered with the *Pima County Health Department* with a focus on issues related to access to care and health literacy; *Clinica Amistad* on issues of the uninsured; *Primavera Foundation* with their "pathways out of poverty program" focusing on the social determinants of health; and the *Refugee Primary Care Workgroup* serving the growing Tucson refugee population. These partnerships offer a firsthand opportunity for our students to provide services and gain a deeper understanding of poverty and structural barriers to improving the health of the community in which they are living.

In the 2016-2017 program year, 74 students participated in our RHPP program. Half of the students were either the first in the family to attend college, had receive a scholarship or loan for disadvantaged, students, had participated in state or federal assistance programs, or grew up in a rural area. Ninety three percent of the students intend to be employed or pursue further training in an underserved area.

In closing, we continue to see our Rural Health Professions Program as a pillar of our institutional commitment to health equity. The program provides an intense, total immersion



experience for our students to understand both the assets and the struggles of our rural communities, our American Indian communities, our border communities and our urban underserved populations. It creates those moments in time and space that strongly impact student career choices and truly meet the overall objective of increasing public health practitioners in underserved communities. We look forward to continued collaboration with the Arizona AHEC Program and all of the Arizona AHEC Centers.

## **Fifth Annual Interprofessional Rural Health Professions Conference**

The Fifth Annual Interprofessional Rural Health Professions Conference was held on Thursday, April 13, 2017 – Friday, April 14, 2017 at UAHS with more than 100 participants, including health-care professionals from the community and students, faculty and staff from the UA, ASU and NAU. The conference included in-person as well as technology-enabled participation. In particular, this conference provided opportunities for RHPP students to network and discuss their rural health experiences. Participation included RHPP students from ASU College of Nursing & Health Innovation, NAU School of Nursing and the UA Colleges of Nursing, Pharmacy and Zuckerman College of Public Health.

The conference began on Thursday, April 13 with a panel discussion “Environmental Health Topics in Health Disparities Populations”. Moderated by Dr. Carlos Gonzales from the College of Medicine-Tucson, panelists included Dr. Paloma Beamer, College of Public Health and Dr. Marti Lindsey, College of Pharmacy. Other panelists included Dr. Roberto Dansie and Mr. Joe Simmons, who also made keynote presentations on the second day of the conference discussed below.



*Dr. Roberto Dansie provided the morning's keynote address.*

The second day of the conference featured a morning keynote presentation by Roberto Dansie, PhD, who shared insights on cultural wisdom, rural health and interprofessional practice. As a Maya and ancient wisdom scholar, Dr. Dansie, a clinical psychologist and a member of the Toltec tribe of Mexico, is internationally recognized as a contemporary authority on cultural wisdom. In the afternoon, Joe Simmons, Executive Director, from the Chadron Native American Center, Chadron, Nebraska, presented a second keynote presentation entitled “Through My Eyes”, which highlighted his professional and personal path. Conference participants completed small-group, interprofessional workshop activities on cultural self-awareness and culturally-competent care. Faculty and other health professionals facilitated the small groups.

The conference included several poster sessions from students and researchers at the Arizona Center for Rural Health; ASU College of Nursing & Health Innovation; NAU and North Country School of Nursing; the UA Colleges of Nursing, Pharmacy and Zuckerman College of Public Health; SEAHEC, Universidad del Valle



*RHPP Director College of Medicine – Phoenix Dr. Jonathan Cartsonis presented a research poster co-authored by COM-Phoenix students*

de Mexico, Universidad Kino; Mariposa Community Health Center; UA Health Sciences and Loma Linda University School of Dentistry; and the UA College of Medicine – Tucson Office of Diversity and Inclusion.



*Mr. Joe Simmons provided the afternoon's keynote address*

learning experiences, self-regulation skills for adults with Metabolic Syndrome, rural nurse practitioners' knowledge of depression management, and practice-based research to implement a chronic-care model for patients with gestational diabetes. The posters can be viewed from the conference website: <http://azahec.uahs.arizona.edu/content/2017-rhpp-poster-session>

Example poster topics included community health assessments in rural Arizona, Practitioners' Perception of Implementing the Pediatric Early Warning System (PEWS) in Primary Care, gun violence prevention in rural health and vulnerable populations, Interprofessional service

## **AzAHEC-Supported Interprofessional Education Program**

### **The University of Arizona Health Sciences Core Interprofessional Education Events**

Interprofessional Education (IPE) events engage students in medicine, nursing, pharmacy and public health in opportunities to learn and practice in interprofessional, collaborative, team-based environments and provide safe, quality, patient-centered care. In 2016–2017, four interprofessional training exercises brought together participants from the UA Colleges of Medicine,

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## UAHS Core Interprofessional Education Events

*Continued from page 17*

Nursing, Pharmacy and Zuckerman College of Public Health as well as from other disciplines and universities. These exercises blended online learning with in-person, team-learning experiences to encourage collaboration and communication across disciplines and professions. At each exercise, students collaborated in interprofessional teams and interacted with interprofessional facilitators from both academia and professional practice.

In summer 2016, the first of the four exercises, *Interprofessionalism for Patient Safety*, included 412 health professions students in the UA Colleges of Medicine – Tucson, Nursing and Pharmacy and focused on how collaborative team behaviors promote positive patient outcomes. Students learned about shared and complementary scopes of practice and how to be constructive team members. In October 2016, the *Pandemic Exercise in Disaster Preparedness* integrated video conferencing technologies between the UA Tucson and Phoenix campuses. Participation included more than 437 students from the ASU School of Social Work and the UA Colleges of Medicine – Tucson, Nursing, UA College of Law, Pharmacy, and Zuckerman College of Public Health. Students took part in an interprofessional simulated pandemic emergency that provides exposure to issues that arise in a pandemic, introduces the concept of all-hazards preparedness, addresses the roles and responsibilities of different professionals, underscores the importance of coordination and teamwork in preventing and controlling the spread of disease, a Mass Care Activity – prioritizing patients in need, and Limited Resources Activity – deciding patient treatment policies.

In spring 2017, students had the opportunity to participate in *Disabilities: An Interprofessional Exercise* introducing students to important topics in the lives of people with disabilities. The exercise teaches students the roles and functions of the members of an interprofessional team in the delivery of patient-centered care for persons with disabilities. More than 490 students from the UA Colleges of Medicine – Tucson, Nursing, Public Health and Pharmacy; the ASU School of Social Work and the Northern Arizona



*Interprofessional Event, September 8, 2016*

Occupational Therapy, and UA Speech, Language & Hearing Services and Nutritional Sciences were assigned to interprofessional teams of six members. Teams participated in panel discussions with guest panelists with personal experiences of disabilities, and watched videos of patient experiences. This exercise focused on team skills and effective communication.

The final event for the academic year, *Interprofessional Team Behavior Simulation*, involved 410 students in the disciplines of medicine; nursing; pharmacy; at the UA College of Medicine-Tucson; UA College of Nursing – Tucson and Phoenix; and College of Pharmacy – Tucson and Phoenix. Through a situational learning exercise, vital team skills such as closed-loop communication, constructive intervention, knowledge sharing, reevaluation and summarizing, and mutual respect were developed. The simulation provides students with the opportunity to work with other health professions and respond to a code, thereby learning effective communication for the ultimate benefit of patients.

## **National CLARION Interprofessional Case Competition**

### **UA Students Win 1<sup>st</sup> in National CLARION Interprofessional Case Competition**

The University of Arizona marked its second year at the national CLARION Interprofessional case competition by winning the national title! This year's competition hosted 14 teams from top universities across the nation. In late February, the University of Arizona hosted a regional competition to determine who would represent the university at the national competition. The winning UAHS team travelled to Minneapolis, MN for the national CLARION competition on April 7 – 8, 2017.

A specific interprofessional case study is designed each year to challenge teams in solving particular problems. This year's case study focused on childhood obesity in a rural area. The scenario resounded strongly with the Arizona team. The UA students met as strangers, after being randomly assigned, and became teammates to each other to create a root-cause analysis to solve the problem.

Terri Warholak, PhD, RPh, Associate Professor in the UA College of Pharmacy, and Mary Marian, DCN, RDN, CSO, FAND, Assistant Professor and Program Director in the UA College of Agriculture and Life Sciences advised and mentored this championship team. Each faculty mentor provided excellent guidance and worked diligently to impart interprofessional wisdom to their team.

The UA Center for Transformative Interprofessional Healthcare is grateful to the panel of interprofessional judges who volunteered their time, and provided invaluable feedback to the competitors. They were impressed with the student presentations and evaluated the students on real world standards of practice.



Regional judges included:

Dr. Theodore Tong, Associate Dean, UA College of Pharmacy

Dr. LeAnne Denny, IPE Program Director, UA College of Medicine, Phoenix

Dr. Brett Behan, Associate Chief Nursing Officer, Banner Healthcare

## BACKGROUND

The CLARION competition is a student-driven initiative at the University of Minnesota; which focuses on the professional development of health science students and includes lessons in leadership, teamwork, communication, analytical reasoning, conflict-resolution, and business practices. The University of Minnesota health has held this elite national interprofessional case competition since 2005.

Participation in CLARION leads students to a more sophisticated understanding of the health-care system in which they will practice. Interprofessional teams of four students are composed of at least two different professions, and no more than two students may be from the same profession. The teams present a root cause analysis of a fictitious sentinel event to a panel of senior-level interprofessional health executives. Mentors provide guidance and technical support after the cases are analyzed by the team members. The cases are fictitious with real-world challenges relating patient safety to health-care systems and how it might be improved. The highly complex

## UAHS Local CLARION Interprofessional Case Competition Results

**National Winners**

- ▶ 1<sup>st</sup> place: University of Arizona
- ▶ 2<sup>nd</sup> place: Army Baylor
- ▶ 3<sup>rd</sup> place: University of Minnesota

**First Place**

- ▶ Elizabeth Reardon, UA Zuckerman College of Public Health
- ▶ Alicia Walker, UA College of Nursing
- ▶ Brenda Velarde, UA College of Agriculture and Life Sciences

**Second Place**

- ▶ Eric Brucks, UA College of Medicine – Tucson
- ▶ Madison Egan, UA College of Agriculture and Life Sciences
- ▶ Leyla Eskenazi-Figuerola, UA College of Nursing
- ▶ Colleen Green, UA College of Nursing

cases incorporate triple aim issues.

Through this competition, each team member was reminded of the importance of interprofessional collaboration to improving health-care and patient safety in a complex health-care environment. Furthermore, the positive experience as an interprofessional team demonstrated that communication and problem solving across professions is possible and necessary.

## AzAHEC-Supported Academic Programs

### *The University of Arizona College of Medicine Rural Health Professions South Campus*



**Jerry Koleski, MD**  
*Assistant Professor  
Rural Health Coordinator*

The Family Medicine and Internal Medicine of Banner University Medical Center Tucson South Campus residencies mandate a portion of their training occur in rural Arizona to produce physicians to serve the medical needs of rural Arizonans.

The residents live, work and enjoy their time off in the rural communities where they work, for the length of their rotations. They experience the day-to-day life of rural physicians in the communities they serve.



## Graduate Medical Education

(GME) or residency education, is a period of didactic and clinical education in a medical specialty that physicians undergo after they graduate from medical school. Most residency programs last from three to seven years, and during this time residents provide patient care under the supervision of physician faculty. Upon completion of a residency program, a physician is eligible to take board certification examinations and practice independently. Residency programs are sponsored by teaching hospitals, academic medical centers, health-care systems and other institutions.

Twenty Internal Medicine residents do two-week rotations in Green Valley and Payson, Arizona. In the coming year, Internal Medicine residents will also begin rotations at Banner Casa Grande Health Center in Casa Grande, Arizona. Green Valley and Casa Grande are small cities about 30 to 60 minutes from Tucson. Payson is located three hours north of Tucson in the middle of the Tonto National Forest.

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## UA College of Medicine RHP South Campus

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Eight Family Residents spend one month doing rural Family Medicine rotation in their first year of training. Eight more second year residents do four-week rotations in rural Family Medicine, rural Emergency Medicine, and rural Obstetrics. The residents are able to perform their rural rotations from among Nogales, Payson, Polacca, Safford, Show Low, Tuba City and Whiteriver, Arizona. Polacca is the main Indian Health Service Hospital for the Hopi reservation, Tuba City is the largest hospital on the western Navajo nation, and Whiteriver is the hospital for the Whiteriver Apache Reservation. Nogales, Payson, Safford and Show Low are community hospitals in eastern and southeastern Arizona.

Does the program achieve its goals? Of the ten residents who graduated in the last year, six are working in Arizona, five are working with the underserved and four of those are working with underserved Arizonans. The money spent by AzaAHEC does in fact result in more physicians working with the medically underserved in Arizona.

AzaAHEC funding allows our rural supervising physicians to receive ongoing faculty development support within the rural community practice sites. The additional training for the rural preceptors and the courses prior to training in rural Arizona help make the rural rotations among the most popular rotations the residents do in their three years of Graduate Medical Education at the University of Arizona South Campus.

Arizona AHEC funds also pay for training that makes the residents ready to practice in lower resource settings of rural Arizona. The courses taught by AzaAHEC are: Advanced Trauma Life Support (ATLS), Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), Neonatal Resuscitation Program (NRP) and an Introduction to AzaAHEC funding also supports courses to prepare residents for rural practice environments, including Advanced Trauma Life Support (ATLS), Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), Neonatal Resuscitation Program (NRP) and Introduction to Medical Spanish.

