



ANNUAL *report* 2014

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The AHEC program was developed by Congress in 1971 and there are 56 AHEC programs and 236 centers in 47 states. 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 healthcare, particularly primary and preventive care, by improving the supply and distribution of healthcare professionals through academic-community educational partnerships in rural and urban medically underserved areas.

Program Highlights

AzAHEC System Supported (through June 30, 2014):

The Arizona Area Health Education Centers (AzAHEC) Program supported 1,174 health professions trainees in more than 343,000 hours of community-based training in rural and urban underserved areas of Arizona. The following overview provides the number of trainees by program and discipline:

- ▶ 39 family medicine and internal medicine residents from University of Arizona College of Medicine – South Campus residency programs
- ▶ 409 health professions students from the disciplines of medicine, nursing, pharmacy and public health who participated in the Arizona Rural Health Professions Program (RHPP) at the University of Arizona (UA), Arizona State University (ASU) and Northern Arizona University (NAU)
 - 183 medical students from the UA College of Medicine – Phoenix and the UA College of Medicine – Tucson
 - 87 nurse practitioner students from UA, ASU and NAU
 - 53 pharmacy students from the UA College of Pharmacy
 - 86 public health students from the UA Mel and Enid Zuckerman College of Public Health
- ▶ 726 health professions students from AHEC-center-based, non-UA health professions programs

<ul style="list-style-type: none"> • 66 medical students • 6 nurse practitioner students • 185 registered nursing students • 5 nurse anesthetist students • 79 physician assistant students • 5 physical therapy students • 27 pharmacy students • 33 dental students • 7 dental hygiene students 	<ul style="list-style-type: none"> • 92 public health students • 17 behavioral health/social work students • 145 nurse assistant/patient care associate students • 24 clinical laboratory students • 35 other allied health students
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Arizona AHEC is a sponsored project of the University of Arizona. The AHEC Program office is located at the University of Arizona Health Sciences Center (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

As the Director of the Arizona Area Health Education Centers (AHEC) Program, I am pleased to present the 2014 Annual Report. This report highlights the accomplishments of the Arizona AHEC program during the past year and provides snapshots of how our academic-community partnerships enhance health professions workforce development and improve access to care among Arizona's rural and urban underserved residents. Our partners are foundational for the many successes of the AHEC program. Brief summaries of selected programs are provided that demonstrate our many success stories.

The Arizona AHEC program underwent a strategic visioning process in 2010–2011 and developed a strategic vision for 2011 to 2016 that outlined a broad educational development

agenda to guide specific program plans. Our strategic vision focuses on developing integrated, sustainable statewide health workforce education programs with emphasis on primary care and increasing access in Arizona's rural and underserved communities by improving the supply, quality, diversity and distribution of the health workforce. We continued to implement the strategic vision in 2014 through collaboration with the five statewide Arizona AHEC regional centers, the University of Arizona Colleges of Medicine – Tucson and Phoenix, the Colleges of Nursing, Pharmacy and Mel and Enid Zuckerman College of Public Health as well as other statewide organizations.

Key highlights in this report reflect programs supported by AzaAHEC. First, our regional AHEC centers continue to demonstrate innovative health workforce development programs as is shown in their reports. Our academic partners, including the University of Arizona Colleges of Medicine – Tucson and Phoenix, and the Colleges of Nursing, Pharmacy and UA Zuckerman College of Public Health as well as Arizona State University College of Nursing & Health Innovation and Northern Arizona University School of Nursing, provide highlights of supported programs including how they are meeting and exceeding the expectations of the Arizona Rural Health Professions Program (RHPP).

With respect to graduate medical education (GME), Julia Hardeman, MD, Associate Program Director of the University of Arizona College of Medicine at South Campus Family Medicine Residency program, provides an update on the rural rotations for South Campus primary care residents. Sean Clendaniel, Director of the Northern Arizona AHEC (NAHEC), provides an update on the community-based family practice residency as well. Their ACGME sponsoring institution has been submitted and their application will be reviewed in January 2015. This program has taken years to evolve and is congruent with teaching health centers (THCs) as authorized under the health reform legislation to expand or establish new primary care residency programs. THCs are primary care residency programs that are housed in community-based ambulatory care centers (unlike traditional hospital-based residency programs). NAHEC/North Country HealthCare is a community health center and strong advocate of primary care program development.

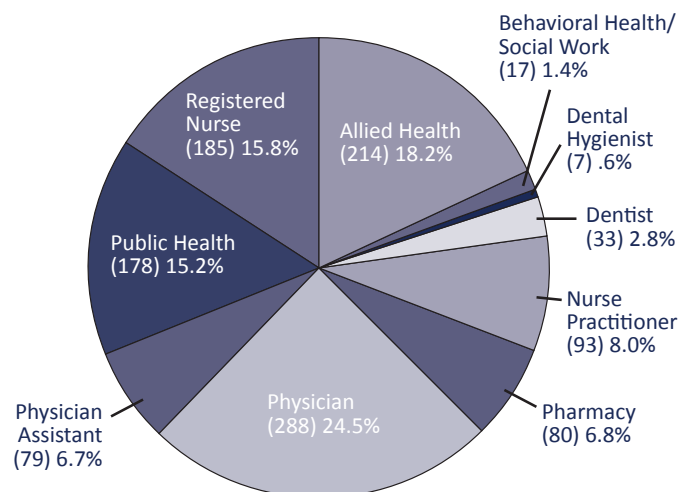
AzaAHEC supports students on many levels and multiple snapshots are provided throughout the report. As examples, AzaAHEC supports the UA Mel and Enid Zuckerman College of Public Health Master of Public Health Program in Phoenix, and we support the UA College of Nursing's Masters Entry into the Profession of Nursing program in Phoenix as well.

Through our intramural research grant program students, faculty and communities benefit. This year's report includes outcomes of studies by recipients of AzaAHEC small research grants.

AzaAHEC Health Professions Trainees by Discipline

Inclusive of UA College of Medicine – South Campus medical residents, Rural Health Professions Program (RHPP) trainees and AHEC regional-center-based health professions trainees from other academic institutions

Period ending 6/30/14, N=1,174



AzAHEC has supported studies about the rural workforce, and this year understanding the role of non-physician primary care providers in Arizona is provided in a study brief about the supply of physician assistants, nurse practitioners and certified midwives.

The annual financial report demonstrates continued strong state support that the AHEC program receives to offer programs throughout Arizona and to meet federal grant-matching requirements. Our AHEC regional centers and supported

projects also employ or provide salary support for many people statewide. As a result, our programs also continue to have an important economic force in the communities we serve.

The Arizona AHEC program is proud of our accomplishments in 2014. We are committed to improving access to health care for Arizona's residents through high-quality, innovative workforce development strategies. I am pleased to present this report for your review.

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) articles 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.

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 2013–2014

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 AzAHEC-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 other 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 American (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.

Financial Review: Fiscal Year 2014

As in years past, the Arizona AHEC Program received funds from state and federal sources (Chart F1, Table F1). The fiscal year dates vary by funding source. The federal fiscal year is September 1 to August 31, and the state fiscal year is July 1 to June 30. The total federal amount of \$508,350 came from the U.S. Department of Health and Human Services, Health Resources Services Administration, Bureau of Health Professions Model AHEC grant award. This federal award requires the program's regional centers to receive 75 percent of the funds with the remaining 25 percent going as support for the state program. Continuation of the Model AHEC award is contingent upon matching non-federal funds.

State funds are allotted to the Arizona AHEC Program through the Arizona State Lottery (per ARS 5-572C). State funding for fiscal year (FY) 2014 amounted to \$15,359,683. These funds included a beginning FY 2014 balance of \$11,101,483 and \$4,258,200 received after FY 2013 closed. This represents the FY 2014 allotment from the Arizona Lottery. Total funds carried forward into FY 2015 are \$11,238,123. The program's regional centers receive their annually allotted funds via subcontracts administered through the program's business office at the University of Arizona (project period: Sep. 1–Aug. 31). The program's state office costs are supported by federal and state dollars (see Tables F2 & F3).

Table F1. FY 2014 Arizona AHEC Program: Federal and State Funding Allocations

Funding Source	Amount
Federal Funds	
Federal Model AHEC Grant	\$508,350
State Funds	
Lottery Funds <i>(includes FY 2013 carry forward)</i>	<u>15,359,683</u>
Total State and Federal-allocated operating funds	\$15,868,033

Chart F1. FY 2014 Arizona AHEC Program: Operating Funds

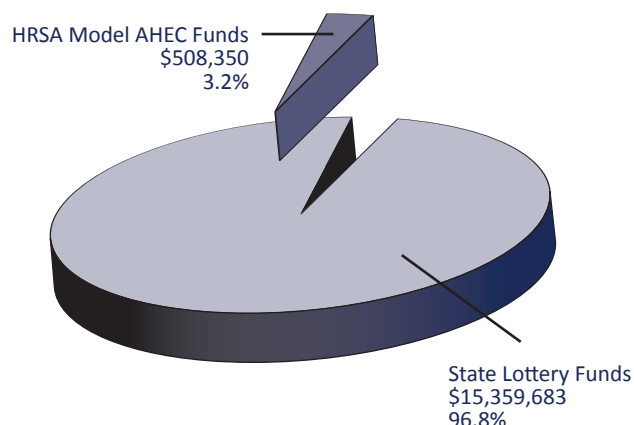


Table F2. FY 2014 Arizona AHEC Program: Federal and State Funds

Funding Source	Amount
Federal Funds	\$ 508,350
FY 2014 Lottery Funds <i>(includes FY 2013 carry forward)</i>	<u>15,359,683</u>
Total	\$15,868,033
Expenditures	
Program Administration & Operations	\$ 628,235
Five Regional AHEC Centers	2,532,750
Statewide Programming Support	<u>1,468,925</u>
Total	\$4,629,910
Total Carry forward of state funds to FY 2015	\$11,238,123

Table F3. FY 2014 Arizona AHEC Program Allocations: Allocations to the Five Regional Centers

Funding Source	Eastern Arizona AHEC	Greater Valley AHEC	Northern Arizona AHEC	Southeast Arizona AHEC	Western Arizona AHEC
Federal					
Model AHEC	\$76,252	\$76,252	\$76,252	\$76,252	\$76,252
State	\$430,298	\$430,298	\$430,298	\$430,298	\$430,298
Total	\$506,550	\$506,550	\$506,550	\$506,550	\$506,550

* FY14 Subcontract award period is from 9/01/13–8/31/14.

Arizona Rural Health Professions Program (RHPP)

The Arizona Rural Health Professions Program (RHPP) is a core program supported by AzaAHEC annually 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 ten nurse practitioner (NP) students (UA=4 NP students, ASU=4 NP students and NAU=2 NP students), fifteen medical students from the UA College of Medicine and four pharmacy students from the UA College of Pharmacy to participate in the RHPP. The RHPP is voluntary for student participation but mandatory for the three participating state universities.

The RHPP is central to the mission of AzaAHEC to help prepare the health workforce for rural and urban underserved populations. In FY 2007 due to increases in medical student enrollments at the UA College of Medicine and the new medical school in Phoenix, coupled with Arizona's significant primary care provider shortage that is felt more acutely in underserved communities, AzaAHEC initiated financial support of the RHPP to the participating schools with the goal of doubling the numbers of students who participate in the program. While the RHPP by history focuses on rural Arizona communities, AzaAHEC also supports clinical rotations in Arizona's urban medically underserved communities. Public health training was not included in the Arizona statute; however, AzaAHEC began supporting a public health RHPP at the UA in 2007.

In 2013–2014, 409 health professions students from the UA, ASU and NAU had an RHPP training experience. The following section provides a brief report from each participating RHPP.

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

Carlos R. Gonzales, MD, FAAFP

RHPP Director

Assistant Dean, Medical Student Education

Associate Professor, Family and Community Medicine

The UA College of Medicine – Tucson RHPP matches medical students with physicians working in small towns throughout Arizona. Through rural community-based clinical education, the continued goals of our RHPP include:

- ▶ Supporting and nurturing medical students' interest in careers in rural settings
- ▶ Providing opportunities for students to experience both the challenges and gratification of rural medical practice
- ▶ Enabling a mentoring relationship between students and rural practitioners
- ▶ Encouraging students to enter primary care careers
- ▶ Establishing working and learning partnerships among rural physicians, UA College of Medicine faculty and students

Fundamentally, the primary objective of RHPP is that students will have a rural training experience. We strive to place each

student participant so that she/he will have a longitudinal experience in the same rural location with the same preceptor, patients and community. By doing so, the student will get to know the community, its benefits and attractions, as well as its social problems and medical issues, while developing clinical skills.

In 2013–2014 with AzaAHEC support, the College of Medicine – Tucson provided opportunities for medical students in their required third-year clerkships (clinical rotations during medical school) and some fourth-year clinical rotations. The years of establishing relationships with rural physicians allowed us to provide many more third-year medical students with clerkship sites all over the state. The College of Medicine – Tucson currently places students in rural sites for the following third-year clerkships: family medicine (six weeks), internal medicine (four weeks outpatient), pediatrics (three weeks outpatient), obstetrics and gynecology (six weeks) and general surgery (three weeks). Fourth-year students may complete clinical rotations in rural sites for the following disciplines: family medicine (four to six weeks), internal medicine (two to four weeks outpatient), pediatrics (two to four weeks outpatient), obstetrics and gynecology (two to four weeks), general surgery (two to four weeks) and emergency medicine (two to four weeks).

