Arizona Health Education Centers
10th Annual Interprofessional RHPP Conference
Poster Presentation
A Community Assessment of Asylees in Arizona
Veronicka Wilson, Eliza Baumeister, Nina Edwards, Ina Sissoko, Katelyn Schleker, Rodrigo Lazcano,
Vanessa Dominguez & Jennifer Navarro
AHEC Undergraduate Scholars 2020-2023

PURPOSE & METHODS:

Purpose:
The purpose of our poster is to report the results of a team-based assessment of the underserved community of the population of asylees living in Arizona.

Methods:
We will be using internet exploration to determine the following information about those granted asylum in Arizona:
- Demographics
- Barriers to care
- Health disparities
- Community assets and resources

BACKGROUND:

Defining the community: Asylees in Arizona
- Immigrants living in Arizona who have been granted asylum status by the United States government because of the immigrant's inability to return to their country of origin due to fear of persecution.
- Persecution based on race, religion, nationality, social group, or political opinion.

Demographics:
- 200% increase in asylees requesting services since 2016.
- Top three countries of origin: China, Venezuela, El Salvador.
- 100% of affirmative asylees from 2009-2018 were granted legal permanent resident (LPR) status.
- In 2019, there were 148 asylum approvals in Arizona.
- 69% of asylees were age 16-44 in 2019, making them younger than average US population.
- 56% of adults are married.

FINDINGS: BARRIERS TO CARE

Economic barriers:
- Population outnumbers the governmental allocated resources.
- Food insecurity.
- Unemployment.
- Unstable housing.

Access barriers:
- Limited of knowledge of the U.S. healthcare system.
- Limited access to medical screenings and vaccinations in country of origin.
- Limited free dental services.

Cultural barriers:
- Language barriers.
- Stigma to treatment of mental illness, low mental health literacy.
- Perceived discrimination.

FINDINGS: KEY ASSETS AND RESOURCES

The Arizona Resettlement Program
- Arizona's Federally Qualifying Community Health Centers
- Resettlement agencies
  - 4 in Tucson, 4 in Phoenix
- Refugee Cash Assistance program
- The International Rescue Committee in Phoenix provides:
  - Food, shelter, clothing, sanitation products, toys, etc.
- Rights of those granted asylum:
  - Medical coverage for 60 days, preventative health screening within 60 days, case management & medical services that are culturally and linguistically appropriate.

HEALTH DISPARITIES:
- PTSD, Depression and Anxiety in pediatric asylees.
- HIV/AIDS.
- Tuberculosis.
- Hepatitis B susceptibility.
- Heavy metal presence.
- Paracitic infections.
- Schistosomiasis.
- Mental health trauma.
- Dental health issues.
- Existing and long-standing health conditions untreated.

Summary:
- Since 2016, there has been a 200% increase in asylees requesting services.
- PTSD, TB, Hepatitis B, HIV/AIDS, dental health issues and untreated health conditions are common health disparities among asylees.
- Asylees face many barriers including food insecurity, unemployment, lack of housing and language barriers.
- Arizona has many resources such as the Arizona Resettlement Program and the Refugee Cash Assistance program.
- Asylees have the right to medical coverage and this includes coverage for 60 days and case management.

ACKNOWLEDGEMENTS AND REFERENCES

Special thanks to the A2 AHEC Undergraduate Collection浦根：Fady Nosha, Dheona S., PRO-RAC, and Denise Haskins Shabo, PhD, for supporting our research and professional poster creations.
A Community Assessment of People Experiencing Homelessness in Arizona

Gisselle Caballero NAU SDH, Emily Carlson NAU SDH, Jasmine Ceballos NAU SDH, Emily Compton SNUA, Riley Kuderca SNUA, Jason Kilpatrick SNUA, Alivia Wester SNUA

PURPOSE AND METHODS

Purpose: The purpose of this presentation is to report the findings among the community of people experiencing homelessness in Arizona through a team-based assessment.