Our residents speak very highly of the education they receive in the AHEC sites. These are a few comments from them:

*Rural rotations are an excellent learning experience because you are often one on one with an attending and you get to know the members of a small community.*

– Todd Horstman, MD, PGY-3, Family Medicine

*The Green Valley rotation was a good outpatient experience serving a rural and elderly population. Good experience.*

– Norman Beatty, MD, recent graduate,  
Internal Medicine

*This was a great opportunity for not just residents but also medical students to be involved in full spectrum family medicine. It was also a great opportunity to be part of a team of physicians that truly seek the best outcomes of their patients with a focus on excellent continuity care and preventative medicine.*

– Chadi Berjauoi, MD PGY-2, Family Medicine

The Graduate Medical Office of Banner University Medical Center of Tucson South Campus want to express its gratitude to the Executive Branch of the State of Arizona, the Legislature of the State of Arizona, and the Arizona Area Health Education Center (AzaAHEC) led by Dr. Sally Reel for continued support for the mission of educating physicians who are ready and eager to serve the medically underserved citizens of Arizona.

## NAHEC/North Country HealthCare Family Medicine Residency Program

**Sean Clendaniel, MPH**

NAHEC Director

North Country HealthCare (NCHC)/Northern Arizona Area Health Education Center (NAHEC) is taking the lead in solving the physician shortage and ensuring access to healthcare across the region by establishing a Family Medicine Residency Program. NCHC received final accreditation on Tuesday, October 17th from the Accreditation Council for Graduate Medical Education (ACGME). ACGME is a private, 501(c)(3), not-for-profit organization that sets standards for U.S. graduate medical education programs and the institutions that sponsor them, and renders accreditation decisions based on compliance with these standards. NCHC's residency program will launch the inaugural class of four residents in July 2019.

The Family Medicine Residency Program will improve access to comprehensive, affordable, culturally competent primary care across northern Arizona by increasing the number of practicing primary care physicians. The program will engage family medicine residents in rotations throughout North Country HealthCare's service region of Coconino, Mohave, Navajo and Apache Counties, and it will have required rural rotations in Tuba City, Polacca and Whiteriver. Doing so will help prepare family medicine physicians for autonomous practice in rural and frontier northern Arizona. This program will be the only graduate medical education program in the US with a required rotation in American Indian communities.

## **The University of Arizona Mel and Enid Zuckerman College of Public Health Master of Public Health Program in Phoenix**

**Cecilia Rosales, MD, MS**

*Associate Dean of Phoenix Programs*

*Director of Phoenix Programs*

*Professor of Public Health*

MEZCOPH has established a Master of Public Health (MPH) program with concentrations in Public Health Practice (PHP) and Health Services Administration (HSA). Additionally, we offer a MD/MPH dual degree program in partnership with the College of Medicine – Phoenix as well as a PharmD/MPH dual degree with the College of Pharmacy cohort in Phoenix.

The MPH programs in Phoenix utilize a combination of distance and in person teaching modalities. The internship or capstone experience, required of all students prior to graduating, integrates what students learn in the classroom by working in a practice setting. Students integrate into their culminating experience the core courses such as Epidemiology, Biostatistics, Environmental and Occupational Health, Public Health Policy and Management, and Sociocultural and Behavioral Aspects of Public Health.

The basis for the original proposal to AHEC for funding the Program expansion was to establish a strong foundation for an accredited MPH program in Phoenix. Current year highlights were:

### **I. Continue our outreach efforts in Central and Northern Arizona**

MEZCOPH – Phoenix outreach efforts included numerous communications with representatives from state and county health departments, local hospitals, community health centers, Arizona State University, Northern Arizona University, Maricopa Community Colleges, the Arizona AHECs and others. These communication efforts provided information about our programming, invitations to participate in events, and general agency contacts. Additionally, the Phoenix Coordinator attended multiple events to showcase our programs and connect with the public health and student communities.

### **II. Further develop our relationship with the Arizona Public Health Association and the regional AHECs, specifically GVAHEC and NAHEC, to foster the development of public health professionals at multiple levels**

As part of the funding expectations, we were tasked with collaborating with the regional AHECs to help meet the mission of the AHEC program with respect to encouraging youth into public health careers. In order to accomplish this task, the Phoenix Coordinator connected with multiple individuals at GVAHEC and NAHEC, including directors and programmatic staff. Additionally, we partnered with the College of Medicine –

Phoenix, UA Admissions Office, and others to reach out to high schools, students, and families to discuss the importance of public health and the value of public health as an educational and career path.

With the regional AHECs, we jointly developed a Health Careers Toolkit. Toolkits included materials and a USB drive with instructions and guidelines for educators to conduct health career presentations and hands-on activities.

Another manner in which we have built community relations is through our MPH internships. Considered both the cornerstone of the MPH and the capstone experience for students, a significant number of internships serve the greater public health community and projects range in hours from 270 to 540. Our MPH PHP, MPH HSA and MD/MPH Phoenix students have served a wide variety of agencies with very diverse topics. Twenty-six internship projects started between August 1, 2016 and June 30, 2017 in the various AHEC regions.

### **III. Collaborate with other educational partners to support and develop interprofessional education**

In support of interprofessional education, our students and staff have been involved in several activities here in the Phoenix area, including the Pandemic, Team Behavior and Disability activities. The Phoenix Coordinator also served as a judge for the local Clarion Case Competition, with the UA team going on to win at the national competition. Additionally, the Phoenix Coordinator continues to serve on the planning committees for several UAHS interprofessional activities. We are working with academic partners to form and engage a Public Health Student Development Team to assist with enhancing public health involvement in the interprofessional activities hosted on campus. These efforts began in the FY17 cycle and are continuing into this academic year.

In April 2017, MEZCOPH in collaboration with GVAHEC and faculty/staff from UAHS partners in Phoenix and Tucson planned and hosted two Poverty Simulations on the Phoenix Biomedical Campus. The first session was an interprofessional effort from the planning stages through implementation; bringing together GVAHEC collaborators, community members, and students, staff and faculty from public health, nursing, medicine and pharmacy. The simulation was co-facilitated by the Phoenix Coordinator and a faculty member from the College of Medicine – Phoenix. The goal of the poverty simulation was to improve students' knowledge and understanding of the effects of poverty on health outcomes and the importance of working collaboratively on interprofessional teams to improve the health outcomes of those living in poverty.

The Primary Prevention Mobile Unit has attracted approximately 20 students from the health sciences have consistently participated, mainly medicine, public health, physician assistants, and nursing. We have been actively reaching out to five specific communities located in the south, north, west and eastside of

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## UA Zuckerman College of Public Health RHPP

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the Phoenix metropolitan area since April this year. Unit staff performed more than 150 screenings in addition to providing workshops for community health workers.

### **IV. Expand our distance-based educational offerings**

MEZCOPH – Phoenix has committed to developing and offering online public health programs to serve students in remote areas and those needing more flexible educational options. This development included an online MPH degree program, which had its first cohort students in fall 2015. Currently, there are approximately 140 continuing students in the online MPH with 72 students intending to matriculate in fall 2017. This program offers three concentrations: Health Promotion, Applied Epidemiology and Health Services Administration.

In fall 2016, MEZCOPH opened its online Bachelor of Science degree in Public Health to students. This program currently has 40 students between the pre-major and major, with those numbers increasing each term.

Clearly, there is significant interest in online public health programming options and our growing enrollment suggests we are meeting a demand for public health degrees previously unfulfilled. Additionally, by helping to develop public health professionals at multiple levels, we are contributing to the workforce needs in the health systems sector.

### **V. Stabilize enrollment in the MPH and MD/MPH Programs at the Phoenix Biomedical Campus**

Student enrollment in the Phoenix MPH (PHP and HSA programs) has successfully stabilized with a student body of 31 continuing students and 16 incoming students. Additionally, our MD/MPH program has seen significant growth with 12 current students and 16 new admits for the fall 2017. Including those that will graduate in August 2017, we have graduated 138 students from our programs. We continue to enroll a diverse student body, with increasing numbers of underrepresented minorities and working professionals.

### **VI. Continue to work towards achieving a self-sustaining program**

In summary, we have stabilized our teaching program and our interprofessional program component affiliated with the Primary Prevention Mobile Unit. We have also successfully acquired two researchers/instructors this past year (postdoctoral research associate and a non-tenure eligible assistant professor). In addition, we are collaborating with the UA Cancer Center and recruiting a Cancer Epidemiology research faculty whose academic home will be in the Division of Public Health Practice & Translational Research based in Phoenix.

## ***Integrating Pharmacy Practice Residents and Student Pharmacists into Practice to Promote Innovative Pharmacy Services in Rural Arizona***

**Amy K. Kennedy, PharmD, BCACP**, *Assistant Professor*  
**Kathryn Matthias, PharmD, BCPS**, *Assistant Professor*  
**Elizabeth Hall-Lipsy, JD, MPH**, *Program Director for Health Disparities Initiatives and Community Outreach*  
*UA College of Pharmacy*

With the passage of national health-care reform and the documented impact of pharmacists on patient outcomes and health-care costs, it is more important than ever to ensure that patients have access to quality pharmacy care and that our future pharmacists receive the necessary training to improve patient care and outcomes. This grant provides an interprofessional training and pharmacy workforce development program in a rural setting for pharmacy students and pharmacy residents. Additionally, this program will design and implement expanded clinical pharmacy services for rural populations that suffer from significant health disparities.

The program's second pharmacy resident participant from North Country HealthCare graduated in June 2017. North Country HealthCare has successfully recruited another pharmacy resident for the 2017–2018 cycle and this program has allowed them to expand to two residents. Kingman Regional Medical Center (1 resident) and Sun Life health center (3 residents) had successful recruitments in 2017. Lastly, this has allowed for experiences that are more robust for the 2016-2017 El Rio Community Health Center residents in enhancing their interactions with rural health professional colleagues.

Through the implementation of technology, we have been able to expand the number of programs participating in our resident leadership series (which includes pharmacy, dental, doctor of osteopathy and doctor of nurse practitioner trainees) to multiple sites across the state. In addition, the number of residents participating in PRSTL (Pharmacy Resident Scholars in Teaching and Learning) program has expanded.

Areas we are continuing to work on are successful recruitments at other rural sites for 2018-2019 and pursuing education credits for a public health elective available to rural residents.

## Clinical Translational Sciences Graduate Program Clinical Translational Sciences

### Jorge Gomez, MD, PhD

Assistant Professor of Public Health, MEZCOPH  
Associate Director, Center for Elimination of  
Border Health Disparities

The Clinical Translational Sciences graduate program (CTS) received support for education regarding clinical translational sciences as a means to address health disparities. The beneficiaries of these educational efforts are primarily the participating CTS students, but also include members of the public who benefit from both public health education and the training of current and future health professionals in clinical translational science.

The primary activity undertaken in 2016 in support of the grant's goal was the participation of two CTS Ph.D. students, Alane Dy and Shreya Sangam, in a Border Health Service Learning Institute (BHSLI) in August 2016, which was in collaboration and hosted by SEAHEC.

The BHSLI supports the goal of this grant in two ways. Primarily it served as an educational experience for the participating CTS students, who learned about how health issues are identified and defined in specific local settings and gained exposure to local initiatives to address those issues. This experience allowed the students to situate their learning in the CTS program in real-world settings, which will help them be effective in terms of focusing their efforts as researchers on problems that are significant to specific populations. The secondary benefit of the BHSLI was to the members of the public whom the students encountered. The CTS students engaged with the public, directly assisting them in some cases and supporting local efforts through their interest and by passing along the information they gained.

## Border Latino and American Indian Summer Exposure to Research (BLAISER)

### Jorge Gomez, MD, PhD

Assistant Professor of Public Health, MEZCOPH  
Associate Director, Center for Elimination of  
Border Health Disparities

The University of Arizona Health Sciences (UAHS), launched a novel summer program entitled Border Latino & American Indian Summer Exposure to Research (BLAISER). BLAISER is strongly committed to attract students that represent the diverse population to biomedical research, make them sensitive to the Health Disparities in Southern Arizona and the border



2017 BLAISER students, Director, program coordinator and student workers.

region and expose them to biomedical research. The program pairs students with top UAHS scientists who provide exposure to innovative research, guidance, advice, and assistance in navigating a career as a health science professional and/or in translational health sciences. The program goal is to expand the pipeline of future physician scientists and health care researchers.

BLAISER is held annually in the summer (10 weeks) to allow students the opportunity to immerse themselves on campus at the University of Arizona Health Sciences with border community experiences in Nogales, AZ, hosted by SEAHEC.

In 2017, 78 applications were received of which a selection committee reviewed and ranked the applicants according to their GPA, student leadership experience, their interest in health sciences, and their interest on health disparities principally. Twenty students were selected.

BLAISER provides the following training and support activities:

1. **Mentorship by a UA biomedical researcher or medical scientist working on translational research.** According to their lab interests, students were paired with a preeminent researcher in that area.

Demetria Clichee a Navajo student, from Northern New Mexico College, described her experience as follow: *"The BLAISER program has provided me with several skills that I will benefit from in the future. A few of these skills include learning new lab techniques, navigating different career pathways, enhancing my understanding of health disparities within the border region, and being able to network with faculty and peers. I was able to strengthen my resume by learning new lab techniques, which ultimately made me a competitive candidate for research positions back on the Navajo Nation.*

2. **Learning to master the medical and graduate application processes.** Students attended a personal session with a UAHS pre-health advisor to guide them through the right academic pathway, and with a writing specialist from UA

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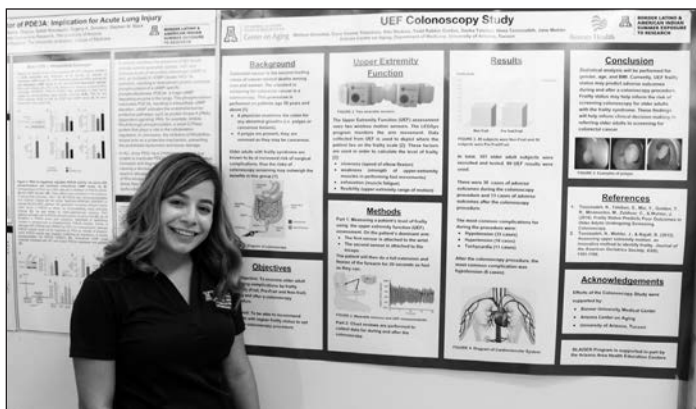


## BLAISER

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Think Tank to enhance the development of their personal statement. Students also attended a Med School Admission Panel session with experts from the College of Medicine (COM) Tucson and Phoenix. They were informed about two different pathways for Arizona Residents to go to Medical School through Pre-Medical Admissions Pathway (P-MAP) at COM-T and Pathway Scholars Program (PSP) at COM-P.