The expansion to support students in rural clerkships has allowed RHPP students to spend significantly more time in rural

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UA College of Medicine – Tucson RHPP

Continued from page 5

communities in a variety of medical specialties. Since RHPP is a competitive program, this expansion has also allowed us to support non-RHPP students who are interested in experiencing rural medicine. We now have several non-RHPP students who are interested in practicing in smaller, rural communities specifically because of their rural rotation experiences. In a survey of spring 2014 graduates who participated in at least one rural or urban underserved rotation, 91% intend to pursue further training and/or seek employment in a medically underserved community. Fifty-one percent of graduates intend to pursue primary care, and 67% intend to remain in Arizona for residency and/or future employment. Responses were received from 45 RHPP and non-RHPP students.

We have placed more students in rural and urban underserved communities and are especially proud of our increased clerkship community experiences in the rural communities of Arizona. To illustrate, we placed 154 medical students in rotations that amounted to 182 separate rotations and a total of 810 weeks in rural and urban underserved areas. It should be noted that some

of these medical students were from the UA College of Medicine – Phoenix, and their rural and urban underserved rotations were supported by the UA College of Medicine – Tucson’s program. We are anticipating another active year as our rural clinical clerkships have gained in popularity.

Dr. Carlos Gonzales, a faculty member from the Department of Family and Community Medicine at the UA College of Medicine – Tucson, now serves as the RHPP director for the UA College of Medicine – Tucson. He brings 21 years of experience working with the underserved and in rural communities; eight years at the El Rio Neighborhood Health Center in Tucson and 13 years as a rural/frontier family physician in Patagonia, AZ at the satellite clinic of the Mariposa Community Health Center of Nogales, AZ. In the past, he participated in the development of new rural sites for the Department of Family and Community Medicine. In assuming the directorship of the RHPP, he will expand his responsibilities to develop and maintain clinical experiences for medical students in all of the above listed disciplines. He will also assure that each practice is visited annually, an important part of our accreditation.

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

Year	Total Graduates ¹	All Grads Entering Primary Care Residency		Total RHPP Graduates	RHPP Grads Entering Primary Care Residency ²		RHPP Grads Entering Residency in AZ		Current Activity of RHPP Grads ³			
		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%	3	2	4	8
2010	106	63	59%	12	10	83%	8	67%	4	2	3	1
2011	100	50	50%	12	10	83%	5	42%	12	Follow up in progress		
2012	141	80	57%	15	9	60%	5	33%	15			
2013	157	79	50%	20	15	75%	8	40%	20			
2014	146	90	62%	18	12	67%	7	39%	18			

¹Graduates include COM – Phoenix beginning in 2011. COM – Phoenix students will show under Tucson graduates until 2017 (reflects time of COM – Phoenix’s accreditation and admission of classes separate from COM – Tucson).

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

³Residency lengths vary from three to seven years.

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

Jonathan Cartsonis, MD
RHPP Director

As a new program, the UA College of Medicine – Phoenix RHPP has been preparing a growing array of clinical rotations in both rural and urban underserved settings. Our goal is to develop mission-driven educational experiences that support medical students, ultimately preparing them to handle the challenges of underserved medical practice. In 2013–2014, more than 80% of our students completed the required family medicine clerkship in an urban or rural underserved setting. As these students mature into licensed physicians, we anticipate greater numbers will choose underserved practice as a result of this clerkship training in underserved settings. We feel confident that with our mission and the support of AzaHEC, we can continue to graduate top-notch committed and compassionate physicians.

Rural health disparities are a perennial problem and of primary concern to the College of Medicine – Phoenix RHPP. Rural Arizona residents, when compared to urban counterparts, are poorer, more likely to be uninsured and more likely to suffer from chronic disease. Compounding the problem is the shortage of rural health professionals. Our RHPP addresses physician shortage at the level of medical education. Our mission is to encourage interest in rural medical practice through medical student education and rural learning experience. We help our students understand the rewards of rural practice, appreciate the unique challenges faced by rural populations and ultimately return to practice in a rural setting. Achieving these goals will go a long way toward addressing health disparities in Arizona.

We have developed a Rural Health Certificate of Distinction, which will be awarded upon graduation to students who successfully complete the RHPP requirements. Especially encouraged to participate are students who grew up in a rural setting, expressed an interest in primary care and plan return to a rural setting. All of these factors predict a higher likelihood for future rural medical practice. In fall 2013, we accepted our first cohort of students into the certificate program. During the academic year, students participated in a rural health seminar series; topics included geriatric care in rural settings, introduction to the Affordable Care Act and its impact on rural health, public health considerations in rural Arizona and rural medical practice. RHPP students completed their first community-based clinical rotations in rural sites in Coconino, Yavapai and Yuma counties.

We are excited to report that the 2014–2015 academic year already has increased student interest in rural sites for the family and community medicine clerkship. Our rural program development and the early success we are observing could not be possible without the continued support of AzaHEC.

UA Medical Students from Arizona Committed to Rural Health

Hailing from Safford, Arizona, Jordan Marble is a fourth-year medical student at the UA College of Medicine – Phoenix. Jordan would like to practice general surgery in rural or urban underserved Arizona after he graduates and completes his residency. Jordan has participated in the RHPP, returning to Safford for his clinical rotations. Reflecting on his first RHPP rotation experience, Jordan said:



Jordan B. Marble,
MD candidate 2015

“The rotation allowed me to experience life as a rural physician early in my medical school experience, and I realized that I wanted to work in a similar field serving a similar population in rural areas. After my clinical experience in Safford, I found that studying medicine became more relevant and I found it easier to interview patients.”

Jordan has valued the RHPP, both for the first-hand experience practicing in rural Arizona and for the positive influence of the dedicated and passionate rural physicians with whom he has worked.



Callie Davies is a fourth-year medical student at the UA College of Medicine – Tucson. She grew up in Ahwatukee, Arizona. In 2009, she worked in refugee camps in Uganda between Sudan and the Democratic Republic of the Congo. From that experience, she knew she wanted to work in a non-traditional medical setting in the future. In medical school, she became interested in rural health in the U.S. and was accepted into the RHPP. Reflecting on her experience in the RHPP, Callie said:



Callie Davies,
MD candidate
2015

“RHPP was essential to my educational experience in medical school. It allowed me to experience rural in many different settings: along the border, Indian Health Service, in underprivileged and privileged rural locations. This gave me a broad taste for areas I could work in and eclectic cultures to experience. Working in rural locations truly opened my eyes to the differences in health care availabilities and bulldozed any prejudices I previously associated with an underprivileged patient. I began to understand the struggles a patient might have in maintaining a healthy lifestyle with a limited budget and the impact this has on their wellbeing. This broke any judgmental ideas and turned them into understanding thoughts on how to improve what we currently have.”

Callie has completed clinical rotations in Douglas, the White Mountains, Tuba City, Sedona and Prescott. After she graduates, she would like to do her residency at the University of Arizona Medical Center – University Campus or South Campus. After residency, she would like to practice in a rural area of northern Arizona.

The University of Arizona College of Nursing Rural Health Professions Program

Christy Pacheco, DNP, FNP-BC

RHPP Director

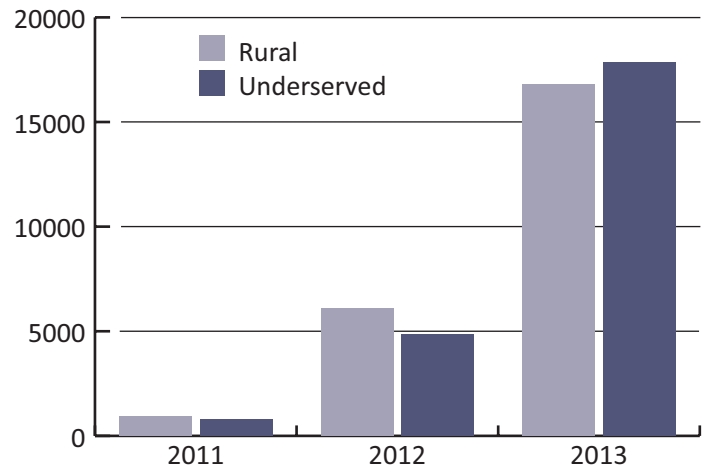
Clinical Assistant Professor

In August 2013, the UA College of Nursing RHPP welcomed Christy Pacheco, DNP, FNP-BC as the new director. Dr. Pacheco has been providing primary care services to rural and medically underserved populations in northern Arizona for 15 years, including six years living and working at a rural Indian Health Service site on the Navajo Reservation. Dr. Pacheco directs the innovative College of Nursing RHPP, which aims to improve the development and recruitment of a healthcare workforce to practice in rural and medically underserved areas across Arizona, consistent with the mission of AzaHEC. The program fosters a community of doctorally-prepared nurse practitioners who have didactic and clinical expertise in providing care to rural and medically underserved patients and will serve as leaders in improving the quality and access to care for these patients, with a particular focus on Arizona. There are persistent and widening health disparities in Arizona, with access to care a key issue, particularly among rural and medically underserved populations. This is combined with a shortage of primary care providers across both rural and urban areas, with federally-designated healthcare provider shortage areas (HPSAs) and medically underserved areas (MUAs) located in every county throughout Arizona. Nurse practitioners are in a unique position to provide primary care services with a focus on prevention and community and population health.

Doctoral-level primary care nurse practitioner students in the program took rural-focused coursework, participated in rural and medically underserved clinical rotations and conducted rural-focused practice inquiries. Interprofessional education and practice opportunities were provided through rural-focused courses open to all RHPP health sciences students. These opportunities included participation in monthly web-based rural healthcare breakfast meetings, interprofessional clinical rotations and an interprofessional conference. This program provided both didactic and clinical support for students, as well as stipends and clinical practice tools to support clinical practice rotations in rural and medically underserved areas across Arizona. Over the past year, the program included 22 RHPP scholars. Twenty-three students, including RHPP scholars and other nursing students, received support to complete one or more community-based clinical training experiences in rural or urban underserved sites.

Based on clinical rotation tracking data, there was a dramatic increase in the numbers of rural and medically underserved clinical encounters by College of Nursing nurse practitioner students over the past 3 years. In the 2013 calendar year, there

**UA College of Nursing
Increase in Number of Rural and Medically
Underserved Clinical Encounters over Time**



were a total of 34,620 of these clinical encounters, of which 16,783 were in rural areas and 17,837 in medically underserved areas. This includes data on six RHPP scholars who had 14 semester clinical rotations during this time period.

A program evaluation survey of RHPP scholars was conducted during fall 2013. DNP projects demonstrated a wide range of primary care topics: renal disease/dialysis; mobile primary care; use of IT and telehealth for chronic disease management; and diabetes in various populations, such as adolescents, African Americans and Mexican-Americans. Participants identified planned post-graduation practice areas that included regions across Arizona and ranged from community health centers to private practice.

A statewide interprofessional clinical education activity was conducted June 27, 2014 at North Country HealthCare community health center/NAHEC, with Dr. Pacheco as the primary lead. The event included both in-person and web conferencing participation with RHPP and non-RHPP students across Arizona, including medical, nurse practitioner, physician assistant and pharmacy students from the UA, NAU and Midwestern University. Sites included NAHEC, WAHEC, the UA College of Nursing and the UA College of Medicine – Phoenix. Focusing on social determinants of health, health literacy and interdisciplinary healthcare, activities included presentations, windshield community surveys, facilitated discussion and interprofessional case studies. Thirty-one students registered for this event. North Country Healthcare community health center also hosted an interprofessional RHPP clinical rotation with students from the UA Colleges of Medicine, Nursing and Pharmacy.

Second Annual Interprofessional Rural Health Professions Conference

The Second Annual Interprofessional Rural Health Professions Conference was held on April 18, 2014 at the Arizona Health Sciences Center with more than 160 participants, including healthcare professionals from the community and students and faculty from the RHPPs at ASU College of Nursing & Health Innovation, NAU School of Nursing and the UA Colleges of Medicine, Nursing, Pharmacy and Zuckerman College of Public Health. With a focus on culturally-competent and interprofessional rural healthcare, the conference included a keynote presentation by Roberto Dansie, PhD, a clinical psychologist and a member of the Toltec tribe of Mexico. As a Maya and ancient wisdom scholar, he is recognized internationally as a contemporary authority on cultural diversity. Following Dr. Dansie's presentation, facilitators led break-out group discussions about cultural wisdom, culturally-competent care and interprofessional practice in rural communities. In addition, an interprofessional panel of rural healthcare providers from Arizona shared their insights on rural health issues and interprofessional practice. Subsequent case-based group discussion was facilitated by the RHPP directors.

The conference included a poster session, featuring 18 posters from RHPP students at ASU College of Nursing & Health

Innovation, NAU School of Nursing and the UA Colleges of Medicine, Nursing, Pharmacy and Zuckerman College of Public Health. Example poster topics included evaluating mobile health unit programs in rural Arizona, diagnosing and treating infectious diseases in rural communities, health disparities in Arizona's geographical regions and community assessments of rural areas in Arizona. These posters can be viewed online at <http://rhpp.azahec.org/events/pdf.htm>.

As a result of the conference, participants reported in surveys stronger agreement that the team approach improves the quality of care to patients and that patients receiving team care are more likely than other patients to be treated as whole persons. Participants also reported an increased awareness of different cultural institutions and systems, a higher comfort level treating patients who have different cultural backgrounds and a greater importance placed on cultural competency in the clinical care of patients.

Support for this event was provided by AzaHEC, the UA College of Nursing and the Division of Nursing, Bureau of Health Professions, Health Resources Services Administration, Department of Health and Human Services, under the Technology-Enhanced Rural Interprofessional Primary Care FNP Education grant.