Methods:
- Key Informant Interviews
- Internet Research
- Observations

BACKGROUND

This population includes all homeless people in Arizona. Homelessness can occur due to a multitude of reasons, including the pandemic being a major cause. Arizona ranks #12 for the highest homeless population in the U.S. 1

DEMographics

- As of January 2020, roughly 580,000 people were experiencing homelessness in the U.S. 2
- Arizona ranks 11,000 people experience homelessness. 2
- Minority groups typically experience homelessness at a much higher rate than others. African Americans make up 13% of the overall population, but nearly 40% of the homeless population. This may be attributed to higher unemployment rates with lower incomes and less access to healthcare. 3
- Over 24,389 students in enrolled in public schools in Arizona are experiencing homelessness. This is an annual increase of 5% in the number of students since 2005. 4

FINDINGS: KEY ASSETS/RESOURCES IN AND FOR COMMUNITY

Arizona has worked with community partners to fund services and programs with the goal of ending homelessness. Resources available to those living with homelessness include:
- Case management services
- Health care services 4
- 277 current soup kitchens 5
- Supportive services for veteran families 5
- Employment programs
- Veteran Affairs Support Housing 5
- Short-term rental assistance

ACKNOWLEDGEMENTS

Patricia Goldsmith MS, RN, PHNA-BC
Denise Muesch Helm RDH, MS, EdD

FINDINGS: BARRIERS TO CARE FOR THOSE EXPERIENCING HOMELESSNESS

- Putting off healthcare due to psychological barriers like self-consciousness about hygiene and appearance 7
- Language barriers make communicating more difficult
- Transportation is difficult to obtain 7
- Low health literacy makes it more difficult to access resources
- Bus stops can be far away, or do not have stops near the destination
- Transportation access can be expensive
- A higher risk of being uninsured 7
- A likelihood that they are not able to afford medical care
- High cost of healthcare
- Many do not know where they can get treated

HOMELESSNESS & HEALTH DISPARITIES (IN US)

- 3.4% of homeless population are HIV positive, 3 times higher than the general population. 6
- 53% of toothless homeless individuals have complete sets of dentures compared with 91% of the general population. 6
- Risk of Hepatitis C virus is 29 times higher compared to the general population. 6
- Homeless persons are 12 times more likely to have dental problems than individuals with stable housing 6
- More than 500 people experiencing homelessness died from preventable causes including, overdose, heatstroke, and malnutrition. 1

Summary

Homelessness is a major concern throughout Arizona. Research shows that although there are resources available, there are still many barriers to care for the homeless population. Therefore, lessening the significant health disparities for those experiencing homelessness can only be achieved through minimizing barriers and making resources more convenient and beneficial.

References

1. The University of Arizona Arizona AHEC

Circle the City

A Community Assessment of Prescott City

**INTRODUCTION**

President Abraham Lincoln signed legislation leading to the creation of the Arizona Territory. Gold was discovered by Joseph Redfield Walker in the Bradshaw Mountains. This discovery began a wave of prospectors who flocked to the area, leading to the founding of Prescott on May 30, 1864.

The city was named after William Holcomb Prescott, a historian. Prescott became a beacon for new beginnings, transforming it into a bustling town with many resources, including schools, a new saloon called "Whiskey Row," businesses, and a town plaza. After a downturn in local mining, many residents began to raise cattle.

**FINITE**

Arizona Central Railway began in 1881, and the rail system attracted many people to the area, leading to the growth of Prescott. Today, Prescott has a rich history and culture.

**PURPOSE**

The purpose of this presentation is to report the results of a team-based field experience in the Prescott Community.

**METHODS**

- **Primary data sources**
  - Interview with community stakeholders
  - Engagement in a virtual community introduction and orientation

- **Secondary data sources**
  - Prescott government websites
  - National census data

**FINDINGS**

- **Demographics**
  - Population: 45,754
  - Median Age: 39.5 years

- **Economy**
  - Median Income: $63,750
  - Unemployment: 5.5%

- **Transportation**
  - Bus service from Phoenix to Prescott
  - Limited bus service in and out
  - Lack of sidewalks and bike lanes for residents without automobiles

- **Nutrition**
  - Multiple grocery stores
  - WIC office located near community health clinic
  - Prescott Farmers Market that accepts EBT/SNAP benefits

- **Physical Environment & Electricity**
  - High elevation, cooler than larger cities south of it.

- **Safety**
  - Lower crime rate than the national average
  - Property crime is more common than violent crime

**OUTCOMES**

- **Strengths**
  - Outdoor recreation
  - Strong sense of community

- **Weaknesses**
  - Lack of transportation, limited access to public transportation

**CONCLUSIONS**

Community programs work hard to ensure access to services but have many unmet needs and barriers to be addressed for their residents. Access to social services is limited, transportation is scarce. High incidence of drug and alcohol abuse and low health literacy are common challenges. Additionally, the Prescott community has a lot of public health efforts on fire safety and prevention due to the environment.