3. **Financial Aid Guidance and Advice.** Students learned all the financial requirements and opportunities needed to go to Medical School. According to the 2017 BLAISER post-survey.
4. **Minorities Health Disparities Lecture Series.** Students attended ten lectures focused on health disparities, which were given by experts in their respective area of expertise. This lecture series ranged from border health disparities, access to health care, specific diseases affecting disproportionately some population groups in Southern Arizona, to the application of basic and clinical research to health disparities.
5. **Training and preparation for the GRE and MCAT exams.** Students participated in workshops provided by Princeton Review for GRE, and for the MCAT preparation by UAHS ODI Learning Specialists.
6. **Learning how to create and present a research poster.** In collaboration with the students' mentors and the UAHS ODI Learning Specialists, they learned how to create a poster depicting their research project.
7. **Travel to Nogales AZ.** In partnership with SEAHEC, trips were organized in order to learn about health disparities issues in Southern Arizona communities.



Melissa Gonzalez poster presentation with UROC at the SU-North Ballroom on August 7, 2017.



Jasmine Curry, working at Dr. Prabir Roy-Chaudhury lab.

8. **Experience on Poster and Oral presentations of their Research Project.** In the last two days of the program, students presented their poster along with ten other summer programs through the UA Undergraduate Research Opportunities Consortium (UROC). Please see table, which depicts the poster titles, students, and mentors. At the closing ceremony each student presented these projects.

BLAISER student, Ariana Cano, from ASU, said, *“The research experience, poster session, and presentation were all new to me. These experiences helped me develop skills such as scientific writing, critical reading, public speaking, and literature review and analysis. These skills will be important for me to continue to develop as I move forward in my career and in the quest to improve patient care in the future”.*

At the end of the program, the students were evaluated based on their attendance, general performance, effort, lab work, and research project presentation.

According to the 2017 BLAISER post-survey, creating a scientific poster, conducting a research, taking in the MCAT and GRE preparation courses and learning about Minority Health Disparities throughout the lectures series were the greatest accomplishment this summer for the students.

BLAISER student Jon Roe, stated, *“The BLAISER program was everything that was advertised and more. After completing this program, I feel prepared to face the challenges of being a pre-med student to strive to be a physician. As a physician, I want to be engaged in current research and find ways to bring that research to the underserved communities in Arizona and along the border region”.*

## BLAISER Students & Mentors

Student Name	Mentor Name	Activity/Poster Presentation
Alexandra Osorio	Jason X.-J. Yuan, MD, PhD	In associated pulmonary arterial hypertension, do Hispanics develop worse RV failure compared to Non-Hispanics?
Angie Dorame	Rajesh Khanna, PhD	Dissecting the Role of the CRMP2-Neurofibromin Complex on Pain Behaviors
Aracely Galarza	Stephen Black, PhD	Endothelial PKG-1 $\alpha$ as a Critical Regulator of PDE3A: Implication for Acute Lung Injury
Ariana Cano	Heidi Hamann, PhD	Understanding Provider-Level Barriers to Referring Patients for Lung Cancer Screening Using Low-Dose Computed Tomography
Aurora Hurtado Olivas	Michael Hammer, PhD	Selective treatments for the tauopathy of infantile epilepsy
Anna Rebeca Monroy	Paloma Beamer, PhD	Using Diet to Predict Levels of Inorganic Arsenic in Urine
Daniel Valera	Joe GN "Skip" Garcia, MD	Novel Drugs developed by the University of Arizona are treating Acute Lung Injury
DeAnthoni Wilkins	Mark A. Nelson, PhD	The Effects of TAF1 Mutations on Cell Proliferation and Cyclin Gene Expression
Demetria Clichee	Kenneth S. Ramos, MD, PhD, PharmB	Respiratory Carcinogens Cadmium (Cd) and Nickel (Ni) Lead to Irreversible Epigenetic Changes at the Promoter of Long Interspersed Nuclear Element-1 (Line-1/L1) After Cessation of Exposure
Eric Joshua Moreno	Louise Hecker, PhD	Genomic Mapping for NOX-4 Gene in Knock out Mice
Graciela "Zonnie" Olivas	Julie Armin, PhD	Preliminary Results from a Self-Assessment of Cultural & Linguistic Competency
Jasmine Curry	Prabir Roy-Chaudhury, MD, PhD	Efficacy Assessment of Nitric Oxide Releasing Catheters in a Model of Dialysis Catheter Dysfunction
Jonathan Roe	Dawn K. Coletta, PhD	Association of SNP rs1044498 in ENPP1 with Insulin Resistance in the AIR Registry
Kristina Vasta	Gerardo U Lopez, PhD	Bacteria and Your Kitchen: Exposure to Foodborne Illnesses
Melissa Gonzalez	Jane Mohler, RN, MSN, MPH, PhD	UEF Colonoscopy Study
Micah Secor	Fabian Fernandez PhD	Longitudinal Study of Circadian Rhythms in <i>D. ananassae</i>
Paulina Awuah	Joe GN "Skip" Garcia, MD	Transcriptional Regulation of NAMPT by Mechanical Stress and Inflammatory Factors in Human Lung Pulmonary Endothelium
Reginald Rayford Jr.	Lawrence Mandarin, PhD	Quantitative Proteomic Analysis Shows an Effect of High Fat Diet in the Kidney of Obese Mice
Sarah Hernandez	Todd Vanderah, PhD	Efficacy of PNA5 in Inflammatory and Acute Pain Models
Toluwani Adenuga	Andrew Kraft, MD	A Mouse Model for Prostate Cancer using Lentiviral Transduction of Oncogenic genes

## The University of Arizona College Medicine – Tucson Med-Start Health Careers Program

**Lydia Kennedy, MEd;** *Project Director*  
**Francisco Moreno, MD;** *Principle Investigator*

### Progress on Program Objectives/Findings:

Med-Start is an academic enrichment and health career exploration program. Since 1969, Med-Start has prepared high school juniors from rural, border, tribal, and other educationally and economically disadvantaged communities throughout Arizona. Med-Start supports Arizona high school juniors in preparing for their future careers in the health professions by providing the opportunity to take college level coursework in English, Chemistry, and Math while experiencing six-weeks of residential life on The University of Arizona campus. Med-Start students also participate in health career lectures, interactive tours in academic institutions and healthcare facilities, an academic conference and AHEC presentations. An important goal of Med-Start is to expand the "health professions" pipeline of diverse and culturally competent students by encouraging Arizona high school students from economically or educationally disadvantaged as well as under-represented minority students to pursue careers in science and healthcare.

Applicants are recruited from communities across Arizona in collaboration with: AzAHEC, Tucson College Night, Health Occupations Students of America (HOSA), Intertribal Council of Arizona (ITCA), League of United Latin American Citizens (LULAC), Maricopa Community College District Achieving a College Education (ACE) Plus Program, Mathematics, Engineering, Science Achievement (MESA), Talent Search, Upward Bound; and other programs for underserved populations.

Arizona high school students who are currently in their junior year are invited to apply for the Med-Start Health Careers Program. A selection committee reviews and ranks applications, selecting students who demonstrated interest in pursuing a health career, top academic performance, student leadership experience and community involvement. Many of the students are from under-represented groups and/or disadvantaged backgrounds. For the 2017 application process, we received 273 online applications for the Med-Start Health Careers Program. Forty-four students completed the program. Thirty-six students were AHEC funded and eight were HRSA-COE funded. Med-Start students represented 32 Arizona high schools from all regions of the state.

Med-Start is about building teams and relationships and the color code was effective in understanding what motivates

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## Med-Start

*Continued from page 25*

people to do well. Upon the arrival of the students, the counselors were prepared and introduced the students to the characteristics of highly effective teams, introducing the stages of team development and individual differences and cultures within teams. Activities designed to develop students' teamwork skills, constructive communication and conflict resolution skills, provide strategies for the competitive team-based project and recreational time throughout the program.

The AHEC Region Research Project Workshop provided an opportunity to meet and greet each AHEC representative and begin development of each region's team-based project. The AHEC projects are an important part of Med-Start as the students from each respective AHEC region create a health community awareness project that is implemented in each Arizona AHEC service area and marketed to educate their community. The Med-Start students increased their knowledge and skill levels in the team-based approach while working with their assigned AzaAHEC representative to develop ideas and plans for their selected projects. Students became effective in working in teams, assigning different tasks to each member. While the Med-Start students worked on their team projects, they also worked to become familiar with the many different health professions they might pursue. For example, they realized that bio-medical engineering was a career to consider when being introduced to the medical simulation lab. While researching the diseases the residents of their home communities faced, the students learned about health disparities impacting different populations and regions.

Additionally, students participated in academic and health career exposure activities during the six-week program including: writing essays, math preparation to increase their proficiency, chemistry where they used formulas to create glow sticks and paint colors, college application preparation tips, sheep heart dissection, intubation, suturing, IV procedures, and rescue training. Students also learned about a variety of health profession careers with weekly career chats from health professionals.

At the completion of the program, the students presented their AzaAHEC research health awareness community projects at the Academic Conference. These presentations illustrated some of the advances the students had made in inter-professional collaborative team building, and demonstrated the integration of mentoring relationships with AzaAHEC representatives,



*2017 Med-Start Students*

Med-Start staff and instructors, while focusing on health topics relevant to their home communities. At the Med-Start closing ceremony, students and their families celebrated their achievements. The students will speak about their experiences with Med-Start and assist in the recruitment process for next year.

We are grateful for the continued collaboration with AzaAHEC and the AHEC regions for the successful completion of the 48th year of the Med-Start summer program.



### **AzaAHEC Sponsorship of Arizona Rural Health Conference**

Once again, AzaAHEC was proud to be a platinum sponsor of the 44th Annual Arizona Rural Health Conference in Flagstaff, Ariz. in August 2017. Registrants from across Arizona met to discuss rural health, foster collaboration, and report on Arizona programs and projects. The UA Mel and Enid Zuckerman College of Public Health, Center presents this annual event for Rural Health. The conference provides an environment to dialogue, network and attend educational activities regarding rural health.



*The five regional AHEC Directors at the Arizona Rural Health Conference*



# Intramural Grant Program

Since FY 2007, AzaAHEC has supported innovative, interprofessional education programs and research through a competitive intramural grant program. In 2016–2017, three grant programs were supported as follows:

- ▶ **Community Engagement Research Grant Program:** The purpose of this program is to foster meaningful community engagement for translating research into practice, reflective of the health needs of Arizona’s communities. This pilot program aims to stimulate the development and enhance the maturation of academic-community research teams capable of performing highly innovative, extramurally-fundable, community-engaged research that will sustainably contribute to the health and well-being of Arizona’s diverse populations.
- ▶ **Faculty Development Research Grant Program:** The purpose of this program is to support well-defined clinical or translational research projects leading to measured outcomes, such as preliminary data for an extramural grant submission. Preference is given to junior investigators and investigators undertaking a new area of focused research related to the UAHS priorities of health disparities, population health, precision medicine and neuroscience.
- ▶ **Research and Project Small Grant Program:** The purpose of this program is to provide UA health sciences graduate students, trainees and residents with an opportunity to gain experience in rural and urban medically-underserved Arizona communities through research and/or scholarly projects. Projects should demonstrate interprofessional education or practice models and address community needs specific to one or more of the AzaAHEC regions of service.

New grantees from the above programs as well as continuing grantees from previous programs are listed below. The following pages highlight recently-completed and continuing projects.

## ***Students Training Students in Healthy Lifestyles: Project SASS as a Model to promote Sun Safety in rural Arizona Communities***

**Lois J. Loescher, PhD, RN, FAAN, Principal Investigator**  
**Gail Emrick, MPH, co-investigator**

Skin cancer is a growing problem among Hispanics in the U.S. The main cause of skin cancer is over-exposure to ultraviolet radiation (UVR). UVR damage to the skin is cumulative and irreversible so limiting overexposure during youth can help prevent skin cancer later in life. Adolescents have a known high exposure to UVR. There is a paucity of research on skin cancer prevention in Hispanic adolescents, and no studies in rural Hispanic adolescents.

The aim of this community engagement project was to study the feasibility and efficacy of training high school students in rural Southeastern Arizona (SEAZ) to be peer educators for an existing youth-oriented skin cancer prevention program, *Project Students are Sun Safe (SASS)*. Faculty and health educators at the University of Arizona (UA) Colleges of Nursing and Public Health, and the Skin Cancer Institute (SCI) at the UA Cancer Center have successfully implemented SASS in Tucson middle and high schools (reaching over 5000 students) over the past 7 years. The current model trains university students in health sciences to teach sun safety to middle and high school students. Students enroll in an online academic course; the short-term outcome is to deliver a SASS lesson to community schools. The long-term outcome is to reduce skin cancer risk.

A new partnership between the UA (Colleges of Nursing and Public Health, Skin Cancer Institute), and the Southeast Arizona Area Health Education Center (SEAHEC) facilitated dissemination and implementation of SASS to rural Hispanic adolescents in SEAZ. The UA and SEAHEC partners reached consensus on the targeted rural schools (Bisbee, Douglas, and Nogales High Schools), modifications of the existing SASS training and lesson, implementation of the modified SASS (renamed *Border SASS*) in the high schools, and project evaluation. The SEAHEC partners recruited students in health career clubs from each high school to train them as peer educators. The UA-SEAHEC partnership provided important skin cancer prevention training and education to SEAZ youth, including youth in largely Hispanic and underserved rural communities. It also provided a model for bringing health behavior education to rural communities using a sustainable framework.