Roberto Dansie, PhD, giving the conference keynote presentation



Roberto Dansie, PhD, joining a break-out group discussion

The University of Arizona College of Pharmacy Rural Health Professions Program

Elizabeth A. Hall-Lipsy, JD, MPH

RHPP Director

*Program Manager, Health Disparities Initiatives and
Community Outreach*

Assistant Professor

A primary goal of this project is to increase the number of pharmacy students participating in the RHPP. AzaHEC funding

has allowed support of quadruple the number of pharmacy participants minimally required by the Arizona state statute. In 2013–2014, 53 students in their second, third or fourth years of study completed clinical rotations in rural and urban underserved areas, totaling 11,440 hours of community-based training. Of these students, 26% grew up in a rural area, and 23% came from a disadvantaged background. In a survey of spring 2014 program graduates (n=14), 93% reported intentions to pursue further training and/or seek employment in an underserved community. Seventy-one percent of graduates planned to remain in Arizona, and 64% intended to work in a rural setting.

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Pharmacy RHPP

Continued from page 9

To further incentivize students and to strengthen the RHPP, the College developed and approved a professional certificate program in Pharmacy-Related Health Disparities. The certificate is only available to RHPP students, and the certificate has been instrumental in the dramatic increase in the number of RHPP applicants and participants as well as the retention of RHPP students throughout their pharmacy education. Ten students in the class of 2014 completed the requirements and received their certificate at the College's Senior Awards Luncheon in May 2014. Of these ten students, nine applied to post-graduate pharmacy residency programs, and all nine were selected for a post-graduate pharmacy residency. This is an amazing result given the College's overall 25% acceptance rate to residency programs. Of the four RHPP graduates who did not participate in the certificate program, one has accepted employment at a rural Arizona pharmacy, one has selected a post-graduate residency placement, one has accepted a position at an urban pharmacy and one is still seeking employment.

In recruiting new students to the RHPP, 19 students from the class of 2017 were selected using an application and interview process. RHPP participants from the classes of 2015, 2016 and 2017 now represent close to 20% of the College of Pharmacy's PharmD student body. A questionnaire and a focus group study to evaluate the impact of rural rotations on future rural practice aspirations continues to compare the pre- and post-rotation questionnaire responses of RHPP participants across various demographic variables.

When RHPP participants and other pharmacy students select rural Arizona rotations, we coordinate activities for the students with the applicable AzaAHEC regional center. Some of the regional centers also assist with housing for the students. As a requirement

of the RHPP, students conduct a community health assessment of a rural community. These community assessments have been shared with local communities and the regional AzaAHEC centers as well as presented at regional and national conferences. Recently, a student was asked by SEAHEC to present at a local workforce development task force monthly meeting. Additional collaboration has occurred with the other health sciences colleges' RHPPs. Three pharmacy RHPP students participated in the UA Zuckerman College of Public Health's service learning programs, and three pharmacy students took part in a state-wide interprofessional activity that addressed the social determinates of health. Twenty-two pharmacy students attended the Second Annual Rural Health Professions Conference, and two students presented posters of their community assessment projects.

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

Jill Guernsey de Zapien

RHPP Director

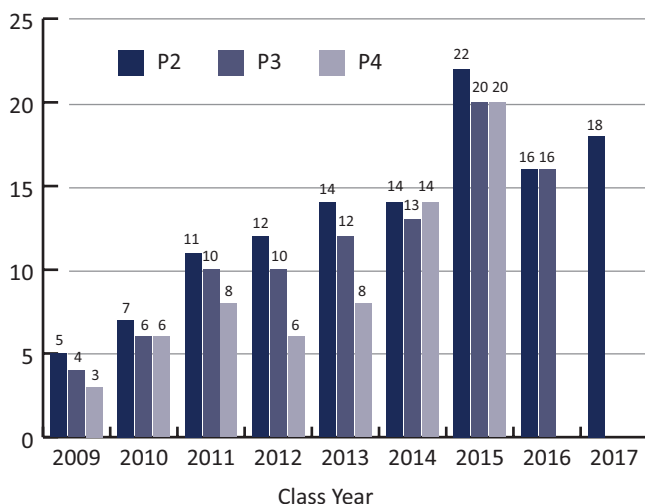
Associate Dean, Community Programs

With continued enthusiasm, the UA Mel and Enid Zuckerman College of Public Health is delighted to report on another highly productive year of our RHPP. Our partnership with AzaAHEC provides outstanding opportunities for our faculty, students and community partners to strengthen their commitment to underserved populations and help improve health equity in our communities. The overall goal of our program focuses on increasing the number of public health students who practice in rural and underserved communities in the state of Arizona. Our

specific objectives include:

- ▶ To create opportunities for MPH and DrPH students at the Zuckerman College of Public Health to participate in service learning field experiences that provide them with direct exposure to and participation in public health programs that are implemented in rural and underserved communities in the state of Arizona.

**UA College of Pharmacy
RHPP Participation by Class Year and
Year in Pharmacy Program**



CPH 597A students at a community event



CPH 597A students and faculty

- ▶ To create opportunities for MPH and DrPH students at the College to participate in service learning courses for academic credit that increase their knowledge and understanding of public health issues in rural and underserved communities in Arizona.
- ▶ To create opportunities for MPH and DrPH students to have positive internship experiences and fellowship experiences

in rural and underserved communities that will impact their career choices upon completion of their degrees.

- ▶ To create opportunities for faculty and academic professionals to partner with community based organizations to meet the public health needs of their communities.
- ▶ To support fellowship opportunities for MPH and DrPH students that will provide for participating in public health programs that are implemented in rural and underserved areas in the state of Arizona and will impact their career choices upon completion of their degrees.

This year, objectives were accomplished through the following 1-unit service learning courses. Since the inception of the RHPP at the Zuckerman College of Public Health in 2007, service learning has been foundational to our program. These courses are one-week immersion courses with direct engagement of select communities and populations. These field-based service learning courses integrate meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities.

Course	Course Name	Number of Students	Course Location	Themes	Communities
CPH 597A	Family & Child Health Issues in Urban Settings	16	Tucson, Arizona	Community-based outreach and research, families, health equity, cultural competency	Refugees, immigrants, homeless, adjudicated, youth, GLBT, Native Americans
CPH 597B	Maternal and Child Health Programs in the Rural North	6	Hopi and Navajo Nations	Community-based outreach and research, chronic disease, tribal health systems, rural health, culture, sovereignty	Community health representatives and Native American women, youth and families
CPH 597C	Border Health Service Learning Institute	15	Somerton and San Luis, Arizona	Border health, globalization, economic development, migration	Farm workers and community health workers
CPH 597D	Rural Health Service Learning Institute	14	Thatcher and Safford, Arizona	Health promotion, environmental health, economic security, community collaboration	Rural mining communities and San Carlos Apache tribal lands
CPH 597F	Phoenix Urban Service Learning	9	Phoenix, Arizona	Urban underserved populations, community-based outreach and research	Phoenix underserved communities

Our RHPP also supports students in rural health policy practicums, internships and fellowships. In 2013–2014, three students participated in a rural health policy and management practicum. Their projects included implementing a community paramedicine program with the Rio Rico Fire District, coordinating a community integrated paramedicine workgroup with the Arizona Department of Health Services, and evaluating fall prevention policies and practices at St. Luke’s Home in Tucson. Four students completed internships in the Greater Valley and Western Arizona AHEC regions. Project topics

included the Affordable Care Act in the Latino community, detection of latent tuberculosis infection among migrant populations, youth participatory action research with Sewa Uusim youth, and strengthening community health workers’ competencies in mental health. A new and exciting development to report is the Interprofessional Border Health Activity which took place in July 2014 and was a joint endeavor with Southeast Arizona AHEC. This two-day activity included students and faculty from the UA Colleges of Medicine, Nursing, Pharmacy and Zuckerman College of Public Health.

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

ASU College of Nursing & Health Innovation (CONHI) provides opportunities for nurse practitioner students to practice in medically underserved and rural areas to stimulate sustained professional work in underserved areas as a career choice. ASU CONHI supports education and clinical practice of graduate nurses in these shortage areas with the goals of improving patient access to care, student training, interprofessional education and practice and involvement in regional communities. ASU CONHI currently has clinical mentors in rural and underserved areas of Maricopa, Coconino, Pima, Pinal, Gila, Yuma and Yavapai counties accepting students in clinical practice rotations.

In 2013–2014, AzaAHEC funding supported 13 ASU students for clinical rotations in rural and urban underserved areas. This group included seven adult-gerontology nurse practitioner students, two family nurse practitioner students, three family psychiatric/mental health nurse practitioner students and one pediatric nurse practitioner student. Three students were underrepresented minorities, and five students reported coming from disadvantaged backgrounds. Almost half of the students grew up in a rural area. These students completed a total of 4,438 hours of community-based training. Students also take academic electives to expand their knowledge of social determinants of health and health outcomes and to develop the necessary understanding of the unique challenges working in rural and medically underserved areas.

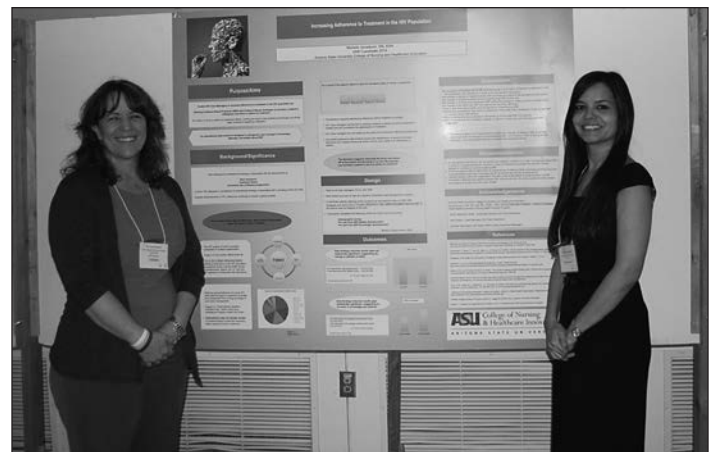
In April 2014, Havasupai tribal elders invited ASU graduate nursing students to participate in a spring health fair. Four students from the family and adult-gerontology nurse practitioner tracks provided health education, screenings and physical activity exercises over the course of three days.

AzaAHEC regional centers have also facilitated student involvement in the community. For example, students partnered with GVAHEC to organize and participate in health fairs and other community events, such as speaking at local high school clubs about the nursing profession and answering questions about the college experience to encourage minorities to enter the field of nursing. Students showed great commitment to the communities they served. Several students rotated in extremely rural areas of both northern and eastern Arizona and were living there 2–3 days per week during their academic studies. They requested to extend this clinical experience for sequential semester block rotations. Students reported that they

tremendously valued their community experiences. One student commented, “[My rotation] setting has helped me to develop an awareness of culturally-sensitive care. I realize developing a connection with your patient is just as important as the information which you are providing...Patients feel respected and listened to, and you leave the room feeling confident that they will carry away the tools...to live a healthier, happier life.”

As a new initiative, ASU CONHI aims to further the development of interprofessional education (IPE) as a component of the RHPP experience. Students have participated in pilot IPE initiatives in clinical practice sites. The goal is to foster positive experiences through IPE in rural and underserved areas and encourage students to seek employment in one of the AzaAHEC regions upon graduation. Among nine spring 2014 program graduates, 77.8% intend to seek employment or pursue further training in primary care in a medically underserved community, and two thirds of the students would like to stay in Arizona.

ASU CONHI has developed a model of service-learning collaborative care, clinical placement and academic initiatives whereby students are paired with two mentors, one clinical professional and one academic faculty. This mentor relationship enhances the clinical experience through the development of students’ learning goals. ASU also provides an academic link for clinical mentors in rural and underserved areas to collaborate with faculty, access university resources and receive support for the teaching and training component of clinical learning. In addition, the ASU Interprofessional Educational Collaborative is currently working to integrate interprofessional primary care curriculum competencies with selected clinical partners to assess the relationship between student performance and clinical population-based outcomes. IPE strategies include simulation, innovative telehealth and distance education and practice models for student and faculty development, all of which may be beneficial to providers and communities in rural and underserved areas.



Michele Javadpoor, RN, BSN, DNP student (right) presenting her poster at the Second Annual Interprofessional Rural Health Professions Conference. She is pictured with ASU RHPP director, Diane Nuñez, DNP, RN, ANP-BC, FNAP (left).

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

Debbie J. Noguerras, PhD, MSN, ANP/FNP-BC

RHPP Director

Associate Professor

*Coordinator - Doctor of Nursing Practice and Family Nurse
Practitioner Programs*

With AzaAHEC's RHPP grant, NAU School of Nursing (SON) provides primary care family nurse practitioner (FNP) students with didactic experiences and clinical support during their rural-focused program. The project has three goals: 1) Hold a week-long intensive 'boot camp' for new FNP students to transition from RN to advanced practice roles; 2) Provide FNP students with financial support for clinical training in rural and medically underserved communities; and 3) Increase opportunities for students to participate in curricular and clinical interprofessional activities.

In 2013–2014, 21 students participated in the week-long boot-camp to support the transition from RN to FNP roles. Boot camp activities included lab and skill development in health



Sonia Helmick, FNP student, practicing suturing

assessment for the adult and pediatric patient, women's health (including a simulated childbirth experience), suturing and advanced office procedures, joint assessment and splinting. Instructional topics included comprehensive lab tests, diagnostic testing and radiology, 12-lead electrocardiogram (EKG), differential diagnosis, documentation and coding,

primary care during pregnancy, evidence-based practice and interprofessionalism. RHPP grant funding supported activity supplies and clinical instructors. Students consistently evaluate this experience as important to their future careers and clinical skills.

During the past year, 51 FNP students participated in primary care clinical rotations in both urban and rural underserved communities. More than half of these students grew up in a rural area, and one third come from a disadvantaged background.