The UA and SEAHEC partners collaborated to review and modify the original UA Project SASS online training content to be culturally and grade-level appropriate. The final peer educator training consisted of three online modules and an in-person training session. The SASS classroom lesson consists of a PowerPoint presentation and sun safety activities (sunscreen activity, fabric activity, and skin analyzer activity). The partners also modified the SASS classroom lesson plan and presentation. The partners created a voiceover for some parts of the classroom presentation to maintain fidelity of the intervention and allow adequate time for completion of Border SASS during classroom periods.

The SEAHEC partners selected 18 students in the health career clubs (six students from each high school), to be peer educators and participate in Border SASS. Consenting students completed

## New and Continuing Grant Projects

Award Year	Principle Investigator	Project Title	College/Department	Amount Awarded
<b>Community Engagement Grants</b>				
2017	Monica Vandivort, MD	A Community Paramedicine-Primary Care Partnership in Rural Cochise County to Improve Health Outcomes for Severely Ill Elders	UA College of Medicine – Phoenix	\$50,000
2015	Jennifer Hartmark-Hill, MD, FAAFP	Management of Hypertension & Diabetes in the Homeless Population: A Pilot Study	UA College of Medicine – Phoenix	\$50,000
<b>Research and Project Small Grants</b>				
2016	Lisa Stoneking, MD, FACEP	Better Preparing Emergency Physician Trainees for Rural and Global Practice Settings: a longitudinal component of University of Arizona’s South Campus Emergency Medicine graduate medical education curriculum	UA College of Medicine – Tucson	\$5,000
	Ashley Lowe, BS	The Epidemiology and Environmental Determinants of Childhood Asthma on the Navajo Nation: A Needs Assessment	UA Zuckerman College of Public Health – Tucson	\$5,000
2017	Martin Cisneros, MPH	Development and implementation of a chest compressions-only CPR Spanish Video	UA College of Medicine – Phoenix	\$5,000
	Georgina Amaya, BSN, RN	Personal and socio-economic factors influencing pesticide exposure in Hispanic migrant and seasonal farm workers	UA College of Nursing	\$2,553
<b>Faculty Development Research Grants</b>				
2017	Tally Largent-Milnes, PhD	Sex Hormone Regulation of Sodium-Proton Exchangers: Relevance in Migraine	UA College of Pharmacy	\$10,000
	Shalini Sharma, PhD	Role of splicing factor phosphorylation in the development of myeloid malignancies	UA College of Medicine – Phoenix	\$10,000
	Joel Funk, MD	Identification of predictive genetic and histological markers in the progression of benign prostatic hyperplasia	UA College of Medicine – Phoenix	\$10,000
	Anup Srivastava, PhD	MKK3-Mitochondria Interactions in Endothelial Activation	UA College of Medicine – Phoenix	\$10,000
	John Streicher, PhD; Attila Keresztes, PhD	Investigation of synergy between cannabinoid-induced cancer cell sensitization and cell death via the activation of DR4 and DR5 death receptors	UA College of Medicine – Phoenix	\$10,000
	Ruth-Taylor-Piliae, PhD, RN, FAHA	Novel Dual-Task Balance Challenge to Prevent Falls in Older Adults	UA College of Nursing	\$10,000

a baseline survey on skin cancer risk factors, knowledge, attitudes, and risk-reducing behaviors. The students accessed self-paced online modules through the Community Desire2Learn platform. They also attended an in-person training workshop held at the UA in October 2016. The peer educators completed two similar surveys: one two weeks after completion of the training workshop and the second four months later, to evaluate skin cancer knowledge, beliefs, and self-reported skin cancer risk reducing behaviors.

SEAHEC partners scheduled Border SASS lessons at each high school. Classroom presentations occurred between December 8, 2016 and March 1, 2017 in Bisbee, Douglas and Nogales High Schools. Approximately 220 students received the Border SASS lesson during this time. Consenting classroom students completed a baseline survey that measured skin cancer knowledge, attitudes and risk-reducing behaviors, and a similar survey immediately after the Border SASS lesson and four months later.

The UA partners evaluated the peer educators and classroom students who completed all three surveys. Sixteen of the 18 peer educators were included in statistical analysis. Peer educators’

overall skin cancer prevention knowledge significantly improved from baseline to two weeks post training, and was sustained at an acceptable level ( $\geq 70\%$  of knowledge items correct) for four months. Peer educators improved in all skin cancer risk-reducing behaviors; at four months post training they reported significantly reduced wearing of shorts, sandals, and increased wearing of a wide-brimmed hat. The peer educators sustained behaviors of shade seeking, applying sunscreen with SPF of 30 or higher, wearing of sunglasses and not visiting a tanning booth.

Two hundred twenty classroom students completed the pretest before receiving the Border SASS lesson. The final classroom student sample (students who completed all three surveys) for data analysis was 198 students. After four months, the classroom students showed a significant improvement in knowledge immediately after participating in the Border SASS lesson. Sun protective behaviors, with the exception of sunscreen application, were significantly higher at four months after the lesson than at baseline.

The community partners disseminated information on the Border SASS process and findings. Dr. Loescher, the primary investigator, presented preliminary findings to the Society of

Behavioral Medicine, in San Diego, the UA Cancer Center Cancer Prevention and Control Seminar in March 2017, and Sigma Theta Tau, International in Dublin, Ireland in July 2017. The SEAHEC partners (Ms. Emrick and Ms. Machain) presented posters about Border SASS to the Arizona AHEC Rural Health Conference in April 2017, and the Arizona Rural Health Conference in July 2017. Additionally, one peer educator developed a poster on “knowing your moles” and a handout for a presentation to Med-Start Students. Several Med-Start Students developed a public service announcement on sun safety and skin cancer in Spring 2017. The team submitted a manuscript summarizing the peer educator training and dissemination and implementation of Border SASS in rural high schools to *Journal of Cancer Education* in early September 2017.

Border SASS is the first program to target rural Hispanic adolescents as peer educators for sun safety. Our university-community partnership was essential for the success of the project. The partnership achieved enhanced community capacity through improved and sustained behaviors of over 200 primarily Hispanic rural adolescents. The community partners have continued access to the Community D2L modules and Border SASS lesson for training future students to present Border SASS or for teaching individual students.

A major strength of the project was its focus on an understudied and increasingly vulnerable population of Hispanic adolescents living along the Arizona-Mexico border—an area with high UVR exposure. The next step will be to pursue further expansion of Border SASS to other rural high schools in Arizona through additional state or federal funding sources.

## ***SHOW Clinic: Health Education Classes to Improve Self-Management of Hypertension and Diabetes in a Homeless Population***

**Jennifer Hartmark-Hill, MD; Sophie Sun, PhD**

*Principle Investigators*

Student Health Outreach for Wellness (SHOW) is a non-profit, student-run free clinic that brings together an interdisciplinary team of healthcare volunteers to serve the homeless population of downtown Phoenix. Patients experiencing homelessness often have deficits in their access to healthcare, medication compliance, and health-related communication. The proposal was to create health education classes for hypertension and diabetes mellitus patients to improve their medical understanding and increase adherence to long-term treatment.

We developed a task force of student leaders to ensure the timely and effective execution of this project and met with several faculty members who are experienced in identifying health needs in homeless populations, developing health education projects, and measuring health behaviors. We then finalized the research

instruments, handouts, and class outlines used for the health education classes, and we submitted our IRB application to The University of Arizona.

After IRB approval, we began volunteer recruitment, classroom reservation, and supplies purchasing. From September 17 to December 17, 2016, we cycled through our six-session chronic disease course twice. After completion of these two cycles, we created a poster to present at the Society of Student-Run Free Clinics conference in Anaheim, CA, on February 11-12, 2017. In total, we had 22 unduplicated students who attended these classes.

A few changes were made to the scope of the work and these included:

- ▶ Instead of separate courses for homeless patients with diabetes and those with hypertension, our target population became homeless patients with co-morbid diabetes and hypertension.
- ▶ Our original plan included four repetitions of a four-week course. This changed to two repetitions of a six-week course. From our communication with other organizations that have held similar types of courses, we believe that attendance would drop significantly after 6 weeks, which is why we chose this limit for our timeframe.
- ▶ Survey data was collected using research instruments developed by Kate Lorig’s program at the Stanford Patient Education Research Center, which are free for public use. Given the timeline of our project and potential challenges with following up in a homeless population, we thought it would be unlikely for us to demonstrate significant changes in blood pressure measurements or glucose levels. Rather, we have shifted more emphasis to our patients’ understanding of their own diseases, coping skills, access to healthcare, and health behaviors.

The content of this course will be adapted to facilitate single-session courses. Additionally, we are considering implementing a version of this course at a local substance rehabilitation facility.

## ***Evaluating an Interdisciplinary Group Prenatal Program to Improve Health Outcomes among Somali Refugees in Southern Arizona***

**Colleen Cagno, MD**, *University of Arizona Department of Family and Community Medicine*

The primary goal of this pilot study was to evaluate a group visit model to improve birth outcomes among Somali refugees in Tucson, Arizona. The project consisted of two phases. Phase 1: Partnership Development and Phase 2: Pilot Research Study. This project is a partnership between the Department of Family and Community Medicine (FCM) at the University of Arizona, the Southeast Arizona Area Health Education Center (SEAHEC),

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## Interdisciplinary Group Prenatal Program

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and the International Rescue Committee (IRC). This collaboration between organizations resulted in a group visit model that included physicians (faculty and residents), nurses, and community health workers (Well-Being Promoters), and provided a standardized curriculum and evaluation tools for stakeholders, which could be easily disseminated throughout the State of Arizona and beyond.

We began partnership development early on, prior to receiving the AHEC grant. In 2012, the IRC of Tucson proposed a partnership between FCM, the University of Arizona's Master of Public Health program, and the IRC's Well-Being Promotion program to develop a group prenatal care program for Bhutanese refugee women. The Well-Being Promotion program was an education, referral and advocacy program that utilizes the community health worker model. The IRC helped identify successfully resettled refugee women (called Well-Being Promoters), and trained them to assist newly arrived refugee women from their own culture during the initial resettlement process. The Well-Being Promoters fostered leadership skills and empowered women to become their own advocates through educational in-home visits on health and wellness, financial literacy, and community services. With the help of IRC's Well-Being Promotion Program, FCM resumed the group prenatal care model, and adopted a pregnancy-centering curriculum including a patient needs assessment to identify topics important to the pregnant women in the group. The topics covered included basics of prenatal care, nutrition, control of pain in labor, infant safety, breastfeeding, family planning, mood changes during and after delivery, and barriers to medical care. Assigned to the group were three Bhutanese Well-Being Promoters who served as interpreters of both language and cultural practices. Through participation in this process, they also received valuable evidence-based education regarding pregnancy and postpartum care they could later share with other community members. The Bhutanese group visit program ended in 2013 after all participants delivered their babies. With the cessation of the Bhutanese group, FCM and IRC partnered to launch the current Somali group prenatal care program in early 2013.

The Somali Prenatal Group met monthly officially beginning in November 2014 and was facilitated by the medical team including a faculty physician, nurse, Somali Well-Being Promoter, and 1 resident physician who lead and facilitated the health education. The faculty physician informed the medical resident of the health topic previously identified by refugee participants for residents to research and prepare, ensured the quality of education provided, and facilitated patient engagement in the discussion. The FCM and IRC staff collaborated to ensure patients had transportation to the FCM office and provided on-site babysitter for the young children accompanying their mothers to the group. The Well-Being Promoter provided in-person language interpretation and contributed to the group discussion to clarify key points and cultural practices. The number of participants attending varied with an average of 3 per session, with capacity for 8 attendees. In total, our team held 19

prenatal groups on 17 different topics. As a team, we were able to create a PowerPoint presentation template and lesson plan.

Following the success of partnering with the IRC Well-Being Promotion Program, FCM recognized the need for an additional partner to expand this model of group visit care and identified SEAHEC as an ideal partner. Established in 1984 as the first of five regional centers in Arizona, SEAHEC serves Cochise, Pima and Santa Cruz counties.

This partnership between FCM at the University of Arizona, SEAHEC, and IRC has taken steps to reduce the healthcare disparities, measure birth outcomes in a group of minority women, and create meaningful change through community health education. The partnership also successfully established culturally sensitive evaluation tools and contributed to data collection that will serve as the basis for obtaining external funding.

## Interprofessional Community-based Clinical Faculty Development

**Myra Muramoto, MD, MPH; Paul Gordon, MD, Professor, Family & Community Medicine and Tejal Parikh, MD, Assistant Professor, Family & Community Medicine – College of Medicine**

Students from University of Arizona Health Sciences go to many rural parts of the state for their clinical training. This project provided faculty development to rural preceptors who provide that clinical training. This ensures preceptors have teaching skills to match their clinical expertise, which then creates the best learning environment for students.

We have provided faculty development to rural faculty members for over fifteen years and AHEC has helped support this effort in the last five years. In 2016-17, we provided three faculty development programs in Nogales in collaboration with the Mariposa Community Health Center and SEAHEC. At the conclusion of the training, participants were able to:

- ▶ Describe the characteristics of effective teaching in different teaching settings
- ▶ Given a principle of adult learning, describe how that principle can be applied to clinical teaching settings
- ▶ Describe a strategy for assessing learners' clinical skills.
- ▶ Given a learner in a clinical situation, assess that person's clinical knowledge/skills using the strategy
- ▶ Describe the components of a systematic approach to clinical teaching
- ▶ Describe strategies to improve teaching in the lecture and/or office settings.
- ▶ Given a case involving a difficult learner, specify a plan to address the individual's problem
- ▶ Describe how computers are used in medical education and demonstrate use to access the medical, nursing and pharmacy literature

We are confident that the faculty has benefited from these seminar series.