NAU FNP class of 2015

These students completed more than 24,300 hours of primary care clinical training, and they gained experience working with diverse patient populations in both urban and rural underserved areas. Each student received a \$500 stipend per semester to offset expenses for travel, housing and learning materials. NAU SON staff frequently collaborated with AzaAHEC regional centers, including GVAHEC, SEAHEC and NAHEC, to recruit new preceptors, place students in underserved clinical sites and involve students in the community during rotations.

In addition to interprofessional clinical activities, FNP students participated in interprofessional events, including an interprofessional workshop at Scottsdale Healthcare and the Second Annual Interprofessional Rural Health Professions Conference. Joining students, faculty and professionals from multiple health professions, 24 NAU SON students attended this conference in Tucson, and four students presented posters on topics related to rural health and underserved populations.

All of NAU SON's RHPP graduates in spring 2014 expressed intentions to seek employment or pursue further training in primary care for medically underserved communities. Of these 24 students, 88% intend to work in a rural area, and 96% plan to stay in Arizona. Based on follow-up information from spring 2013 program graduates, 16 graduates (80%) are currently working or pursuing further training in medically underserved communities, and 17 graduates (85%) are in rural areas. Ninety percent of last year's graduates have remained in Arizona.

Arizona AHEC Interprofessional Education and Practice

Interprofessional education (IPE) is growing increasingly more important and foundational to improving practice and patient care. Interprofessional education 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. Interprofessional education 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, and enhance the benefits of health care for patients, families and communities.

The University of Arizona seeks to become a nationally-recognized premier institution for IPE by 2020. Since 2007, AzaAHEC has learned important lessons about implementing IPE strategies. Disciplinary silos are difficult to bridge without a fundamental change in culture and more importantly a formalized IPE framework to train faculty and students. Without formalization, the end result—collaborative practice—may remain elusive. AzaAHEC community-based IPE training initiatives must press forward and be supported by the IPE academic infrastructure at the Arizona Health Sciences Center. AzaAHEC is partnering to develop interprofessional education and practice models in order to effectively train our students to practice in teams within our communities.

Interprofessional Education and Practice (IPEP) at the Arizona Health Sciences Center

Supported by AzaAHEC, the Arizona Health Science Center's Interprofessional Education & Practice program (IPEP) works with academic and community partners to ensure that our health professions education provides hands-on opportunities for students to learn and practice in interprofessional, collaborative, team-based environments to provide quality, safe and patient-centered care. In 2013–2014, the IPEP program offered four interprofessional training events, bringing together participants from the UA Colleges of Medicine, Nursing, Pharmacy and Zuckerman College of Public Health as well as from other disciplines and universities. These events blended online learning with in-person team-learning experiences to encourage collaboration and communication across disciplines and professions. At each event, students worked together in interprofessional teams and interacted with interprofessional facilitators from both academia and professional practice.

In fall 2013, the first of the four events, *Interprofessionalism for Patient Safety*, included more than 350 health professions students in the UA Colleges of Medicine, Nursing and Pharmacy and focused on how collaborative teamwork promotes positive patient outcomes. Students learned about shared and complementary scopes of practice and how to be constructive team players. Also during the fall semester, *Pandemic Flu: An Exercise in Disaster Preparedness* involved collaboration among all three state universities and integrated video conferencing



An interprofessional team of students discussing how they will make decisions about triaging patients during a pandemic flu simulation

technologies between the UA Tucson and Phoenix campuses with the technical support of the Arizona Telemedicine Program. Participation included nearly 500 students from the UA Colleges of Law, Medicine – Phoenix, Medicine – Tucson, Nursing, Pharmacy, and Zuckerman College of Public Health; ASU School of Social Work and NAU Physician Assistant Program. Working in small, interprofessional teams, students took part in a simulated pandemic flu emergency, responding to situations involving allocation of limited resources, triage of care, and ethical decision-making. Decisions required combining the unique perspectives and areas of expertise among the professions represented on each team. Richard Carmona, MD, MPH, FACS, 17th Surgeon General of the United States, gave the event's keynote address.

In spring 2014, students again had the opportunity to simulate interprofessional practice during the *CPR Team Behavior Simulation*. Approximately 300 students from the UA Colleges of Medicine, Nursing and Pharmacy were assigned to interprofessional teams of six to eight members. Teams responded to an emergency code situation, using the medical simulation lab technologies of the UA College of Medicine's Arizona Simulation and Technology Education Center and the UA College of Nursing's Steele Innovative Learning Center. This exercise focused on team skills and effective communication.

The final event for the academic year, *Disabilities: An Interprofessional Exercise*, involved about 250 students from the UA Colleges of Law, Medicine, Nursing, Pharmacy and Zuckerman College of Public Health as well as ASU School of Social Work and NAU Physical and Occupational Therapy programs. Through a situational learning exercise and a panel discussion with members from the community, students learned the importance of multiple communication methods, social and cultural understanding and interprofessional, team-based practice in caring for patients with disabilities.

Arizona AHEC Medical Residencies

Graduate Medical Education (GME): GME (a residency program) is a period of specialty education 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 the residency, the 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. (Source: Accreditation Council for Graduate Medical Education, <http://www.acgme.org/acgmeweb>)

The University of Arizona College of Medicine at South Campus Family Medicine Residency

Julia Hardeman, MD
Rural Curriculum Director

Through partnership with AzaAHEC, collaboration with rural preceptors across the state and comprehensive training at our primary training site in Tucson, The University of Arizona College of Medicine at South Campus Graduate Medical Education (GME) Consortium is equipping primary care residents with the skills needed to provide care to patients in rural, underserved and under-resourced communities.

Rural Primary Care Rotations, Outstanding Preceptors and Supportive Regional AHEC Staff

In 2013–2014, AzaAHEC helped send first, second and third year family medicine residents on rural family medicine, obstetrics and emergency medicine rotations to the communities of Tuba City, Polacca, Safford, Show Low, Whiteriver, Nogales, Sells and Fort Defiance. Internal medicine residents completed rotations in Green Valley, Arivaca, Wickenburg and Marana. Residents in both programs combined completed over 40 rural rotations across the state.

AzaAHEC supported courses to help prepare family medicine 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 an introduction to

medical Spanish. AzaAHEC also allowed for ongoing faculty development support by Tejal Parikh, MD, which included shadowing and teaching feedback for many rural preceptors teaching our residents in rural communities.

Both primary care residencies enjoyed a successful “Match Day” last spring, thanks in part to the interest generated by our residencies’ rural curricula. Graduating medical students from all over the world interview at our facility each fall; the most common reason cited for applying to our family medicine program is the unique educational experience offered by our rural sites. The high quality of our rural rotations is due in major part to the people we have the privilege of working with in these communities. The rural physician preceptors are described by our residents as compassionate, skilled, committed physicians who teach about and role model what it means to care for under-resourced patients. The clinic and hospital staff welcome our residents to the facilities where they rotate, and patients graciously accept our residents as a part of their care team. Our rural curriculum is a success thanks to so many that volunteer their time for the benefit of our learners.

Additionally, we owe many thanks to the staff of the regional AHEC centers. Eastern Arizona AHEC (EAHEC) and Southeastern Arizona AHEC (SEAHEC) staff have been vital to assuring our residents have a safe, comfortable place to stay while completing rotations in their regions, and that they receive an orientation to the local community. The SEAHEC office in Nogales was also the site of our 2013 annual residency faculty retreat. This allowed our residency faculty the opportunity both

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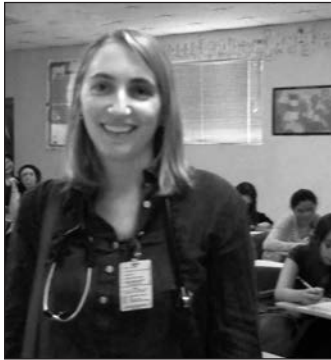
South Campus Family Medicine Residency

Continued from page 15

to meet Nogales physician preceptors and to learn more about the work SEAHEC is doing. We are grateful to Gail Emrick and her staff for their hospitality during our day in Nogales.

Rural Community Involvement

In addition to the clinical experiences our residents have at the rural sites, we encourage them to get involved in the rural communities in which they are based. One resident said of her experience visiting a patient with a home health nurse in Nogales:



Dr. Grace Price sharing with high school students in Nogales about her training and experiences as a physician

“Living in Nogales and seeing patients here, I recognized that many things about this community were different from my usual experiences.... however, it was only with the home visits that I got the chance to glimpse life behind the doors of my patients’ houses and see many of the details that don’t come up in a 15 minute office visit. I got to see what foods a patient’s cupboard was stocked with, hear about the reliance of a patient with decreased mobility

and options on fast food, and see the struggle it took for a patient to get himself out to the car for a doctor’s appointment. I was also lucky to see how the home health nurse I worked with could involve herself in that patient’s struggle and find solutions for him that he had never thought of. I am grateful for this opportunity to learn more about the community.”

– Grace Price, PGY-1

Interprofessional experiences like these encourage residents to think beyond the clinic and hospital environments, and help them learn to collaborate with members of the health team throughout their medical careers.

Dr. Price also had the opportunity to speak to the Future Healthcare Leaders Club in Nogales. After her talk, local youth asked her questions about her work and the training required. One young person remarked, *“I loved Dr. Price because she was so happy. It inspired me to keep my career in the medical area.”* This type of role-modeling can be motivational for helping young people choose health-related careers that may someday benefit patients in the communities in which they were raised.

Across the state at Hopi Health Care Center, another first-year family medicine resident, Myles Stone, gave back to the community in other ways. Dr. Stone had this to share about his experiences on the Hopi Reservation:



Dr. Myles Stone sharing about health topics during a local radio broadcast in Polacca

“Rural rotations allow us to connect with our patients in ways that just aren’t possible in other settings. During my time on the Hopi reservation, I’ve been able to coach youth soccer, perform newborn exams in patients’ homes, and even discuss health topics on the radio. It has been an amazing opportunity, and the experience has introduced me to what I hope will be my first job after residency.”

– Myles Stone, PGY-1

Sharing about these community experiences, rural curriculum design and other aspects of our rural rotations were the focus of a presentation which AzaAHEC supported at the 2014 Society of Teachers of Family Medicine national meeting in San Antonio. Our residency curriculum offers a unique combination of rural clinical experiences to residents who are primarily based in an urban setting; at this presentation, we were able to dialogue with and share tips with others who are developing similar opportunities for their residents.

Mobile Health Program Obstetrics

Complementing their training at rural sites, our family medicine residents also cared for patients through Mobile Health Program Obstetrics (MHPOB), which offers family medicine residents the opportunity to provide low-risk prenatal care and delivery services for uninsured or underinsured pregnant women who would otherwise have no prenatal care prior to delivery. Patients who come to the MHPOB clinics are provided educational resources on topics related to healthy pregnancy, delivery and care of the newborn. In addition to prenatal care and education, women receive contraception, postpartum care and initial well baby exams through MHPOB. Funding from AzaAHEC supported Dr. Victoria Murrain’s supervision of this program, now in its tenth year of operation. MHPOB involves the combined efforts of students in pharmacy, medicine, nursing and public health.

NAHEC/North Country HealthCare Family Medicine Residency Program

Sean Clendaniel, MPH

NAHEC Director

Years in the making, NAHEC/North Country HealthCare is developing a family medicine residency program. The need has never been higher, the solution never clearer and the opportunity never better to develop the only residency program covering

the northern third of Arizona and accredited by the Accreditation Council for Graduate Medical Education (ACGME). Unique in its location and model as the only community-health-center-owned residency in state, this program will be a bellwether health professions and medical education program for the Flagstaff community, the state of Arizona and the nation.

The physician shortage facing our nation and Arizona is a serious issue. Overall, Arizona ranks 49th in per capita health services employment, according to the Health Resources and Service Administration (HRSA). Over the next 15 years, the national physician shortage is projected to exceed 130,000, with Arizona alone being just shy of 3,000. Major factors driving the shortage are population growth, an aging population, an increase in chronic disease and health system delivery changes. The problem is even more severe in the rural communities throughout northern Arizona. Fewer and fewer medical schools are graduating students who enter primary care residency programs (family medicine, pediatrics, general internal medicine and geriatrics). This shortage will have a negative impact on economic development efforts and quality of life in Arizona.

Studies have shown the importance of health care services, particularly in rural communities, for developing new industries, recruiting new businesses and attracting new residents. Businesses hesitate to move into regions in which employees will have limited access to healthcare services, and it is well-established that one primary care physician has a direct economic benefit to a community of over one million dollars. Above all else, physician shortages have a dire consequence on quality of life of individuals and communities. Decreased access to care has many immediate effects (longer wait times when scheduling doctor appointments) and long-term health consequences. Primary care physicians, especially family medicine, are the backbone of the health system. Family medicine is a broad-based specialty covering prenatal

and delivery care as well as patient care for all ages (infants, children, adolescents and adults) in clinics, hospitals and assisted living settings; thus, family medicine physicians are well-suited to meet the healthcare needs in rural and frontier areas.

Our solution is to develop medical education programs in physician specialties of highest need, in places of highest need, using innovative models. Addressing this shortage requires an expansion of the physician training pipeline, which includes medical schools and residency programs. North Country is already addressing the medical school portion through its



*Rick Stone, MD, MPH,
Program Director for
NAHEC/North Country
HealthCare Family
Medicine Residency
Program*

partnership with A.T. Still University (we sponsor 30 medical students) and the UA College of Medicine (Tucson and Phoenix), plus extensive partnerships with other health professions programs. However, one of the best predictors of where physicians will practice is where they trained in residency. This new family medicine program will be one-of-a-kind in the state. It will help meet regional and statewide primary care workforce needs, increase access to care, develop a culturally-attuned physician workforce, have far-reaching economic impacts and address long-standing health disparities.

We submitted our ACGME sponsoring institution application, and our application will be reviewed in January 2015. By spring 2015, we will have provisional accreditation, and we will begin recruitment of our first class of residents during the summer and fall. We will go through the match process in March 2016, and our inaugural class will start in summer 2016.

Program Highlights

Continued from page 1

AzAHEC also supported the following:

- ▶ 222 professional continuing education courses for 8,139 participants, including physicians, dentists, public health professionals, pharmacists, nurse practitioners, registered nurses, physician assistants and allied health professionals
- ▶ 170 health career preparation programs to 7,520 students, including K–8th graders (1,087), high school students (6,338) and undergraduates (95)
- ▶ 12 small research/project grants to students, faculty and/or community organizations
- ▶ The Second Annual Interprofessional Rural Health Professions Conference was co-sponsored by AzAHEC and the UA College of Nursing in collaboration with the RHPPs at the UA College of Medicine (Tucson and Phoenix), UA Mel and Enid Zuckerman College of Public Health, UA College of Pharmacy, ASU College of Nursing & Health Innovation and NAU School of Nursing. The conference was also supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration.

Innovative Arizona AHEC Supported Projects



MEPN Phoenix graduates in August 2014

The University of Arizona College of Nursing Master Entry into Professional Nursing (MEPN)

Terry Badger, PhD, RN, PMHCNS-BC, FAAN
Director, Division of Community and Systems Health Science

The primary purpose of this project was to establish an accelerated master of science in nursing degree program, housed at the Phoenix Biomedical Campus. This Master Entry into Professional Nursing (MEPN) program is designed for those who hold a degree in another field and are desirous of obtaining a nursing degree as a second career option. This program furthers the mission of AzaAHEC to alleviate health care provider shortages and improve health care access for underserved communities in the Greater Valley AHEC (GVAHEC) region.

Two groups of students have graduated from the Phoenix campus, and the majority obtained nursing positions in the GVAHEC region, expanding the master-prepared nursing workforce in the area. Program graduates have also formed a scholarship fund for current students. The program's third cohort, 24 students, was admitted in May 2014.

Increasing the program's visibility in the Greater Valley region, students have completed clinical practica at Maricopa Integrated Health Systems (MIHS) facilities, Scottsdale Healthcare Systems, Banner Health, long-term care facilities associated with GVAHEC and public health departments in Maricopa County.

In addition, students participated in interprofessional activities, including an emergency response drill using Tri-Care's mobile simulation laboratory. The program has also expanded the faculty at the UA Phoenix Biomedical Campus.

The program anticipates expanding the Phoenix cohort in the coming years; our next expansion is scheduled in 2016. As students go out into the workforce and represent the program well, the program will continue growing with the support of the GVAHEC community.



MEPN Phoenix students teaching NAU physician assistant students how to do injections, lab draws and insert IVs during "Bootcamp for PAs"



MEPN Phoenix students Denise Filley, Lorena Deniz Alvarez and Jennifer Hill volunteering with the American Red Cross at World Refugee Day in Phoenix

The University of Arizona Mel and Enid Zuckerman College of Public Health – Phoenix Campus Master of Public Health Degree Programs

Cecilia Rosales, MD, MS

Assistant Dean, Phoenix Programs

The UA Mel and Enid Zuckerman College of Public Health – Phoenix Campus offers a master of public health (MPH) degree program in public health practice (PHP) and will welcome its fifth cohort of students in fall 2014. Total enrollment will reach 78 students, including new and continuing students, in the fall. Some of these students are completing a dual degree, doctor of medicine (MD)/MPH. AzAHEC has provided support to this program since its establishment in 2010. This MPH degree program will be expanded in fall 2014 to include an additional track in health services administration (HSA), with a cohort of ten students. Both tracks combine distance and in-person teaching modalities. Core courses include epidemiology, biostatistics, environmental and occupational health, public health policy and management and socio-cultural and behavioral aspects of public health. As a culminating experience, an internship or capstone project is required of all students prior to graduating, and it allows students to integrate classroom learning in practice settings.

In 2013–2014, 34 MPH students completed internships with a variety of public health community organizations and agencies, especially in underserved communities of Arizona’s Greater Valley region. Students’ internships ranged from 270 to 540 hours and covered diverse public health topics in biostatistics, disease prevention/health promotion, health policy/management, infectious disease control, injury prevention, social/behavioral science and environmental health. Examples of projects include: “Building Capacity and Strengthening Arizona’s Community Health Worker Movement and Leadership;” “Comparison of the Barriers to Poison Control Center Utilization among Urban and Rural Populations in Arizona;” and “The Affordable Care Act in the Latino Community: Process, Barriers and Recommendations.” Students worked with the Arizona Department of Health Services, Banner Good Samaritan Hospital, the Inter Tribal Council of Arizona, Maricopa County Department of Public Health, Phoenix Children’s Hospital and many other organizations.

The UA Zuckerman College of Public Health – Phoenix Campus continues to cultivate strong relationships with community partners in order to recruit prospective students, develop internship projects, share information about college events and collaborate with community public health professionals in curricular activities. Outreach efforts have targeted state

and county health departments, local hospitals, community health centers, ASU, NAU, the AzAHEC regional centers and others. To reach both traditional and non-traditional prospective students, the college’s staff hosted multiple virtual recruitment events, in addition to in-person informational sessions and participation in multi-university career fairs. The College looks forward to involvement in the 2014 Health Equity Conference in October 2014. The conference will highlight current health equity research and outreach in Arizona and offer opportunities for networking and collaboration among public health organizations and practitioners.

In partnership with Greater Valley AHEC and Northern Arizona AHEC, UA Zuckerman College of Public Health – Phoenix Campus is working to establish high school health career clubs with a public health emphasis, in order to encourage youth to consider public health careers. Other collaborators have included the UA College of Medicine – Phoenix, the UA admissions office and Arizona HOSA Future Health Professionals. The college’s staff hosted public health workshops and activities for high school students at Aguila Youth Leadership Institute, the Balsz Youth Advisory Council community wellness celebration and Bioscience High School. Through an outreach-based course, “Community Health Practice with Youth,” Phoenix MPH students were placed in K–12 environments to provide health education on nutrition, physical activity and sun safety.

The Supply of Physician Assistant, Nurse Practitioners and Certified Nurse Midwives in Arizona

J. Tabor, PhD, MPH

Principal Investigator

*Assistant Professor, UA Mel & Enid Zuckerman
College of Public Health Center for Rural Health*

Executive Summary

AzAHEC commissioned *The Supply of Physician Assistants, Nurse Practitioners and Certified Nurse Midwives in Arizona*. Assuring access to high quality health care requires the following:

1. An adequate *supply and distribution* of health services, through the training, recruitment and retention of the health workforce.
2. Efficient *use* of health practitioners practicing to the full extent of their education and training.
3. Physical, financial and timely *access* to high quality health care and services.

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The Supply

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When this triad is off balance, disparities in health outcomes appear. Health workforce data, trends and analysis can alert policymakers to deficits in access, supply, distribution and cost efficient use of health services. These inform public and private sector interventions and policies to assure access to high quality, high value health care for all Arizonans.

Arizona has a strong health infrastructure to build on and unprecedented opportunities to transform its health system. In rural Arizona, 15 critical access hospitals (CAHs), community health centers including 20 federally qualified health centers (FQHCs) with clinics in over 60 communities and rural health clinics (RHCs) in over 20 cities, Indian Health Service (IHS) sites in the Phoenix and Tucson areas and others provide crucial health services, jobs and economic benefits. Yet Arizona has unique challenges—it has two large urban and many widely-dispersed rural populations, a high percentage of uninsured overall, and uninsured rates exceeding 30% in rural, border, Hispanic/Latino and American Indian populations. Many face poverty, unemployment and limited access to health care.

Rural Arizona has fewer providers compared to urban areas. Overall 11% of physician assistant (PA), nurse practitioner (NP), and certified nurse midwife (CNM) providers work in rural areas and serve 15% of Arizona's population. Most (89%) work in urban Arizona. Ninety-one percent of the 3,068 NPs, 82% of the 182 CNMs and 87% of the 2,039 PAs are in urban Arizona. Having too few providers delays necessary care, worsens health outcomes and increases costs through greater hospital and emergency department use. Oversupply is associated with unnecessary procedures, poorer health outcomes and higher costs. Fine-scale geographical data, such as postal ZIP codes, can elucidate whether a population is underserved, adequately served or oversupplied for specialty and primary care.

Primary care is recognized as a cornerstone in population health. However, many physicians and other clinical providers subspecialize and work in urban areas, reducing the primary care workforce in rural areas. NPs, CNMs and PAs are crucial to primary care capacity and provide high quality care. Yet few studies assess their important contribution to a well-functioning, accessible health system.

The Supply of Physician Assistants, Nurse Practitioners and Certified Nurse Midwives in Arizona used licensing board data, training and graduation numbers from PA and NP colleges, and interviews with individual PAs, NPs and CNMs. The study calculates Arizona's provider to population ratio; compares it to the national average; reports the number of PA, NP and CNM providers attending Arizona schools by specialty and primary care; and estimates the number needed in Arizona to meet national benchmarks. Recommendations are made to improve

provider supply and distribution to areas of need, enhance access to health care in rural areas and increase the PA, NP and CNM provider workforce.

Key Findings of the PA, NP and CNM Arizona Workforce Study:

- ▶ The Arizona health workforce is aging—54% of CNMs, 41% of NPs and 26% of PAs are age 55 or older.
- ▶ Many plan to retire in the next ten years.
- ▶ Many choose where to practice based on job description and location.
- ▶ Only 58% of PAs, 54% of NPs and 50% of CNMs accept new Medicare/Medicaid patients.
- ▶ The majority of PAs, NPs and CNMs work in direct patient care and over 40 hours a week.
- ▶ Rural Arizona has fewer NP and PA providers per capita than urban areas.
- ▶ Urban Arizona has fewer CNMs per capita than rural areas.
- ▶ Most PA, NP and CNM providers do not own their practice.
- ▶ CNMs identified reimbursement rates as a reason to stop practicing in the next ten years.
- ▶ The majority of PAs, NPs and CNMs practicing in Arizona were recruited from other states.
- ▶ Only 50–60% of the PAs and NPs trained in Arizona practice in Arizona.
- ▶ There are numerous opportunities to address workforce shortages and improve access to high-quality, cost-efficient health care in Arizona's rural and urban underserved areas and populations.

Full report available at <http://azahec.ahsc.arizona.edu>

AzaHEC Sponsorship

AzaHEC was proud to be a platinum sponsor of the 41st Annual Rural Health Conference in Litchfield Park, Arizona in August 2014. This annual event is presented by the UA Mel and Enid Zuckerman College of Public Health, Center for Rural Health. The conference provides an environment to dialogue, network and attend educational activities. Conference information can be found at <http://crh.arizona.edu/events/annual-conference/2014>.

Intramural Grant Funding

Since 2007, the Arizona AHEC Program has periodically solicited proposals for small research and project grants. The purpose is to 1) provide graduate health sciences students, medical interns and residents with an opportunity to gain experience in rural and urban medically underserved Arizona communities through research and/or scholarly projects; 2) interest Arizona health sciences students in rural and urban medically underserved practice and other areas of unmet need; and 3) address community needs through health promotion and disease prevention research and relevant projects. The following abstracts reflect work completed in 2013–2014.

CranioSacral Therapy Training at Hopi: An Introduction to Techniques Derived from Osteopathic Medicine

Alejandra Gabriel, MA, MPH, CPH, Project Director

This project proposed to teach Introduction to CranioSacral Therapy (CST) at Hopi. This project was conceptualized as a result of requests from several Hopi women, and the AzAHEC grant covered training for ten Hopis. The training provided attendees with manual treatment techniques they can use to help themselves and their families. The class also introduced attendees to a potential health care career in CST, which has its roots in osteopathic medicine. CST is a light-touch treatment that is performed with the client fully clothed, resting comfortably on a table or in a chair. Practitioners find and release restrictions in fascial tissue that may be causing symptoms. The Introduction to CST class was developed for lay people and has been taught for over 20 years.

Using social cognitive theory as a theoretical foundation, the training was conducted using multiple teaching methods to increase self-efficacy in attendees. Lecture, demonstrations

Ali Gabriel, MA, MPH, CPH, CST-D is a doctoral student in public health policy and management at the UA Zuckerman College of Public Health. She lectures on process improvement in health care and teaches a graduate interdisciplinary course on quality improvement and safety in health care. During recovery from an equestrian accident and the resulting traumatic brain injury, Ms. Gabriel discovered the value of CST and worked with John E. Upledger, DO, OMM, developer of CST. At her CST offices in Phoenix and Gilbert, she treats people of all ages with a variety of conditions. Through teaching and mentorship, she hopes to grow the community of CST practitioners.

and hands-on practice increased the knowledge and skills of students. Feedback from the instructor and teaching assistants helped the learning process, and a number of teaching tools, such as printed study guides, anatomical models and wall charts, were used as references.

At Hopi, community and collaboration are important, and over their lifetimes, traditional Hopis learn more and more about life and their culture through ceremonies and initiations. As a result, as one ages, one's opinion becomes continuously more valuable. For this project, to introduce CST to Hopis as a possible rural health care career, it was important to

include elders and others from several villages. Training attendees included the CEO of the Hopi Health Care Center, the chairman of the Hopi Foundation, the chairman of the Hopi Tewa Women's Coalition Against Violence, two traditional healers, a physician, several other health care workers and a retired Vietnam veteran. Several of the Hopi villages were represented, and most attendees were elders.