# Regional Center Directors' Reports

## Eastern Arizona Area Health Education Center (EAHEC) Activities

### Workforce Development Summary - EAHEC

Type of Program	Participation
Health Careers Preparation Participants	3,887
Health Professions Trainee Experiences	120
Continuing Education Health Professional Participants	198
Community Health Education Participants	861



**Jeri Byrne, BA, MS**

*Executive Director, Eastern Arizona Area Health Education Center*

The Eastern Arizona Area Health Education Center, Inc. (EAHEC) main office is in the rural communities of Globe/Miami Arizona. EAHEC is the “most” rural of the five AHEC centers and enjoys that challenge and status. We have been working with community partners, healthcare facilities, medical communities as well as community leaders within our region for over 12 years, always with the goal in mind to do all we can to present the region in an appealing and exciting way. This approach makes the job of recruitment much easier, but still very challenging. Through the years, EAHEC has boasted success as hospitals, family practice clinics, and health departments have hired EAHEC supported health profession students and residents. EAHEC will continue to meet our mission by recruiting and retaining great clinical preceptors and clinical sites, assisting the health professionals within the region with quality educational offerings, assist in meeting student needs, create and implement excellent pipeline programs for school age students interested in exploring a future in the health professions and work with our communities to address community health issues.

New this year was the addition of a training center on the campus of the Cobre Valley Regional Medical Center, also in Globe where EAHEC could deliver and implement continuing education for healthcare personnel, workforce participants, and community members. This year the center held a series of programs on Chronic Disease Self-Management, and Learning to Live Successfully with Diabetes, as well as healthcare CPR, Soft Skill Training, Communication, and Stress Management workshops and the implementation of our Scrubs Camp and Shadowing Program for 6th-12th grade students. Approximately 200 participants have utilized this training center this year.

EAHEC has been very busy with the development of new clinical sites for Primary Care Residents to come to the region for 4 weeks to better understand and experience rural medicine. EAHEC’s current clinical residency sites are in the rural communities of Safford, and Payson. Payson is our newest clinical site to place medical residents. EAHEC has very high hopes in regards to this clinical site for major recruitment of health professionals into that community. EAHEC supported approximately 12 South Campus residents through housing.

EAHEC also works closely with the Eastern Arizona College and Gila Community College nursing faculty to support the nursing program. EAHEC has a large pool of nursing students that are supported through a stipend that afford rural students to travel some distance to receive this education. This partnership has blossomed into a wonderful summer program call “Scrubs Camp” in which rural 6th-9th grade students interested in nursing or other allied health professions are selected to attend this 3-day immersion camp. This year 53 students participated.

Summer initiatives are very important to EAHEC and we work with other Arizona AHEC centers to offer a week long Future Health Leaders Summer Camp in which a 10th -12th grade student is selected to attend this great college, health related event. In addition, EAHEC also supports the historical Med-Start Program at the University of Arizona.

Unique to our region is the “Pathways into Health” San Carlos 5th grade initiative in which students explore the 5 strands of science as well as cultural topics as they relate to the Apache Tribe. This program is held each week in a classroom, taught by EAHEC Board Member, Roberta Patten, and a 3-week summer program is held in June where the students enjoy hands on activities, field trips, and special speakers which supports all they learned throughout the year. EAHEC is the main source

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## EAHEC

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of funding for this important project as well as support through classroom speaker.

EAHEC staff are dedicated to working with the AzaAHEC program to address the emerging healthcare workforce needs. Often in rural parts of the state, programs that enhance skills needed to work effectively with other staff and employers

are often not a priority as compared to specific clinical skills. EAHEC has developed a series of excellent Professional and Personal Development programs that are offered throughout the region at little to no cost to the facilities to address some these workforce issues. This has been a successful initiative within the region, and one we hope to continue.



EAHEC has always had a goal of “recruitment” in mind when we accept and place clinical students within our region. Christopher Sessions is again one of our success stories. Christopher was a physician assistant student from A.T. Still University in February of 2016 when he was placed at Cobre Valley Regional Medical Center (CVRMC), Emergency Department for a six (6) week clinical rotation.

It was soon after this experience that Christopher decided that he really enjoyed the small community of Globe/Miami Arizona and the people he met during his rotation.

After graduation in August of 2016, Christopher decided that Globe/Miami was the place he wanted to begin his exciting medical career as a physician’s assistant. Christopher applied with CVRMC in the Emergency Department and was hired. He has been employed for approximately one year, with plans to continue to work in Globe/Miami.

EAHEC is pleased to have played a role in the future of this student who not only had an excellent clinical experience but also chose rural Arizona as the place to begin his health career.



*AzaAHEC Future Health Leaders Summer Camp participants*



# Regional Center Directors' Reports

## Greater Valley Arizona Area Health Education Center (GVAHEC) Activities

### Workforce Development Summary - GVAHEC

Type of Program	Participation
Health Careers Preparation Participants	661
Health Professions Trainee Experiences	228
Continuing Education Health Professional Participants	2,563
Community Health Education Participants	4,767



**Martha McNair, MBA, RDN**  
*Director, Greater Valley Area Health Education Center*

This year The Greater Valley Area Health Education Center (GVAHEC) at Empowerment Systems, Inc. was proud to celebrate its 10th year of improving the health and wellness of rural and

underserved communities in our service area of Maricopa, western Pinal and southern Yavapai counties. We are happy to report the results of our on-going programs as well as highlight our new partnerships and accomplishments during the past year.

#### Undergraduate Medical Education

This year GVAHEC established and renewed relationships with clinical partners with the common goal of preparing health professions students to effectively provide health services to rural and underserved populations of Arizona. New agreements with Horizon Health and Wellness, Wesley Golden Gate clinic and Gila River Health Care have resulted in expanded clinical rotations for medical students from the University of Arizona. GVAHEC coordinated several Interprofessional Educational (IPE) activities at the Wesley clinic, which included staff and health professions students from the fields of nursing, medicine, dentistry, dietetics and others. Discussions occurred about topics and cases in a “lunch and learn” format with emphasis on the contribution of each discipline as part of a team-based patient care approach. We are excited about future collaborative endeavors with each of these partners to enhance and further expand community-based clinical training.

#### Community Health Workers

GVAHEC continued to support the Community Health Worker as a vital component of the health-care workforce contributing to improved health outcomes. We provided travel stipends to the first cohort of Central Arizona College’s (CAC) Community Health Worker certificate program, which began

in the Fall of 2016. Five individuals completed the program and 15 new students enrolled in the second cohort. GVAHEC has partnered with Pinal County Public Health to sponsor three Pinal employees to attend the year-long CAC certificate program. GVAHEC has also made available ten Chronic Disease Self-Management Program (CDSMP) lay-leader training opportunities to community health workers in our region.

#### Human Papillomavirus Grant

This fiscal year was our third year of participating in the HPV grant project through the National AHEC Organization and the Center for Disease Control. In late 2016, the CDC modified the recommended HPV vaccination schedule for 11 to 12-year olds. GVAHEC helped spread the word about the revised recommended vaccination schedule through social media and trainings. We continued our partnerships with The Arizona Partnership for Immunization (TAPI), the Maricopa County Department of Public Health, the American Cancer Society and the Arizona Department of Health Services to conduct six Continuing Education events in multiple counties. Over 250 health care professionals attended.

GVAHEC is delighted to include our health professions students in the HPV grant work. One UACOM Phoenix student is using the HPV grant program as the basis for their four year scholarly project. An AT Still Arizona School of Dentistry & Oral Health student prepared materials and conducted informational sessions on oral cancer and HPV geared towards health professionals.

#### HOSA and Health Career clubs

GVAHEC is committed to promoting health careers among high school students through collaboration with AzHOSA and other programs in our region. GVAHEC sent staff and interns to judge the competition at the AzHOSA Health Leadership Conference in Tucson this year.

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## GVAHEC

Continued from page 33



Combs High School HOSA club student Annessa Nino, with her HOSA International Leadership Conference award

**Combs High School**  
Through the combined efforts of GVAHEC and Susan C. Belshe RN, BSN, MEd and Nursing Assistant Coordinator/Instructor at Combs High School, the HOSA club and nursing assistant program grew by leaps and bounds this year to a total of 60 students. GVAHEC continued to coordinate Saturday skills labs to prepare the students for their certification exam. Students continued their prior year pass rates of 100% on the CNA knowledge exam and over 90% on the CNA skills exam.

GVAHEC sponsored three members of the Combs High

School HOSA club to attend their first AzHOSA Health Leadership Conference in Tucson. Two club members placed in the top three in their categories and GVAHEC funded one student's trip to Orlando, FL to compete at the HOSA International Leadership Conference where she placed 5th in the Health Career Photography category.

### Bioscience High School

Desiring to make a difference at their school, GVAHEC supported members of the Bioscience High School Teen Nutrition club who conducted weekly health focused nutrition classes for their peers. GVAHEC provided funds for cooking supplies and GVAHEC staff and dietetic interns provided guidance and feedback on the student-developed curriculum. The program culminated in a GVAHEC arranged field trip to



Combs High School nursing assistant student practicing at the Saturday skills lab.

Arizona State University's School of Nutrition cooking lab where students engaged in a hands-on cooking class from ASU Chef Kent.

### Hoop of Learning

GVAHEC partnered with Chandler Community College's Hoop of Learning Program which is designed to encourage, enable, and create the conditions that empower American Indian students to complete high school and transition successfully to higher education. GVAHEC supported Hoop of learning by providing student stipends, hosting lunch and conducting a health class and activity led by GVAHEC nutrition interns.

### Health Professions Programs

This past year GVAHEC provided more than 50 interns from many health disciplines with meaningful community experiences focusing on rural and underserved populations. A few highlights provided below.

#### Oral Health

AT Still Arizona School of Dentistry and Oral Health (ASDOH) students received valuable community clinical experience working with underserved populations at the Dental Outreach Rural Arizona (DORA) clinic located at the Center in Apache Junction. ASDOH dual degree DMD and MPH students completed community internships with GVAHEC where they participated in IPE lunch and learns with other health professions students at the Wesley Clinic, developed HPV and oral cancer education, attended Arizona Oral Health Steering Committee meetings and assisted with planning the Arizona Oral Health Summit held in May.



GVAHEC dietetic intern Paige Traw conducting a meal planning activity.

#### Nutrition

Dietetic interns continue to be a large part of our community based internship program. Dietetic interns from the Iowa State University distance program, Maricopa County Department of Public Health, Arizona State University School of Nutrition and Health Promotion dietetic internship program engaged in nutrition education at senior centers, foodbanks, resource centers, elementary schools and high schools. Nutrition

students created and evaluated curriculum beginning with needs assessments to establishing learning objectives to measuring learning outcomes.

*Pharmacy*

Midwestern University PharmD students completed an eight week community rotation during the spring and fall semesters at the Lifebridge Phoenix campus where they interact with a medically underserved urban community. In 2016-2017, the PharmD students assisted with the Walgreens mobile flu shot clinic, received HPV vaccination education and conducted community immunization education.

*Poverty Simulation*

GVAHEC partnered with MEZCOPH to conduct an IPE Poverty Simulation exercise at the UA Phoenix campus. Poverty Simulation is an interactive experience designed to help participants/students understand what it might be like to live in poverty and to sensitize participants to the realities faced by low-income families. Over 50 students and staff participated including students from UA MEZCOPH, COM, COP, CON and GVAHEC health professions interns.

*City of Phoenix Senior Centers*

GVAHEC health professions interns from public health, nutrition and pharmacy conducted health and wellness classes for members of the Helen Drake and Sunny Slope Senior Centers in Phoenix. GVAHEC interns also participated in community health fairs at City of Phoenix senior centers.

*Healthy Harvest*

Held monthly at the Center in Apache Junction, Healthy Harvest distributes produce and other food items provided by United Food Bank to food insecure East Valley residents. In addition to packaging and handing out food, interns conduct community needs assessments and provide healthy recipes and information to the participants.

*Central Arizona College Community Health Worker Certificate program graduating class and supporters.*



*GVAHEC interns working with Resource Navigator Andrea Yopez at the Center in Apache Junction*

**Continuing Education**

This year GVAHEC provided continuing education for over 2000 participants including physicians, nurse practitioners, nurses, physician assistants, social workers and certified health education specialists. Conferences and events included the Health Equity conference, Embracing Change Clinical Research conference, the Arizona Coalition for Military Families conference, Pediatric Feeding Conference: Creating Order for Pediatric Feeding Disorders, The Arizona Partnership for Immunization trainings and many other events.

Another year has flown by as we continue to innovate and grow our programs and strengthen our partnerships in an effort to improve the health outcomes for all Arizonans. We believe our programs serve a vital role in the advancement of the health care workforce pipeline and we pride ourselves in providing health professions students with meaningful engagement with rural and underserved communities so that they may better serve them in the future.



# Regional Center Directors' Reports

## Northern Arizona Area Health Education Center (NAHEC) Activities

### Workforce Development Summary - NAHEC

Type of Program	Participation
Health Careers Preparation Participants	1,536
Health Professions Trainee Experiences	450
Continuing Education Health Professional Participants	3,788
Community Health Education Participants	13,468



**Sean Clendaniel, MPH**  
*Director, Northern Arizona Area Health Education Center, North Country HealthCare*

NAHEC/North Country HealthCare (NCHC) continues to have a positive impact on healthcare workforce development in our region. We have both maintained the programming NAHEC has developed over

the years and invested in new programs to further our mission and goals. This year, all five AHEC centers collaborated for the annual Future Health Leaders (FHL) camp at Northern Arizona University. The In-A-Box program expanded to Fredonia and we participated in NAU's second year of JUMP, the Journey for Underrepresented Medical Professionals. Eat for Life, our whole-foods plant-based (WFPB) nutrition program, completed its ninth class and has transitioned to a group medical appointment model. Girls on the Run began its sixth year under the NAHEC/NCHC umbrella and expanded to new schools in Kirkland, Payson, Cottonwood, and Flagstaff. We revised processes for our continuing education program and reached over 3,500 participants. The Family Medicine Residency Program (FMRP) is well on its way to implementation, with provisional accreditation expected in fall 2017 and the first year of residents expected in summer 2019. We graduated our seventh year of ATSU School of Osteopathic Medicine in Arizona (SOMA) students from the Flagstaff community campus, and five of our previous graduates are now practicing in the northern Arizona region. Here are a few program highlights from the past year:

#### Clinical Training

This year we facilitated 450 student rotations in the NAHEC region, many of which took place in the NCHC clinic network. The willingness and dedication of our amazing NCHC providers and the implementation of a standardized workflow for student recruitment, selection, and placement made this possible. The Health Professions Coordinator has worked tirelessly to onboard several new preceptors and this process will continue with new

providers who join the North Country family. Many providers have expressed the desire for more training on how to effectively teach students. In an effort to provide quality training, the NCHC/NAHEC Recruiter, Training and Development team, Deputy Chief Medical Officer, and NAHEC staff

began developing and implementing a comprehensive preceptor readiness program (preceptor training) that is embedded within existing

training and onboarding activities, as well as exploring stand-alone training through the UA. Beyond existing clinical training activities, NAHEC has prioritized programming for allied health professionals and is developing new partnerships with Dine College, Coconino Community College, and others to enhance Medical Assistant, Public Health, and Community Health Worker training. Finally, our interprofessional education (IPE) programs continue to expand and improve, and we plan to pilot an integrated multi-week didactic IPE experience in spring 2018.