Survey data collected before and after the classes indicated that attendees learned about the history



CranioSacral Therapy Training at Hopi

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CranioSacral Therapy Training

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of osteopathic medicine, learned CST techniques that they could immediately begin to use to help family members and friends, and gained a better understanding of the career potential of CST. After each class, the participants and other Hopis were invited to discuss their thoughts about CST and next steps. “Every Hopi needs to learn this” was a statement made by several elders.

Evaluating Healthy Growth Among WIC Infants: A Formative Assessment

Angela Valencia, MPH, Project Director

Physical growth among infants has been shown to be a good indicator of health and wellness. Health experts in child development indicate that growth should be carefully monitored as early as infancy to help health care providers detect risks for poor development. With the current trends of overweight rates among children, research suggests that early intervention that targets parental understanding of infants’ growth assessment may help reduce future rates of overweight among young children. The overall goal of this project was to determine if a culturally-appropriate educational intervention can help WIC (Women, Infants and Children program) moms effectively use growth charts and adopt behavior change strategies aimed at both monitoring infant growth and maintaining the infant/toddler’s healthy growth trajectory. This pilot phase included a formative assessment with WIC clients in Tucson and Nogales, Arizona.

Eight focus groups were conducted with a total of 53 participants (34 mothers and 19 caregivers), and six interviews were conducted with WIC staff. During the focus group discussion, participants were presented with a brief introduction of growth charts, what they are, how they are used and step-by-step instructions on how to plot infant weight and

Angela Valencia, MPH is a senior research specialist and a public health doctoral student at the UA Zuckerman College of Public Health. Her interest is addressing health disparities in the Latino population. From personal experience, Ms. Valencia understands the barriers to care that immigrant families may face, and her mission is to facilitate education and improved access. Her dissertation is focused on addressing childhood obesity among underserved families.

length by age. Data show that mothers’ perceptions regarding infants’ healthy growth are a result of multilevel socio-ecological factors that influence behaviors. Overall, growth charts were well-received by participants. Future interventions utilizing the growth chart as a tool for growth monitoring will require culturally-sensitive education that teaches mothers the growth chart interpretation of healthy growth for their child. The following areas need to be addressed: 1) Importance of healthy weight; 2) Basic concept and application of growth charts; and 3) Education for WIC staff on how to talk with parents about weight issues.

Assessment of the Nutrition Environment in Florence, AZ

Elizabeth Kizer, MS, Project Director

As a doctoral student studying public health, I am interested in the increasing rates of obesity and related chronic diseases in the United States and especially among rural populations. Though many factors are known to contribute, one central concern is the availability and affordability of healthy foods. By now, many researchers have documented the obvious: lack of access to nutritious food leads to unhealthy lifestyles. Further, rural residents are at particular risk for having low access to healthful foods. I conducted a comprehensive assessment of the community and consumer nutrition environments in the rural town of Florence, AZ from December of 2012 through July of 2013. My goal was to document local access to healthy foods and identify potential policy or environmental-level changes that could be the focus of an intervention and community-based participatory research project.

During the project, I met with community partners and established a coalition of interested citizens, with whom I collaborated on a community survey regarding the Florence nutrition environment. The most popular potential improvements to the Florence nutrition environment were getting a full grocery store in the downtown area, starting a farmers’ market, having new dining options, expanding healthy menu options at existing restaurants and producing a menu guide that would point out healthy choices at existing restaurants. With funding from AzAHEC, coalition members and I conducted a formal survey of the nutrition environment in Florence using the Nutrition Environment Measurement Survey (NEMS) tools, which measure the availability of healthy food options and pricing in restaurants and stores.

Clear findings emerged from this comprehensive assessment of the Florence nutrition environment: 1) Downtown Florence residents and employees suffer a significant disparity in terms of accessing healthy foods; 2) There is no significant local production of fresh produce to support a farmer’s market or

Elizabeth Kizer, MS is a doctoral candidate in public health policy and management at the UA Zuckerman College of Public Health. Her focus is identifying policy and environmental changes that affect the availability of healthy foods, especially in rural communities. As the former Apache County health director, Ms. Kizer has a great deal of practical knowledge about rural communities and their public health systems. She utilizes community-based participatory research frameworks in order to engage community members facing disparities in access to healthy foods.

CSA; 3) The locally-owned restaurants (excluding fast food) do not offer consumers nutrition information or highlight healthy choices; 4) The food stores in downtown Florence do not generally offer healthy choices and when they do, they are at a significant increase in cost compared to prices at Safeway; 5) None of the stores in downtown Florence sell fresh vegetables and there are only a small handful that sell a limited selection of fruit at a very high cost; 6) Coalition members living in downtown Florence report traveling between 12 and 50 miles, one-way, at least once a week to purchase groceries; 7) Three of the five census tracts that contain Florence addresses are considered to be food deserts by the USDA; 8) The diets of Florence youth appear to be deficient in fresh foods. A significant portion of their daily calories are from added sugar, they are consuming increasing quantities of highly-processed macronutrients and fewer fresh foods; 9) There are many Florence residents who are concerned about this disparity and who are in favor of improvements to their nutrition environment.

In the future, members of the Florence Healthy Food Environment Coalition could serve on a community action board (CAB) in order to engage in a community-based participatory research project to improve the nutrition environment in Florence. The goal of the CAB, in partnership with this researcher, would be to increase access to healthy foods in downtown Florence. Potential action items include: 1) Work with existing stores and restaurants (and their existing supply chains) to increase the availability of healthy foods at a reasonable price; 2) Expand Bountiful Baskets cooperative to include a site in downtown Florence; 3) Work with the Town of Florence to create incentives or small, low-cost loans for local business who are working to increase the availability of healthy foods; 4) Focus efforts on the local production of fresh foods by providing educational classes and support for backyard growers; 5) Support local development of a CSA, cooperative or farmer's market with a coalition of committed growers; and 6) Focus efforts on improving institutional nutrition environments in Florence, such as in schools or the senior center.

Healthy Farms/Campos Saludables

Gail Emrick, MPH, Project Director
Lauren Acosta, MS, DNP student and
Audrey Johnson, MD/MPH student

Southeast Arizona AHEC (SEAHEC) received AzaAHEC small grant funding in order to involve two UA health professions students in program development for Healthy Farms/Campos Saludables. This project was a continuation of an AzaAHEC-funded initiative begun in 2007 to investigate health issues among farmworkers in the Douglas-Willcox area of Cochise County. During the course of this initiative, SEAHEC, the Arizona-Mexico Commission (AMC), Chiricahua Community Health Center (CCHC) and multiple public health students have collaborated to develop the Healthy Farms program, including recruitment of farmworkers from Cochise County farms who wished to become community health workers (CHWs), identification of community health and advocacy needs and creation of a training and community education curriculum. Over this past year, significant progress has been made on four key goals: health and safety workshops, referrals to health and human services, community advocacy projects and health professions student involvement.

Healthy Farms addresses both access to health services and workplace health, safety and sanitation conditions by working with both farmers and farm workers to provide health education and preventive services, while linking them to clinical care and technical assistance. Considering that farmworkers have a high poverty rate, higher-than-average rates of chronic disease and workplace injuries and lower-than-average rates of service utilization, this program supports much-needed prevention and access to care.

This year, Healthy Farms coordinated six CHW-led workshops for low-income farmworkers living in Winchester Heights, a community outside of Willcox. Workshops were conducted by three CHWs who are agricultural workers and respected members of the community. Based on community needs and interest, workshop topics included diabetes, nutrition, sun/heat safety, cold/flu/appropriate antibiotic use and alcohol/drug abuse. Attendees were highly engaged and brought information back to their families and co-workers. CHWs were evaluated as effective educators and showed steady improvement in presentation skills and understanding of material. The CHWs have received requests for additional workshops, especially related to diabetes.

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Healthy Farms

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In preparation for the workshops, the Healthy Farms program coordinator, a medical/public health student and a doctoral nursing student led monthly CHW training and planning sessions. The participation of health sciences students has supported the success of the CHW program and provided leadership development for the students. Nurse practitioner student Lauren Acosta and MD/MPH student Audrey Johnson validated medical accuracy in the curriculum and answered CHWs' questions regarding health topics. Lauren Acosta, having already spent a semester working with the CHWs, has now taken on the role of coordinating the program and is using the Healthy Farms/Campos Saludables experience as the basis for her project inquiry research.

Working with CCHC, Healthy Farms achieved another program objective by establishing a referral system to connect community members to needed health services and community resources. The new referral system provides a long-term solution to the community's barriers to accessing health services by having a constant cycle of assessment, referral, treatment, education and feedback between community members and CHWs, and between CHWs and CCHC staff. Future projects for Healthy Farms include the development of a prenatal care curriculum tailored to the community, conducting onsite health and safety classes at local farms and finalizing installation of school bus stops in Winchester Heights.

Development of clinical sites in Payson, Arizona for medical residents

Jeri Byrne, BA, MS, Project Director

Eastern Arizona AHEC (EAHEC) provides services in Gila, Graham, Greenlee and southeastern Pinal counties. With small grant funding from AzAHEC, EAHEC developed new clinical sites in Payson, Arizona for medical residents' rotations. Payson is a rural community located in Gila County. This project supported the AHEC mission of health professions education and training in rural and underserved areas.

The availability of medical care is an extremely important quality of life issue for all citizens, but especially for those located in rural areas. Our rural areas continually struggle to become healthy and sustainability communities. In order to attract economic development projects and new employers, our rural communities need to be able to provide basic services, such as education, employment and health care providers and services. EAHEC identified Payson as a prime rural clinical area where students and health professionals could be placed for rotations.

During the project, EAHEC identified providers within the Payson area and arranged for a face-to-face meeting to discuss the possibility of their clinics serving as host sites for residents from The UA College of Medicine at South Campus Family Medicine Residency Program. Two providers, a family medicine doctor and an OB/GYN doctor, were identified and agreed to enter into the site approval process with the residency program. Housing options have been secured for the residents, and EAHEC and Payson are looking forward to welcoming the first group of residents once the site is approved by the UA College of Medicine. Residents will begin rotating with these providers in 2015.

Currently Funded Projects in Progress

Sponsoring Agency	Proposal Title	Award Amount	Principal Investigator
UA Department of Surgery, Division of Trauma	Traumatic Brain Injuries in Western Arizona: An Intervention to Close the Gap in Trauma Care Available and Improve the Quality of Care Delivered	\$4,706	Lynn Butvidas
UA Mel & Enid Zuckerman College of Public Health and UA College of Pharmacy	Pharmacy Preceptor Perceptions of the "Educating Pharmacy Students and Pharmacists to Improve Quality" (EPIQ) Program Team Quality Improvement Projects	\$5,000	Joni Dean
UA College of Medicine – Tucson	Emergency Department Recidivism and Health Care Costs: The Impact of Dispensing Antibiotics at the Time of Emergency Department Discharge	\$5,000	Bradley Dreifuss
UA College of Medicine – Tucson	Arizona Emergency Care Staffing Survey: Finding Educational Exchange Opportunities to Enhance Rural Health Care Services	\$4,650	Bradley Dreifuss
UA College of Nursing	Recalibration of the Bedside Pediatric Early Warning System for Critically Ill Very Low Birth Weight Infants	\$4,999	Sheila Gephart
UA Mel & Enid Zuckerman College of Public Health	Detection of Latent Tuberculosis Infection Among Migrant population, United States and Mexico Border	\$5,000	Obiyo Osuchukwu

Regional Center Director Reports

Eastern Arizona Area Health Education Center (EAHEC) Activities

Workforce Development Summary - EAHEC

Type of Program	Number of Participants
Health Professions Students Education	193
Health Professions Continuing Education	312
Health Careers Preparation	3,175
Community Health Education	4,093



Jeri Byrne, BA, MS
Executive Director, Eastern Arizona Area Health Education Center

EAHEC, located in Globe, Arizona, is dedicated to the overall mission of the Arizona AHEC program. We support current and future health professionals as well as healthy communities through education, support and commitment to the overall future of the rural communities within Gila, Graham, Greenlee and southeastern Pinal counties.

EAHEC approaches this mission by involving our diverse board members, our unique communities and the variety of healthcare providers, facilities and workers throughout our region. EAHEC's clinical rotation program is popular among health profession students, who ask to be placed with our amazing rural preceptors. EAHEC is immersed within our communities through our staff and board members. Maintaining and building relationships is a valuable part of our work, whether it be with county government for which we have provided EAHEC-developed professional development programs, or with the San Carlos Apache tribal members with whom we work closely on continuing education programming for the tribal health department and the IHS hospital and on the Pathways into Health summer initiative. EAHEC also works with communities to provide a chronic disease management program and with area schools to provide health career and leadership programs.

EAHEC is pleased to support students from the UA Colleges of Medicine – Tucson, Nursing, Pharmacy and Zuckerman College of Public Health. Every summer, the Zuckerman College of Public Health consults with EAHEC and our communities to provide a service learning project for public health students, which brings the students into a rural community to help, learn and listen to the needs of that community. Every year, the program changes the hearts and minds of everyone involved for the better. This is a beautiful example of the success of collaboration between the AHEC regional centers and the UA.

Most recently, EAHEC has assisted The UA College of Medicine at South Campus Family Medicine Residency Program by securing much-needed housing for the medical residents while they complete clinical rotations within our region. EAHEC received an AzaHEC grant to expand this program to our northern region of Payson. A local family practice provider, Amelia Pineras, MD, and a local OB/GYN, Cynthia Booth, MD, have agreed to work with these residents and show them the fulfilling aspects of rural practice. Residents will begin rotating with these providers in 2015.

With generous support of the Arizona State Lottery and the relationships that have been built and maintained, EAHEC continues to leverage our funding to provide for the needs of our communities as they are identified. We are grateful for local support from our communities and partners to fulfill our work, our goals and our dreams.



SCRUBS camp students practicing suturing

SCRUBS Camp Piques Interest in Nursing Professions

EAHEC and Eastern Arizona College's (EAC) nursing programs held an innovative SCRUBS camp in Thatcher for 7th, 8th and 9th graders interested in nursing. EAC nursing instructors and nursing students led a diverse group of 23 campers, male and female, through three days of hands-on activities and field trips designed to give students a full range of experiences and solidify their interest in a nursing career.

SCRUBS Camp provided practical experience with basic nursing skills, one-on-one interaction with EAC nursing faculty and current nursing students and an overview of career opportunities in the field of nursing. Campers learned how to check vitals on a patient and received training in CPR and suturing. Simulated arms gave the students an opportunity to learn how to set an IV line and draw blood. Two different activities utilized peaches and chicken thighs to teach students how to administer IV injections.

Several field trips were incorporated as an integral part of the camp curriculum. Campers visited the cadaver lab on EAC's campus, got a look inside of a LifeFlight helicopter and toured an ambulance with a registered EMT. At the end of SCRUBS Camp, students walked away with new medical skills, a deeper understanding of the nursing profession, a custom scrub top and wonderful memories.

SCRUBS camp students learning how to draw blood

EAHEC Supports Chronic Disease Self-Management and the Healthy Living Program

With the support of EAHEC and the Living Well Institute, Payson offered its first *Healthy Living* program to twenty participants who live with chronic disease. This community workshop is designed for people living with chronic conditions and their caregivers. Whether the health challenge is arthritis, heart disease, cancer, diabetes, asthma, depression or other ongoing diseases, the education and skills taught in this program encourage participants to take a more active role in their health care.

Thirty percent of each workshop session includes time to set a goal, make an action plan, and practice giving feedback from the previous week's successes. Over the six weeks, participants shared renewed hope living with their health challenges. As one participant stated, "Even though I live with a chronic disease, I can still enjoy many of the activities I loved before my health challenge. Before this class, I was limiting my life because I thought I couldn't do anything about it."

At the graduation, participants shared their gratitude and overwhelming commitment to continue meeting as a support group. One participant shared comments from her most recent visit with her family physician and staff: "I went to my doctor, and when she asked me my pain level, I reported it was a 2. My normal pain level, over the last seven years, has always been a 7 or 8. We spent time talking about this class and what I had learned that made such a difference in my energy and pain level...I have taken responsibility for my health...The support from my classmates and the facilitators is fantastic. I haven't felt this good in years. I have my life back."

As a whole, the participants summed up their experiences by agreeing that while the illnesses may not go away, they can still do something about self-limiting behaviors and focus on positive attitudes and healthy habits.



Regional Center Director Reports

Greater Valley Arizona Area Health Education Center (GVAHEC) Activities

Workforce Development Summary - GVAHEC

Type of Program	Number of Participants
Health Professions Students Education	184
Health Professions Continuing Education	2,462
Health Careers Preparation	1,321
Community Health Education	3,643



Patti Taylor, MHA, CHES
Director, Greater Valley Arizona Area Health Education Center

This year GVAHEC reached out to former interns to find out where they are and what they are doing. I was so happy to see responses come in quickly. GVAHEC interns are primarily from public health, nutrition, social work and health education degrees. Here are some of the great responses:

Morgan Anderson interned with GVAHEC as an undergraduate in spring 2013. She is now a program assistant at the Maricopa County Health Department for the Preventive Health Collaborative (MCDPH). She said, *“I wouldn’t be in this position without the opportunities that GVAHEC provided me through their engagement and relationships with partner agencies. My time with GVAHEC and MCDPH solidified my interest in public health, and I am currently in the last year of my MPH program.”*

Noelle Suarez interned with GVAHEC in spring 2012 and is now a nutritionist for WIC at Mountain Park Health Center, Maryvale. Noelle said, *“I have to say it was primarily the experience that I gained from interning at GVAHEC that led me to my current position. Angelina (GVAHEC student supervisor) has a genuine desire to help others [which] is something I still remember.”*

Beki Dodd interned with GVAHEC in fall 2012, and she is now working at St. Joseph’s Hospital as a nuclear medicine technologist. Ted Standage is practicing law, Jesse Sandvik is a health improvement strategist for Cigna, and Ryan Martinez is a resident in the UA College of Medicine Internal Medicine

Residency Program. These are just a few of the updates that were sent. These professionals are all testaments to how community experiences as part of an internship make a difference in future career paths.

Supporting future health professionals is such an important piece of what we do. In 2013–2014, we supported 215 rotations and 184 students; this includes GVAHEC interns and students completing clinical experiences. The GVAHEC interns have opportunities to work in an interdisciplinary environment and with GVAHEC community partner organizations. This year, through the “In-Home Nutrition Program” with A.T. Still University and Banner Health, we increased opportunities for interns and clinical students from A.T. Still to work with patients who were released from the hospital and were identified as having a higher risk of being readmitted. Students spent



GVAHEC intern, Heidi, teaching bike safety at Humboldt School District

one hour a week working with recently-discharged patients in their homes, discussing a heart-healthy diet. GVAHEC has also continued health career education with the Humboldt School District in Yavapai County, giving the interns an opportunity to influence younger students by teaching about health careers and current health topics.

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GVAHEC Report

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The GVAHEC@LifeBridge location in North Phoenix has helped the resource center of LifeBridge Community Alliance to develop a streamlined referral system. The social work interns at that office are learning hands-on how to refer community members to services that include housing, food, access to healthcare and other primary services. At the same time, they are collecting information to help understand what other services are needed to improve the population's health. This is a great experience for students to improve social determinants of health in this community.

GVAHEC's work with high school students was expanded this year. GVAHEC nutrition interns and staff supported the health career class at Combs High School by providing lessons on medical nutrition specific to diabetes and gastrointestinal issues. The students in the class at Combs continued into their four-week clinical rotations over the summer at Banner Ironwood Medical Center to complete their certification as nursing assistants. In 2014, GVAHEC was the host for the Future Health Leaders Camp, held at Grand Canyon University campus with 34 students in attendance. This was the first time GVAHEC was the host, and it really was a great experience. The students were able to visit a cadaver lab, a simulation lab and the Tempe Fire Department's first responders. They were also able to spend time volunteering at the St. Vincent DePaul resource center.



FHL campers visiting the Tempe Fire Department



MA students providing health screenings at a community food drop in Apache Junction

GVAHEC nutrition staff created a “Chopped” lesson plan where students worked in teams to use a food box and make a complete MyPlate meal. Additional activities fostered team building, college preparation and professional networking.

In August 2014 GVAHEC coordinated with Central Arizona Valley Institute of Technology (CAVIT) to bring out 64 medical assistant (MA) students to provide health screenings at the community food drop in Apache Junction. The students provided cholesterol, blood pressure, blood glucose and vision screenings. They also helped with the food distribution. Tiffany Brown, the MA instructor, felt that having the students come out and work with the community was an important part of the MA program. The partnership was so successful that plans are underway to have smaller groups of students come out every month to offer the screenings and help with food distribution.

GVAHEC is working in the Workforce Development Committee of the Phoenix Maricopa Healthcare Workforce Sector Partnership. The sector partnership is developing a virtual database of healthcare workforce supply and demand data in primary care. The information will be used by education institutions and healthcare employers to connect areas of healthcare shortages with healthcare professionals. GVAHEC is hopeful this project will help to reduce the shortages of healthcare professionals in our rural and underserved areas.

It is always great to look back over the year and see all the wonderful work the GVAHEC staff and interns do within our region. There is never a dull moment and it is so exciting to see how the work we do with our future health professionals does really get them excited and into the workforce where they are needed.

Regional Center Director Reports

Northern Arizona Area Health Education Center (NAHEC) Activities

Workforce Development Summary - NAHEC

Type of Program	Number of Participants
Health Professions Students Education	208
Health Professions Continuing Education	4,087
Health Careers Preparation	723
Community Health Education	910



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

Hello AHEC friends, stakeholders, and partners! I am honored, once again, to provide a brief update on NAHEC, which is always an impossible achievement when working with passionate, mission-driven people who work

tirelessly to further our collective mission.

NAHEC had yet another successful year. Here is a small glimpse of the myriad of programs and services we have:

- ▶ Our many youth programs include the Future Healthcare Leaders (FHL) summer camp, the Indigenous Pride Health Workers (IPHW) program, STEM Camp for elementary school students, Health Occupations Students of America (HOSA), Girls on the Run, Skills 4 Workplace Success, In-A-Box, Med Start and many other programs and services for youth across our service area. Collectively these programs work with hundreds of students on in-depth, hands-on health career exploration; academic enrichment; college and university preparation; and leadership development activities.
- ▶ The 2014 FHL summer camp nearly doubled the attendance from 2013. It was held at Grand Canyon University for the first time and featured public health activities, including an outbreak demonstration, creation of a public health service announcement and a volunteer component at St. Vincent De Paul.
- ▶ We launched a partnership with Flagstaff STEM City to provide and distribute “In-A-Box” curricula to 4th through 8th grade teachers in the Flagstaff area. These curricula were developed to enhance students’ preparedness for a career in health by exploring different parts of the human body through hand-on activities.
- ▶ NAHEC worked with the UA Zuckerman College of Public Health in Phoenix to provide hands-on epidemiology activities to students at both FHL and IPHW in 2014.

- ▶ The Girls on the Run program expanded into Yavapai County for the first time, and continued expansion is expected in the coming years. Girls on the Run will be engaging in strategic planning in fall 2014, in the midst of its third season at NAHEC.
- ▶ We pride ourselves on being a teaching health center and developing educational pathways throughout the NAHEC region. Educating our health professionals takes a village, and we are honored to be an active partner in this process.
- ▶ We graduated our fourth class of A.T. Still University (ATSU) School of Osteopathic Medicine medical students, and our inaugural classes have completed or are working on their residency. We are delighted that several of these students are practicing in northern Arizona, and two ATSU students will be joining the North Country HealthCare family in summer 2015, specializing in pediatrics/internal medicine and family medicine.
- ▶ Our family medicine residency program, which will be the only AHEC and community-health-center-owned and accredited program in the state and the only ACGME residency north of Phoenix, is vastly coming together. The inaugural class of residents will start in July 2016. This will be a welcome addition to our pharmacy and dental residency at the Flagstaff campus. We are also working to host internal medicine residents from the UA College of Medicine.
- ▶ Our health provider education and CE/CME programs held hundreds of events ranging from national conferences, regional workshops and specialty trainings on a multitude of topics, such as individual licensing renewal (BLS, ACLS). We are also excited to announce our online Pediatric Advanced Life Support course for practicing health professionals.
- ▶ We continue to coordinate, sponsor, partner on and deliver a multitude of community health programs and services throughout northern Arizona.

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NAHEC Report

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- ▶ North Country HealthCare is collaborating with NAU and ATSU to implement a “Healthy Scholars” program to assist patients with accessing community resources and support. The goal of this program is to improve the health and well-being of patients through a social determinants of health model framework.
- ▶ Our research program received grant funding, developed new academic-community research partnerships and conducted several community-based, clinical and telehealth projects.
- ▶ We are actively expanding our telehealth services through administrative, educational, research and clinical uses. We are excited to be the nexus of innovation when it comes to telehealth, and here is a small snapshot of our partners and how we are doing this:
 - UA College of Nursing, Scottsdale Health Center and NAU School of Nursing; hardware and software acquisition and providing training and ongoing program support developed to aid RNs becoming NPs. Moreover, didactic information will be communicated to students at remote locations.
 - Flagstaff Medical Center; hardware and software acquisition for mobile telemedicine, including remote telestroke.
 - Yavapai Regional Medical Center; hardware and software acquisition to equip a mobile medical clinic with videoconferencing capability.
 - Indian Health Services Winslow/Navajo Nation; hardware and software acquisition and providing ongoing support to enable remote telemedicine services to a number of locations on the Navajo reservation.
 - Native Americans for Community Action (NACA); hardware and software acquisition and providing ongoing technical support in the delivery of remote behavioral health services.
 - ATSU/Flagstaff Campus; providing ATSU student monthly grand rounds didactic presentations throughout each academic year. Students participate locally and remotely; remote students attend via telemedicine or videoconference.
- ▶ Our learning center continues to be an epicenter of health education with well over 150 events taking place in 2013–2014.
- ▶ As a patient-centered medical home, we continue our patient-centered approach and provide unique learning opportunities for our future health professionals. Many of our North Country clinics are formally recognized, and we continue to provide support and technical assistance to other health systems.
- ▶ Through grant funding and partnerships with several hospital and academic organizations, we have developed some innovative interprofessional educational (IPE) models. We are proud of instant successes from our first cohort: former NP, PA and pharmacy students are now officially part of our team!

▶ Now in its second year, our Graduate Nursing Education program provides NP students with a longitudinal experience of rotations through specialties, such as pediatrics and women’s health, pharmacy, telehealth and interprofessional clinical learning labs, case management and patient-centered team-care model building. Here is an overview of this innovative program:



Med-Start students participating in a dissection activity

- NP students work with other interprofessional learners, including pharmacy, physician assistant, and medical students.
- An interprofessional team of health professional collaborators created a curriculum for monthly IPE learning sessions.
- The IPE curriculum focuses on facilitated clinical lab skills and case management exercises where learners share their experience, expertise and critical thinking skills to create and implement effective patient-centered management approaches and plans of care. Exercises include medication reconciliation and patient presentations with group discussion of differential diagnoses and interventions as well as patient goal setting.
- Activities, such as continuity of care experience, include assignment to a chronic care patient for three semesters. Student learners participate as the acting primary care provider under mentorship of NP faculty through monthly primary care visits, home visits, medication reconciliation and patient-driven goal setting.
- Student learners are introduced to team concepts through implementing internal referrals and participating in team discussions (which include the patient) with nutritionists, diabetes educators, behavioral health providers, case managers, pharmacists and other team members involved in the patient’s care.
- NP students spend the majority of their clinical experiences with us; 38 healthcare students participated in IPE activities and events.