#### Native American Community Expansion

This year we hired a new Special Projects Coordinator to focus on expanding and improving our reach in Native American communities within the NAHEC region. The Coordinator began working with the Indigenous Pride Health Workers (IPHW) summer program, which completed in July with five Native American students graduating from the eight-week program.



*Dr. Brandon Abbott (right), ATSU graduate, stands with three ATSU 3rd year medical students at the state capitol.*

IPHW has been in existence for over 15 years and students who have completed the program have returned to work with Hopi Health Care Center in a variety of allied health positions. Students participating in IPHW and with the summer program at Tuba City Regional Health Care Corporation also participated in assisting with a community based participatory research project carried about by a Dine College Summer Research Enhancement Program (SREP) student. The student gathered data on factors that may contribute to success in college, medical school and obtaining a health professions career. High school students participated by identifying eligible interviewees and carrying out interviews. The data was relayed back to the community via information sheet on tips for success in college. The Coordinator has also been developing new relationships with partners on the reservation for allied health programming and clinical training.

### Health Connections Pilot Program

The Health Partners Program, now in its third year at NAHEC/ NCHC, designed to decrease the impact of health disparities on the underserved populations in northern Arizona by providing them meaningful referrals to local community resources. NAU undergraduates staff the Health Partners referral desk, which is located in North Country's 4th Street clinic in Flagstaff. We are now developing Health Connections, an offshoot of Health Partners; which was designed in collaboration with the Coconino County Community Health Improvement Plan (CHIP) Access to Care Workgroup, a coalition of over 10 governmental and nonprofit organizations in the county. The aim of Health Connections is to broaden the referral model that Health Partners is currently using in order to make it adaptable for use by outside agencies. There are five agencies enrolled in the pilot, including NAU Campus Health Services and the Highlands Fire District. Pilot participants will have access to the Health Partners database, which contains more than 400 resources in 27 different



*Future Health Leaders, NAU, June 2017*



*CAVIAT students present the In-A-Box curriculum to 5th graders*

areas of need, and each individual is trained in its use prior to the start of the pilot. The Health Connections Pilot, slated to begin in October 2017, and will run until January 2018, at which point the data collected during the pilot is analyzed and improvements to the Health Connections Model will be implemented based upon the results.

### iCREATE: Innovative Collaborative Research Experience and Technical Education

iCREATE is a three-year National Science Foundation funded community engagement program. Northern Arizona University, Translational Genomics Research Institute (TGen) North, Flagstaff STEM City, the Coconino Association for Vocations, Industry and Technology (CAVIAT), Coconino County Public Health Services District, and NAHEC have joined to increase local students' motivation and interest in STEM learning and careers in order to positively affect the region's future STEM workforce. This two-semester long bioscience course engages students in an authentic problem, the spread of infectious disease. The course uses epidemiological problem-based learning to engage students in the study of bioscience and teach them to design and implement a data collection system to monitor the transmission of influenza. NAHEC/NCHC has participated in the community advisory council for the project, provided an influenza-like-illness (ILI) dataset for the students to use, and worked with the students on their projects. This program is specifically designed using evidence based teaching methods to build a bioscience workforce in northern Arizona through exposing students to a rigorous and engaging academic experience.

### Research and Informatics

This year the Program Manager for Research and Informatics began the process of developing a comprehensive data warehouse of NCHC clinical, business, and associated

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## NAHEC

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*A group of students at Future Health Leaders practice on a sim mannequin*

information. He has worked to overcome the challenges of data integration and the warehouse is set to be implemented this fall. He is also working with the Arizona Alliance for Community Health Centers (AACHC) to develop their new statewide data warehouse. These two projects will be used for internal and external research and quality improvement efforts. We also provided datasets to the iCREATE program at NAU and are in discussion with AT Still University on a project that will measure how clinical interventions may help reduce falls in the elderly. Finally, planning is in place for an internal research project to measure the effectiveness of text message reminders to Hepatitis C patients. The projects will contribute to practice transformation within the NAHEC/NCHC network and other healthcare institutions in the state.

### **North Country Professional and Leadership Development**

NCHC/NCHC is proud of some of our most impactful continuing education programs that support practice transformation through healthcare leadership development. The NCHC Aspiring Leaders Academy (ALA) is a five-month long leadership development program that offers practical tools and techniques to guide the process of leader development,

methods for identifying and overcoming barriers to change, and a final project benefitting North Country HealthCare's mission to create healthier communities, and just completed its third year. Its practical focus helps employees transfer leadership skills to their careers and to our northern Arizona communities. In the coming year we plan to offer the program to leaders at other Community Health Centers in the state of Arizona. NCHC also offers Advanced Tuition Reimbursement intended to assist our employees with their educational goals through continuing education grants. Those grants, in FY17 helped employees in the following ways: a Certified Mid-Wife received First Assist training allowing her to assist and bill for more procedures; two MBA students started their programs; one graduated with a Bachelor's in Public Health; one provider started a competitive MPH program; another provider took classes in the Neural Sciences; one employee is pursuing a Health Informatics bachelor's degree; and one employee received a Certificate in Professional Fundraising.

### **Project ECHO**

NAHEC's Telehealth Coordinator has long played a role in facilitating NCHC provider participation in Hepatitis C and Pain Management Project ECHO, a learning environment designed to broaden access to specialty healthcare and best practices to underserved populations. During the summer of 2017, participation in the University of New Mexico Endocrinology Project ECHO began. We arranged for a physician from the NCHC clinic in Lake Havasu City to complete an Endocrinology mini-residency at UMN in early August supported by NAHEC. We will also begin to participate in the UA's Rheumatology Project ECHO model in September and incorporating ECHO into student rotations.



*A CAVIAT student presents an In-A-Box curriculum to 5th graders.*



# Regional Center Directors' Reports

## Southeast Arizona Area Health Education Center (SEAHEC) Activities

### Workforce Development Summary - SEAHEC

Type of Program	Participation
Health Careers Preparation Participants	518
Health Professions Trainee Experiences	142
Continuing Education Health Professional Participants	763
Community Health Education Participants	1,333



**Gail Emrick, MPH**  
Executive Director, Southeast Arizona Area Health Education Center

#### Community Health Centers Partner with SEAHEC for Interprofessional Student Training

This year, the AZAHEC Program scope of work with regional AHEC centers, incorporated “the development of interprofessional experiential training models for preparing health science students to address unique, medically complex needs of rural, border underserved populations.” With a goal of allowing health professions students to discover the value of interprofessional learning and team practice, SEAHEC worked closely with UA RHPP faculty Jill de Zapien, Carlos Gonzalez, Elizabeth Hall-Lipsy and Christy Pacheco, to design a training approach. Then in partnership with two federally qualified health centers in its service area, Mariposa Community Health Center and Chiricahua Community Health Center, SEAHEC piloted Interprofessional Education (IPE) for the first time in spring 2017.

At Mariposa Community Health Center, the IP education led by Eladio Pereira, Chief Medical Officer supervised the medical and public health students for a 3-week rotation. The students participated in joint activities as well as individual rotation hours for the medical student and a community project for the public health student. Their IP learning included time in family medicine, pediatrics, pharmacy, dental, care coordination and community home visits.

Jennifer Albon, MD, Community Pediatrician & Pediatric Medical Education Coordinator at Chiricahua, led the IPE activities at Chiricahua with a team of public health and medical students, who participated in joint learning sessions, including pediatrics, care coordination, observation of the eligibility unit, integrated behavioral health, endocrine telemedicine and others. The 6 week long, IP rotation ended with a reflection and de-brief,

during which both students and practitioners commented on the value of the interprofessional rotation and contributed ideas on how to improve the model.

IP evaluations unanimously reported, “the team approach improves quality of care to patients/better patient care decisions”. As well, team members all “strongly agreed” that: “having to report observations to the team, helps team members better understand the work of other health professionals.” With these positive results and feedback, SEAHEC will continue to work with UA RHPP faculty and community health centers, to provide interprofessional training opportunities to our students to better prepare them and better serve our community members.

**SEAHEC survey results show that 96% of health professions students placed in SEAHEC service region intend to practice in a rural or other medically underserved area.**

#### SEAHEC Celebrates 25th year of Emergency Medical Services

On January 27th, 2017 SEAHEC and partner agencies held our 25th annual training conference for southeast Arizona’s Emergency Medical Service personnel at the Desert Diamond Casino in Pima County. The conference provided the latest information on pre-hospital care of patients with various emergencies unique to southeast Arizona. A variety of health professionals from several institutions presented cutting-edge information



Suzanne David

The Southeast Arizona’s Emergency Medical Services (EMS) community presented SEAHEC’s Assistant Director Suzanne David with the EMS on the Border Lifetime Achievement Award.

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## SEAHEC

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“Suzanne David has been an integral and steadfast pioneer and leader in SEAHEC’s efforts to strengthen EMS responders’ capacity and skills”, said SEAHEC Executive Director, Gail Emrick, jointly presented the award together with SEAHEC staff and Josh Gaither MD, Associate Director for Emergency Medicine at the University of Arizona’s College of Medicine.

### SEAHEC Summer Interns:

#### The Power of an Internship to Impact Community Health

SEAHEC has a rich history of utilizing interns on valuable community health endeavors. SEAHEC has collaborated with Mt. Sinai Medical Schools “Medical Students Making Impact” volunteer medical student association for almost ten years. During their spring break, medical students, focusing on global health, come to Nogales and participate in a week-long service learning and immersion focusing on border health. Through this relationship, SEAHEC’s Director Gail Emrick and Mt.



Left to Right: Intern Ashleigh Sharp, Columbia University, School of Public Health, Cassandra Shah Columbia University, School of Public Health, Gail Emrick, SEAHEC Executive Director, Intern Emeka Iloegbu, Icahn School of Medicine at Mount Sinai Public Health, Intern Nina Williams, Icahn School of Medicine at Mount Sinai Public Health, Neil Gago, SEAHEC Board President

Sinai Faculty Jonathan Ripp, MD shared experiences working with tribal communities to address health issues. Mt. Sinai and Columbia University School of Public Health had offered a

## SEAHEC and Public Health interns design Introduction to Public Health & Health Careers Course at Tohono O’odham Community College

By Nina Williams & Ashleigh Sharp, MPH student interns



Nina Williams, SEAHEC Public Health Intern, helped develop TOCC course.



For the first time ever, Tohono O’odham Community College is offering a Public Health and Health Careers course, initiating in August 2017. The course, taught by Rebecca Drummond, MA and is held twice a week for 16 weeks. There are ten public health topics and eight health career presentations planned, including six specific health professional educational pathways. The course includes guest presentations from health professionals at the Tohono O’odham Health & Human Services (TODHHS), including its hospitals and clinics, as well as from the Archie Hendricks Skilled Nursing Facility and Assisted Living Residence. These speakers will serve as role models to inspire students to become future health professionals for their community agencies. The course and guest speakers will also encourage that students explore possible future health career choices and research a variety of health professions.

The Introduction to Public Health & Health Careers course offered at TOCC has seven students enrolled to date, including a former SEAHEC Future Health Leaders health career club member, Myesha Lopez. She participated in the FHL club at Baboquivari High School for four years, as well as the Native Youth Summer Health Leaders camp for two years. This year is Myesha’s second year in college, and she enrolled in the Introduction to Public Health Course with hopes of studying emergency medicine. **“The public health class I am taking is going very well. I like that we are learning about a lot of different professions and not just one,”** explains Myesha after her first week in the new course.

Myesha Lopez, Introduction to Public Health student at TOCC.



Ashleigh Sharp, SEAHEC Public Health Intern, helped develop TOCC course and facilitate the summer camp.

public health summer course with a North Dakota Tribal College, Cankdeska Cikana. Learning from their experience, SEAHEC and Tohono O'odham Community College, have since initiated steps for development of a public health program here. As well as participating in community health projects, the interns experience included shared housing in a neighborhood near the UA Health Sciences Center. So, after long days working in community, the interns were able to share in cooking, relaxing and also travel. A culminating experience for them was a "road trip" to northern Arizona, including presenting at the Arizona Rural Health Conference AND touring the Grand Canyon.

This summer's intern experiences provide insight into the value of such experiences, both for communities and students. Working together with Mt. Sinai School of Medicine and Columbia University's Mailman School of Public Health, two teams of students arrived in southern Arizona.

SEAHEC interns worked in partnership with Tohono O'odham Community College (TOCC) and TODHHS to design and pilot

the course. During the summer, public health interns Ashleigh Sharp, of Columbia University, and Nina Williams, of Mt. Sinai, interned with SEAHEC for over 250 hours, compiling materials to create course content. The students then presented a variety of lectures to TODHHS staff, including managers, receiving feedback on course content and adapting the materials accordingly. Their experiences are described below.

Another project focused on conducting an environmental health assessment in a rural farmworker community in northern Cochise County. The assessment is part of an integrated health project known as Healthy Farms, Healthy Communities, founded in 2009 by SEAHEC and partners, with funding from the AZAHEC Program and Legacy Foundation, as well Arizona Community Foundation of Cochise. Since launching Cochise County's first farm based community health worker team in 2013, SEAHEC and the UA College of Public Health have worked with local residents to identify and address health disparities in this isolated rural community. (See below for interns' reflection on this project and their SEAHEC Experiences.)

### **Cassandra Shah Summer Internship 2017 Reflection**

I spent 6 weeks in Arizona this summer working with SEAHEC on an Environmental Health Assessment in a rural farmworker community, Winchester Heights, in Cochise County. The experience was a whirlwind of learning, meeting different people and county officials, and working in the community. My partner, Emeka, and I were able to start the EHA process during our time there, which was really exciting because it was an amazing project that will hopefully help empower the community with the information it provides. This experience opened my eyes to rural health issues, issues I would not have been able to experience if I had not left NYC for this internship. I truly believe I've gained a new perspective as a public health professional, and I think that this experience has helped make me a better public health professional. Not to mention, I have gained experience with working in communities and conducting environmental surveys, which have given me important skills for the future.

### **Emeka Iloegbu, Intern Mt. Sinai 2017 Reflection**

SEAHEC's approach to developing projects and initiatives to help farmworker families and the residents of Winchester Heights was both holistic, culturally appropriate and respectful on many levels. I personally am honored to have been chosen to work on this project with SEAHEC whose staff demonstrated a level of compassion, care and resilience I hope to consistently emulate in my own practice. I plan on seeing this project through the best that I can and continue to support SEAHEC in empowering the residents of Winchester Heights to advocate for the issues in their community. The greatest resource in a community are the people, therefore spending time training and educating them is the best investment toward a better future for them and the children of Winchester Heights.

Prior to arriving in Arizona, I knew the one important thing that I should incorporate into my preparation was to clear my mind of any preconceived notions and unrealistic expectations. I hoped that in doing so this would allow me to truly gain a new perspective about Winchester Heights and the challenges they face daily. This Environmental Health Assessment allowed me to get an up close and personal look at the challenges that exist in migrant communities. This project was the perfect fit for my area of focus in the Global Health track at Mount Sinai which is on refugee/migrant health and humanitarian systems. I have been truly enlightened about the possible future positions I can fill to serve this population including the direction I need to take in academia in order to acquire the knowledge and training needed. From this experience, I have decided to explore Doctor in Public Health programs focusing on Global Health. A major component of this project was acquiring data both primary and secondary, to highlight vital disparities worth addressing. As a Doctor in Public Health I would have an opportunity to utilize field research data to inform policy in a practical way and improve the systems migrants and refugees live under.



# Regional Center Directors' Reports

## Western Arizona Area Health Education Center (WAHEC) Activities

### Workforce Development Summary - WAHEC

Type of Program	Participation
Health Careers Preparation Participants	988
Health Professions Trainee Experiences	156
Continuing Education Health Professional Participants	785
Community Health Education Participants	43,822



**Elizabeth Arredondo, BA**  
*Director, Western Arizona Area Health Education Center*

Regional Center for Border Health, Inc (RCBH)/Western Arizona Area Health Education Center (WAHEC) is proud to provide a summary of 2016-2017 achievements.

#### College of Health Careers Clinical Practice

RCBH/WAHEC College of Health Careers is dedicated to establishing a pipeline for “Growing Our Own” health-care workforce in Western Arizona to address health-care workforce needs. The mission is to engage local health-care industries and address workforce needs in a medically underserved and health professional shortage area. RCBH/WAHEC and the College of Health Careers have Affiliation Agreements with local medical facilities, assisted living centers, restaurants, pharmacies and behavioral health agencies where students conduct their practicum experiences after completing required lecture hours. RCBH/WAHEC and the College of Health Careers have over 49 affiliation agreements with local organizations in Yuma, La Paz and Mohave Counties to place students to conduct clinical rotations in areas where medical professionals are needed. One hundred and fifty six (156) students completed clinical rotations during 2016-2017 and 15,423 hours of Clinical Field Experience. Two hundred and fifty (250) Students graduated from programs offered through College of The Health Careers.

#### Dental Hygienist Practice in Rural Communities

In effort to address the gaps in dental services RCBH collaborates with UnitedHealth Care Community Plan, San Luis Walk-In Clinic Inc and Yuma Dentistry 4 Kids. The goal is to integrate an Affiliated Practice Dental Hygienist as part of a primary care provider team, thus improving oral health outcomes in rural communities. This dental prevention pilot program provides dental hygiene services and education at the SLWIC by a licensed dental hygienist. Services include oral visual screenings, oral risk assessments, application of fluoride, patient/parental education

and proper referral. A total of 2,805 patients were seen since the inception of the program in December 2015 through July 2017.

#### WAHEC Youth Mental Health First Aid/ Adult Mental Health First Aid

RCBH/WAHEC began their partnership and collaboration with AmeriCorps National Community Service Network to deliver mental health awareness and prevention curriculums since program inception in October 2013. RCBH/WAHEC has sponsored four instructors in obtaining National Instructor Certification as Mental Health First Aid Facilitators. The course introduces common mental health challenges for youth, reviews typical adolescent development, and teaches a 5-step action plan for how to help young people in crisis situations. Instructors throughout Yuma, La Paz and Mojave Counties provide training to groups such as Public Safety, Higher Education, Military Families, Rural Audiences, and Older Adult Population.

#### HOSA State Leadership Conference

RCBH/WAHEC is a proud sponsor of Heath Occupation Students of America (HOSA) Clubs in Mohave, La Paz and Yuma Counties. A total of 363 members participated through HOSA Clubs during the 2016/2017 fiscal year. Three HOSA Clubs participated in the State Leadership Conference in Tucson, AZ on April 19, 2017. Both Kingman and Lake Havasu HOSA Clubs qualified to participate in the International Leadership Conference held in Orlando, Florida from June 21st to 24th, 2017.

#### Grand Opening in Yuma County

On September 9th, 2017 RCBH/WAHEC and San Luis Walk-In Clinic, Inc celebrated the Grand Opening of the Somerton Medical Complex and College of Health Careers facilities. This 32,000 square foot complex is located on 8.5 acres in Somerton, AZ. The two building complex will house College of Health Careers and a primary health clinic which will provide family medicine, pediatric, gynecological, and obstetric care. The vision is to create an interprofessional center for health professional training. Financed with an 8.8-million-dollar loan from the US department of Agriculture the complex will triple the number of medical consultations rooms previously available.

# AzAHEC Spotlight on Diversity

## Diversity and AzAHEC's Health Career Preparation Pipeline Programs

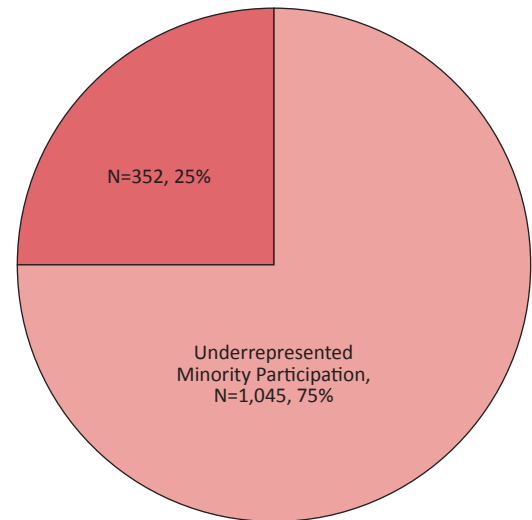
Inequalities in health are disproportionately experienced among groups of different racial, ethnic, and socioeconomic status. Diversity is synonymous with the residents of Arizona. Improving health disparities hinges upon improving the diversity of Arizona's health workforce. Our AzAHEC regional centers are on the frontline of improving the diversity of those interested in pursuing health careers. During 2016-17, nearly 7,600 individuals participated in health career preparation programs delivered by our regional centers. Using high school career clubs as a community-based proxy, 75% of health career preparation participants are from underrepresented ethnic/racial groups, thus reflecting the diversity of Arizona (see highlighted summary figures below). In the reports provided by each regional center, brief synopses describe the nature of these programs.

### A Selection of Health Career (K-12) Preparation Programs

- ▶ Antelope Union High School College Career Fair
- ▶ Arizona Rural Health Association Youth Leadership conference
- ▶ Boys & Girls Club Fall Festival 2016
- ▶ Career and Education EXPO
- ▶ Combs HS Stand alone- Field Trip
- ▶ Higher Education Program Freshman Orientation
- ▶ HOSA AZ Spring Leadership Conference
- ▶ Northern Gila County College & Career Fair
- ▶ Oral Hygiene
- ▶ Parent Teen conference
- ▶ Pathways into Health
- ▶ Pathways to College
- ▶ Pathways to Success
- ▶ Pharmacy Camp
- ▶ Summer Scrubs Nursing Camps
- ▶ STEMfest (Science, Technology, Engineering and Mathematics)
- ▶ Yavapai County Teen Maze
- ▶ Youth Spring Forum

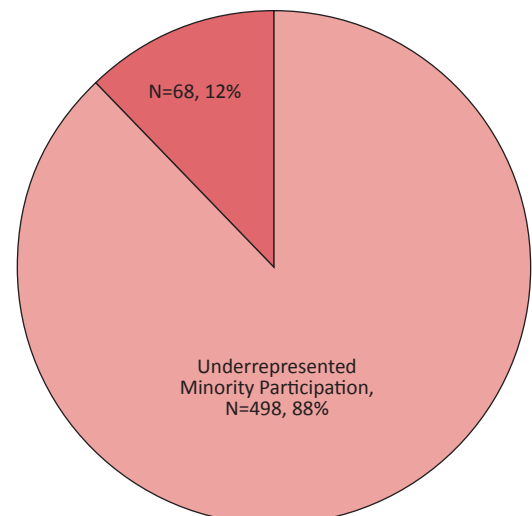
### Diversity of Students in Health Career Clubs throughout Arizona

**Total Clubs = 63; Total Students = 1,397**



### Diversity of Students in Health Career Clubs Arizona-Mexico Border Region

**Total Clubs = 16; Total Students = 566**

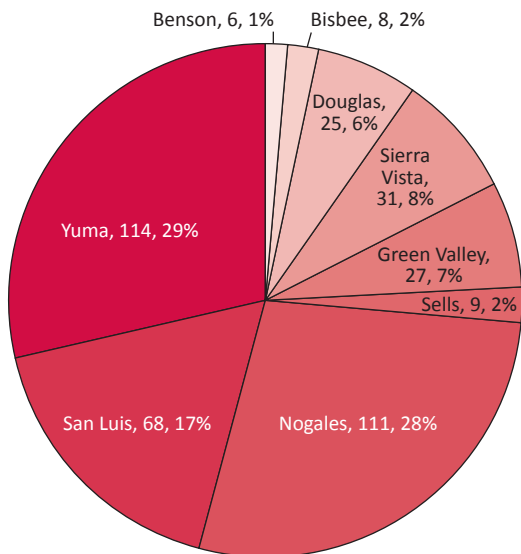


# AzAHEC Spotlight on the Border

## Health Professions Trainee Field Experiences in the U.S.-Mexico Border Region, FY 2018

Border health is complex—an intersection of local and international issues play a factor in high health disparities among border populations. The UA’s commitment to improving health at the border is long-standing, and for decades, two of our AzAHEC regional centers—SEAHEC and WAHEC—have supported extensive health education training programs, health promotion programs, and improved access to care for border residents. Health professions trainee education in border settings is important to assure a robust pipeline of health-care providers for the future. The following section highlights the FY 2018 health professions field experiences in Arizona communities within 60 miles of the U.S.-Mexico border.

### Health Professions Field Experiences in Arizona Communities within 60 Miles of the U.S.-Mexico Border, N=399



County	Community
Cochise	Benson
	Bisbee
	Douglas
	Sierra Vista
Pima	Green Valley
	Sells
Santa Cruz	Nogales
Yuma	San Luis
	Yuma

Field experiences were reported by the RHPPs at the UA, ASU and NAU; the UA College of Medicine at South Campus family medicine and internal medicine rural programs; the UA Zuckerman College of Public Health Phoenix program and the AzAHEC regional centers.