These achievements are a small glimpse to show the depth and breadth of what NAHEC is passionate. With our parent organization, NAHEC is creating healthier communities through primary care, education, outreach and advocacy.

Regional Center Director Reports

Southeast Arizona Area Health Education Center (SEAHEC) Activities

Workforce Development Summary - SEAHEC

Type of Program	Number of Participants
Health Professions Students Education	98
Health Professions Continuing Education	473
Health Careers Preparation	1,432
Community Health Education	866



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

The impact of SEAHEC programs resonated throughout our service area and far beyond.

- ▶ In 2013–2014, SEAHEC expanded opportunities through our high school health career clubs to include the rural community of Willcox and urban underserved Tucson’s Pueblo Magnet High Schools. A record number of our seniors went on to college; in a sample of data from two high school clubs, 17 out of 18 seniors reported college enrollment. Eighty-six percent of our students said their anxiety about college life had been reduced after participating in our program.
- ▶ After presenting our program’s quality assurance strategies at the National AHEC conference, SEAHEC received over a dozen requests for our protocol manual and evaluation tools.
- ▶ The impact of training people to go where they are needed is measured through our pre- and post-rotation surveys. Of our health professions students responding this year, 83% expressed an intention to work in a medically underserved area.
- ▶ This year, SEAHEC provided continuing education to health professionals from over 50 agencies with new, innovative and valued programs. A highlight is our work with the fire districts in Santa Cruz County, who have started community paramedicine programs. We have provided training in asthma, chronic obstructive pulmonary disease, mental health first aid and sexual violence, as well as informational sessions on local and state resources such as home health care, behavioral health, adult protective services, Alzheimer’s support groups and tobacco cessation.

Demand for Border Health Service Learning Grows in Leaps and Bounds

Service learning combines activities, contextual reading and intentional reflection. The idea of “service” involves engaging students in genuine activities of a local organization or agency (as compared with a staged learning event or separate assignment). Intentional reflection, which takes place after an activity, guides students through reflection, at both individual and group levels, pulling together the mixture of new information, thoughts and feelings they had during the process. In this way, learning stimulates more questions for future exploration. Transformation takes place in the most unexpected ways and places. In this manner, SEAHEC and partners are inspiring future health leaders to open their minds to service in our communities!

SEAHEC hosted three different service learning courses in 2013–2014 with partners from the UA Colleges of Medicine, Nursing, Pharmacy and Zuckerman College of Public Health. Focuses included the impacts of economics and migration on health in border communities as well as interprofessional learning about diabetes and disabilities in border communities.

Border Health Service Learning Institute: SEAHEC collaborates with the UA Zuckerman College of Public Health and the Arizona Department of Health Services to provide a week-long, graduate-credit field course for public health during the summer. The institute’s goal is to engage public health students in a service learning experience that contributes to reducing the health disparities at the U.S.–Mexico border and at the same time increases the skills level of public health competencies.

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SEAHEC Report

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Interprofessional Immersion for Health Professions

Students: Our newest interprofessional service learning experience took place July 18-19, 2014. The theme of the course was “Building Healthy Communities: Alternatives to Migration.” Participants formed interprofessional teams and explored the collaborative roles of public health, medicine, nursing and pharmacy in globalization, migration and health.

FRONTERA: SEAHEC partners with the UA College of Medicine Office of Diversity and Inclusion (ODI) to create border service learning experiences for students who participate in the nine-week FRONTERA (Focusing Research on the Border Area) program. FRONTERA is a research internship offered to undergraduate, graduate and medical students at the UA. The program’s goals are to promote health services research in border communities while increasing the pool of researchers from underrepresented backgrounds interested in examining health disparities in the border region. Students participating in FRONTERA gain hands-on research training assisted by one-on-one mentoring and reflection.

What Does a Service Learning Course Look Like? FRONTERA 2014

FRONTERA students were once again in Nogales, Arizona this summer to explore health professions opportunities in southeastern Arizona. This year, the group included **two SEAHEC Future Health Leaders club alumni**, Kimberly Escarcega and Raymond Larez, both of Douglas, Arizona. They were among the ten UA health professions students selected for FRONTERA. The group was accompanied by Alejandra Zapien Hidalgo, student recruitment/retention specialist for ODI.

The students toured Cochise Health and Social Services with Beth Hill, director of nursing; Bisbee’s Copper Queen Community Hospital with CEO James Dickson and Virginia Martinez, human resources executive; Mariposa Community Health Center with Joyce Latura, maternal and child health manager; and Carondelet Holy Cross Hospital with Dina Sanchez, senior director of community relations. Students

also participated in discussions led by SEAHEC’s executive director, Gail Emrick, regarding border health issues and services as well as U.S. and Latin American political, historical and immigration issues. A cultural “treasure hunt” of historic and culturally-significant landmarks and features of Nogales provided students with context to reflect on how history and culture informs healthcare service delivery and health issues in rural communities. One student summarized the experience as follows:

“I just want to thank you once again for making our FRONTERA trip such a success! The passion and sincere desire

for better health care along the border, expressed by ... everyone we came in contact with, gave me a desire to consider working in rural border areas, whether that be next year during my gap year or in the future as a physician. Again, thank you for the wonderful experience!”



FRONTERA students touring Copper Queen Community Hospital. Two of the participating students, Raymond Lara (third from right) and Kimberly Escarcega (fourth from left), were in the Douglas Future Healthcare Leaders Class of 2013.



“By the way, my kids loved the Tohono O’odham FHL Camp. My daughter is normally shy and quiet and whatever you guys did it really brought out an even more beautiful side of her, my husband and I could not believe it!” – Parent, GuVo District

Science and Traditional Skills Woven into Future Health Leaders Summer Camp

The Tohono O’odham Nation, in partnership with SEAHEC, hosted a week-long summer camp for SEAHEC’S Future Health Leaders (FHL) Club participants from Tohono O’odham and Baboquivari High Schools. The Tohono O’odham Community College (TOCC) opened its doors to the group of seventeen 9th–12th graders to provide the camp’s base of operations. Overnight stays in the dorms on campus is a step in familiarizing students with a campus environment and alleviating some of the anxiety associated with attending college. Camp participants took part in cultural activities, including the making of a traditional “wato”, a ramada made of mesquite wood as its base and saguaro ribs as its cover. The campers’ families joined them to camp out under the stars to harvest the sweet red bahidaj fruit from the saguaro cactus, processing the fruit to make healthy traditional dishes. Most campers later shared that the bahidaj fruit harvest was their highlight of the summer camp, a symbolic blend of traditional practices and learning about health.

Camp participants also took part in several health careers skill-building activities. They met with health professionals from the Indian Health Services (IHS) and the Tohono O’odham Department of Health and Human Services, learning about tribal health priorities including domestic violence prevention and cancer awareness. Talking with

community health professionals helped campers learn about health careers from a variety of disciplines and perspectives. They also participated in a seminar on suicide prevention hosted by the Nation’s Respect Our Life Project. Another highlight of the camp was when the students, who were touring the community hospital, helped rescue a local woman who was rushed to the emergency room after her car apparently rolled over when she was texting while driving. It wasn’t until after the patient had been treated for multiple “burns and contusions” that the students discovered the “emergency” was staged for their benefit by the Tohono O’odham Health Department and hospital staff, in cooperation with the “car crash victim,” to give the students a taste of life as an emergency room health professional.

For hands-on academic enrichment and skills-building, the campers used campus facilities and learned the steps of scientific inquiry through conducting research on health topics and possible health careers of interest. Guided by a team of anthropology students from the UA Bureau of Applied Research in Anthropology (BARA), they conducted research and presented their findings. Practicing their public speaking skills, each camper shared his/her research and his/her future professional goals with the families and the community at a traditional dinner celebration of the end of a week-long exploration of science, community and learning.

Regional Center Director Reports

Western Arizona Area Health Education Center (WAHEC) Activities

Workforce Development Summary - WAHEC

Type of Program	Number of Participants
Health Professions Students Education	192
Health Professions Continuing Education	805
Health Careers Preparation	1,544
Community Health Education	9,702



Ines Pampara, MBA
Director, Western Arizona Area Health Education Center

Regional Center for Border Health, Inc. (RCBH) and WAHEC are proud of our 2013–2014 accomplishments. The following sections describe some of the highlights.

Nursing Assistant Education in Lake Havasu

RCBH is offering allied health professional education in Lake Havasu. RCBH/WAHEC in collaboration with Mohave Workforce Development coordinated the first certified nursing assistant (CNA) course in Lake Havasu with ten students. RCBH’s College of Health Careers offers the six-week program designed to prepare students for certification as CNAs. The program is licensed by the Arizona State Board of Nursing.



CNA students in Lake Havasu

Medical Coding and Billing

RCBH/WAHEC coordinated a medical coder and biller ICD-10 workshop. Participants learned the new implementation that requires more specificity in billing. The clinical modification represents a significant improvement, including the addition of information relevant to ambulatory and managed care encounters, expanded injury codes and the creation of combination diagnosis/symptom codes to reduce the number of codes needed to fully describe a condition.

HOSA-Future Health Professionals Clubs

The Kingman High School HOSA-Future Health Professionals club recently attended their state leadership conference and competitions to test the skills they are learning in high school.

Student can choose among 58 different competitions at the state level. If they place first, second or third in an event, they can represent the state of Arizona at a national conference and competition.

Representing Arizona from Kingman High were Brett Olson, silver medalist in the home health

aide competition; Brittany Burgess, bronze medalist in clinical specialty – preoperative CNA; Samantha Jacques and Meagan-Ann Baptista, public health – mental illness; and Trudy Massie and Brett Olson, current events in the medical field. Placing fourth in the parliamentary procedure competition were Jonathan Marquez, Spencer Taylor, Skyler Burgess, David Caddick and Daniel Lavertue. Kingman High School had 17 members



Kingman High School HOSA club at a state competition



Kingman High School HOSA club at a state competition

complete the career research criteria for bronze membership. The entire chapter received the honor of “gold medal chapter” for the medical events, medical-related field trips, leadership activities and community service projects they participated in throughout the school year.

Youth Mental Health First Aid

RCBH/WAHEC participated in the Youth Mental Health First Aid (YMHFA) Corps in collaboration with AmeriCorps. In partnership with Northwestern Connecticut AHEC, a member of the AmeriCorps national service network, WAHEC will deliver the YMHFA Corps program throughout WAHEC’s service area. The purpose of the YMHFA program is to educate the public and introduce participants to the unique risk factors and warning signs of mental health problems in adolescents. The program aims to build understanding of the importance of early intervention and teach individuals how to help a youth in crisis or a youth experiencing a mental health or substance use challenge. This educational program was implemented while working with high schools students in WAHEC’s HOSA-Future Health Professionals clubs. Students learned awareness of mental health signs and what to do in an emergency situation. WAHEC had a full-time AmeriCorps volunteer to conduct the YMHFA program.

Our Community, A Healthy Somerton

In an effort to assess the healthcare and social needs of the community of Somerton, RCBH/WAHEC launched “Nuestra Comunidad, Un Somerton Saludable” (Our Community, A Healthy Somerton) healthy lifestyle campaign from April 8 through June 27, 2014. The major goal is to improve the health outcomes of the residents of the City of Somerton, especially regarding proper nutrition, physical activity, weight management and prevention of obesity, diabetes and cardiovascular diseases. RCBH/WAHEC wants the Somerton community to adopt

healthy lifestyles and to embrace healthy living. RCBH has recruited stores, restaurants and schools in the city to promote healthy eating and physical activity. Over 20 local businesses are participating in the campaign.

Bombero Project

In April 2014, RCBH/WAHEC coordinated the Bomberos (fire fighter) Project with the Yuma City Fire Department. Twenty-five fire fighters received instructional and hands-on training in operational fire engines, so they can provide the public with high-quality services and safe methods in emergency matters.

Affordable Care Act

RCBH/WAHEC is co-chairing the Affordable Care Act (ACA) Western Arizona Coalition. The steering committee provides guidance, technical assistance and resources to the regional ACA coalition to educate the general public and public organizations about the ACA. In addition, RCBH/WAHEC has been designated by the Centers for Medicare & Medicaid Services as a designated certified application counselor organization in Arizona. RCBH/WAHEC has certified staff members and volunteers to act as certified application counselors and has assisted with 304 ACA applications and 1,427 Arizona Health Care Cost Containment System (AHCCCS) applications.



Fire fighter training program at the Yuma City Fire Department

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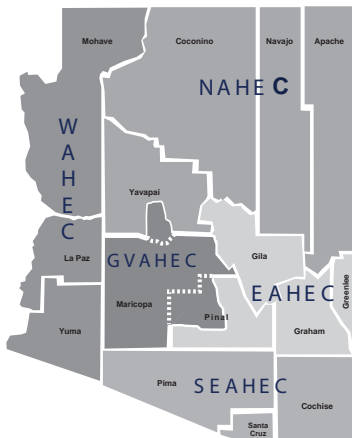
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THE UNIVERSITY OF ARIZONA
Arizona AHEC
Area Health Education Centers

The Arizona AHEC Program is administered through the University of Arizona and is responsible to the Senior Vice President for Health Sciences. The Arizona Health Sciences Centers 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.

Acknowledgements:
Design by Darla Keneston,
AHSC BioCommunications

Special thanks to regional center directors: J. Byrne (EAHEC), P. Taylor (GVAHEC), S. Clendaniel (NAHEC), G. Emrick (SEAHEC), I. Pampara (WAHEC) and their dedicated staff for their contributions.

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