### Health Professions Field Experiences and Contact Hours by Discipline in Arizona Communities within 60 Miles of the U.S.-Mexico Border

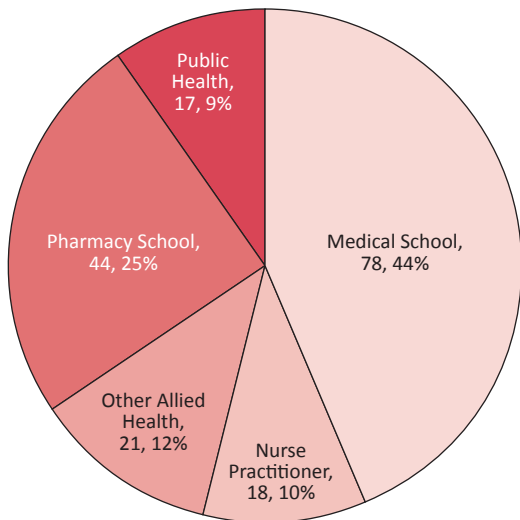
Academic Discipline/Program	Community	# Field Experiences	Contact Hours	Total Field Experiences	Total Contact Hours
Dentistry and Dental Hygiene	Nogales	4	368	4	368
	Green Valley	15	688	32	3,200
	Nogales	13	2,400		
San Luis	4	112			
Medical School	Benson	1	300	94	15,474
	Bisbee	7	1,530		
	Douglas	11	1,730		
	Green Valley	4	860		
	Nogales	30	2,738		
	San Luis	4	786		
	Sells	4	1,100		
	Sierra Vista	15	2,260		
	Yuma	18	4,170		
	Nurse Practitioner	Bisbee	1		
Green Valley		7	1,129		
Nogales		5	120		
San Luis		5	444		
Sierra Vista		3	639		
Yuma		3	359		
Nursing or Medical Assistant	San Luis	33	3,990	102	10,015
	Yuma	69	6,025		
Other Allied Health	Nogales	25	704	37	824
	San Luis	12	120		
Pharmacy School	Benson	4	880	48	8,310
	Green Valley	1	120		
	Nogales	12	1,230		
	San Luis	3	560		
	Sells	5	1,200		
	Sierra Vista	11	2,000		
	Yuma	12	2,320		
Physician Assistant	Benson	1	160	33	5,752
	Nogales	13	2,712		
	San Luis	5	760		
	Sierra Vista	2	320		
	Yuma	12	1,800		
Public Health	Douglas	14	630	17	708
	Nogales	3	78		
Registered Nurse, Nurse Anesthetist, or Nurse Midwife	San Luis	1	10	1	10
Social Work and Behavioral Health	Nogales	6	144	7	684
	San Luis	1	540		
<b>Grand Total</b>				<b>399</b>	<b>48,079</b>



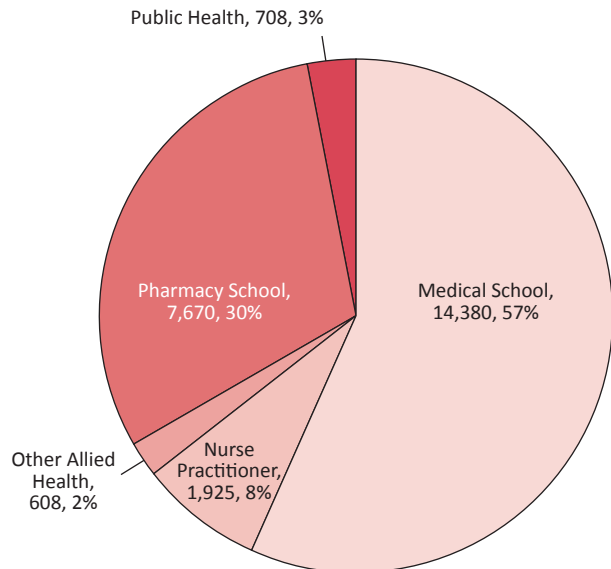
**UA Health Professions Field Experiences in Arizona Communities  
within 60 Miles of the U.S.-Mexico Border**

County	City	Academic Discipline/Program	# Field Experiences	Contact Hours	Total Field Experiences	Total Contact Hours
Cochise	Benson	Medical School	1	300	5	1,180
		Pharmacy School	4	880		
	Bisbee	Medical School	7	1,530	8	1,573
		Nurse Practitioner	1	43		
	Douglas	Medical School	11	1,730	25	2,360
		Public Health	14	630		
Sierra Vista		Medical School	15	2,260		
		Nurse Practitioner	3	639	29	4,899
		Pharmacy School	11	2,000		
Pima	Green Valley	Medical School	4	860	9	1,494
		Nurse Practitioner	4	514		
		Pharmacy School	1	120		
	Sells	Medical School	4	1,100	9	2,300
		Pharmacy School	5	1,200		
Santa Cruz	Nogales	Medical School	15	1,770	55	3,782
		Nurse Practitioner	4	96		
		Other Allied Health	21	608		
		Pharmacy School	12	1,230		
		Public Health	3	78		
Yuma	San Luis	Medical School	3	660	8	1,334
		Nurse Practitioner	3	274		
		Pharmacy School	2	400		
	Yuma	Medical School	18	4,170	30	6,369
		Nurse Practitioner	3	359		
		Pharmacy School	9	1,840		
<b>TOTAL</b>					<b>178</b>	<b>25,291</b>

**UA Health Professions Field Experiences by Discipline in Arizona Communities within 60 Miles of the U.S.-Mexico Border, N=178**



**UA Health Professions Field Experience Contact Hours by Discipline in Arizona Communities within 60 Miles of the U.S.-Mexico Border, Total=25,291 hours**



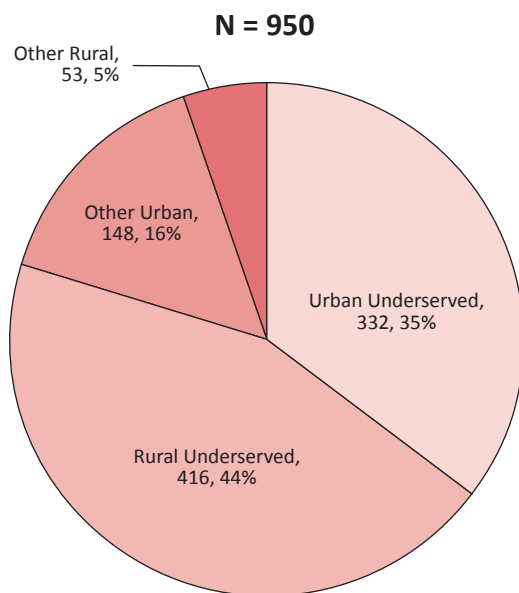
# AzAHEC Spotlight on Community-Based Training

## Field Experience Sites Training UA Students and Residents

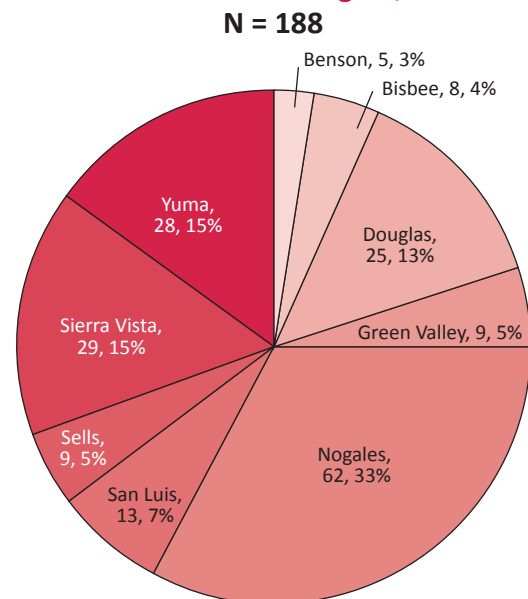
The training of our students and residents in rural and urban medically-underserved communities is made possible by the generosity and volunteered time of health-care providers throughout the state. AzAHEC and its supported programs are deeply grateful for this dedicated network of preceptors who are integral partners in preparing students and residents to practice culturally-competent, patient-centered, team-based care.

The following charts and table highlight the training and site types of students from UA RHPP colleges and residents from the UA College of Medicine at South Campus family and internal medicine program during 2016-2017. In total, students and residents trained at 222 community-based sites throughout the state. Notably, 44% of field experiences occurred in rural underserved communities and 20% within 60 miles of the U.S.-Mexico border.

**UA Student and Resident Field Experiences  
by Site Setting, FY 2016-2017**



**UA Student and Resident Field Experiences  
in the U.S.-Mexico Border Region, FY 2016-2017**



*Analysis uses the rural definition according to ARS § 15-1754. Underserved characterization is based on formal medically underserved community designations by the Arizona state or federal government. Percentages may not sum to 100 due to rounding.*

**UA Student and Resident Field Experiences by Unique Site Types for Underserved Practice, FY 2016-2017**

Description	# Training Sites	# Field Experiences	Total Training Hours
Critical Access Hospitals	3	15	2,586
Federally Qualified Health Centers (FQHCs) and Look-Alikes	27	171	32,832
Indian Health Service (IHS) and tribal-affiliated sites <sup>1</sup>	12	74	14,406
Rural Health Clinics	3	17	3,242

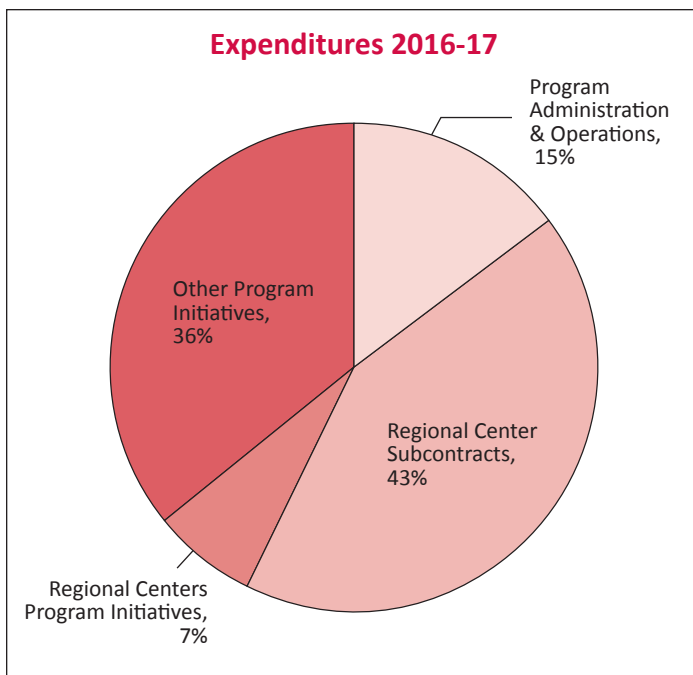
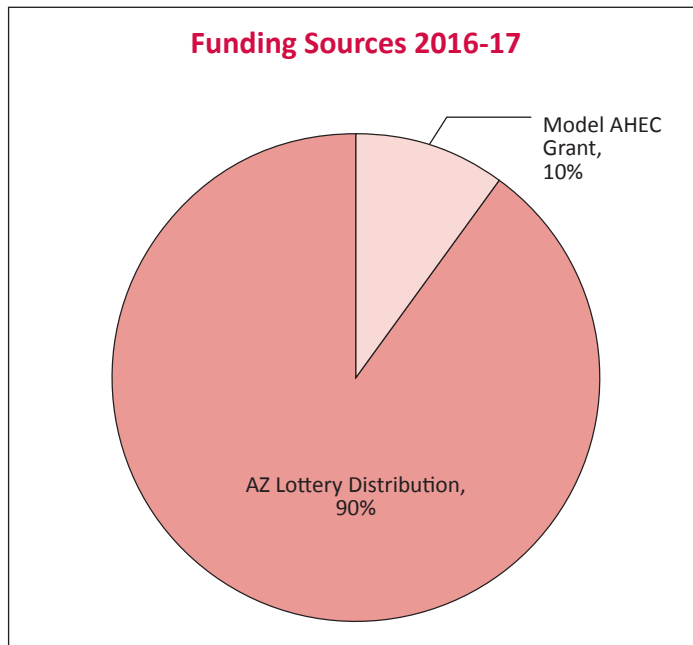
<sup>1</sup>IHS and tribal-affiliated sites that are FQHCs or critical access hospitals are included in both applicable totals.

# Financial Review: Fiscal Year 2016-17

The Arizona AHEC Program (AzaAHEC) receives funding from state and federal sources. Federal funding was provided by the U.S. Department of Health and Human Services, Health Resources Services Administration (HRSA), Bureau of Health Professions through a Model AHEC grant. The Model AHEC grant requires matching non-federal funds. Funding from the Arizona State Lottery is allocated to the Arizona AHEC Program (as per ARS § 5-572C) through the Arizona Board of Regents (ABOR).

Expenditures of the Arizona AHEC Program during fiscal year 2016-17 included Program Administration & Operations, Regional AHEC Centers – Base Subcontracts, Regional AHEC Centers – Program Initiatives, and Other Program Initiatives.

The AHEC regional centers receive both federal and state funding allocations via annual subcontracts administered through the AzaAHEC program office. Additional state lottery funding was issued to the regional centers during FY 2016-17 to support program initiatives other than the annual base subcontracts. AzaAHEC also provides support for Other Program Initiatives, such as the Rural Health Professions Program (RHPP).



## AzaAHEC Employment Data 2016-17

Arizona AHEC Programs employ 92 people statewide, operating as important economic forces in their communities.

	FTE's	"Person Count"
Program Office	8.08	15
EAHEC	2.75	4
GVAHEC	5.1	6
NAHEC	5.34	8
SEAHEC	5.7	6
WAHEC	4.95	6
RHPP COPH	0.6694	9
RHPP COM-TUS	0.5	2
RHPP COP	0.3	1
RHPP COM-PHX	0.33	2
RHPP CON	0.367	2
RHPP ASU	0.2	2
RHPP NAU	0.17	2
MCHC Faculty/Preceptor Development	0.02	2
North Country Residency	1.5	2
South Campus Residencies FY17	0.29525	4
Master of Public Health - Phoenix	0.4	2
BLAISER	1	2
Med-Start	0.89	12
CTS	0	0
AzaAHEC Grants Programs	0.05	1
North Country Research Program	1	1
North Country Outreach Program	1	1
<b>Total</b>	<b>40.61165</b>	<b>92</b>



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**ARIZONA AHEC Program Regional Centers 2016–17**

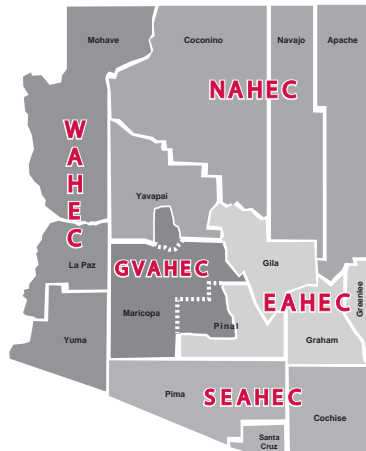
**Eastern Arizona AHEC (EAHEC)**  
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The Arizona AHEC Program is administered through the University of Arizona and is responsible to the Senior Vice President for Health Sciences. The University of Arizona Health Sciences includes the UA College of Medicine – Tucson, UA College of Medicine – Phoenix, UA College of Nursing, UA College of Pharmacy, and the UA Mel and Enid Zuckerman College of Public Health.

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