**ACKNOWLEDGEMENTS**

- Lavada Munsie
- Melissa Pineda, MAJ
- Carol Nisley, PhD, FNP BC, CNS, FAANP
- Willa Miller
- Carol Lewis, Yavapai Co Community Health Services
- Dr. Matthew Phillips, DMD, PLLC

**REFERENCES**


2021-2023 SAAHEC Scholars Present

A COMMUNITY ASSESSMENT OF SOUTH TUCSON

Purpose
The purpose of the community assessment of South Tucson is to identify problems, issues, or gaps relative to the well-being and quality of life of its residents.

Background

*The People within a City*
- Disenfranchised by COVID and marginalized by the City of Tucson
- An area mostly influenced by Mexican culture
- Strong community presence

Demographics
- Population: 4,632
- Average age: 35.5 years
- Median income: $23,907
- Physical accessibility: 4.2%
- Median household income: $21,279
- Median gross rent: $513
- Homeownership rate: 38.6%

Methods
- In addition to direct observation, we searched books and internet resources to learn more about the history, demographics, and health issues of South Tucson.
- Members of our group participated in a walking tour with local guides and conducted interviews with residents and stakeholders to gather information about the community's needs, strengths, and opportunities for improvement.

Findings

Physical Environment:
- Access to healthcare, transportation, and media outlets is limited throughout the community.
- Lack of green spaces and infrastructure for safe outdoor activities.
- High crime rates and limited access to public safety services.

Health Status:
- A high percentage of adult community members use public health services, and many report a lack of access to healthcare.
- A significant number of deaths in South Tucson are due to heart disease and diabetes.
- South Tucson has lower rates of suicide and moreeworthy achievements than other areas.

Health and Social Services:
- The lack of access to quality healthcare, social services, and community resources is a major concern.
- Patients often choose other health care facilities due to lack of accessibility in the area and the need for specialized care.

Economy:
- Limited access to financial assistance and education programs.
- High unemployment rates and low wages.

Transportation:
- The lack of access to safe and affordable transportation options is a major issue.
- Public transportation options are limited, making it difficult for residents to access healthcare and other services.

Socio-Economic:
- The lack of access to quality education and employment opportunities is a major concern.
- Limited access to affordable housing.

Education:
- Low school attendance rates and graduation rates.
- Limited access to quality educational programs and services.

Politics & Government:
- Weak political representation.
- Limited access to political power.

Community Perceptions:
- Residents feel disconnected from the community and perceive limited opportunities for improvement.
- Limited access to political representation.

Summary

Strengths:
- Close knit community, strong social ties.
- Residents actively participate in community affairs.
- High levels of community engagement.

Weaknesses:
- Limited access to healthcare, education, and employment opportunities.
- Limited access to affordable housing.

Recommendations

- Expanded access to medical care.
- Improved affordable housing options.
- Increased access to community resources and services.
- Development of community-based programs to address issues of health and well-being.

References

For references, email Hunter Lopez.

Acknowledgements

We would like to thank the following individuals for their support and contributions to this community assessment:
- The community members of South Tucson
- Local government officials
- Local health care providers

THE UNIVERSITY OF ARIZONA
Arizona Health Education Centers
A Community Assessment of Yuma, Arizona


Introduction
The purpose of this document is to highlight the challenges and assets of the city of Yuma along with its healthcare system as identified by community members and Western Area Health Education Center (WAHEC) scholars of Arizona.

History and Culture
Yuma, Arizona was founded at a strategic crossing point of the Colorado River in 1853. It is the oldest settlement in Arizona and has been known as the Gateway to the West. Yuma's climate is a key factor in its development, with average temperatures ranging from 70°F in summer to 40°F in winter. Yuma's history is rich with stories of pioneer life, military conflicts, and cultural exchanges.

Economics
- The major industries in Yuma include agriculture, mining, and manufacturing.
- The largest employer in Yuma is the Yuma Regional Medical Center.
- Approximately 70% of the Yuma economy is centered around retail, restaurants, and services.
- The Yuma economy is highly dependent on tourism, with annual visitor spending of $1 billion.

Communication
- Yuma is served by two major television stations (KTVK 3, KPHO 5), two radio stations (KJNO 1440 AM, KYEA 990 AM), and a Yuma Morning Star publication.
- Internet and cellular service is available in most parts of Yuma County.

Community Health Resources
- Yuma Regional Medical Center: A community hospital with 131 beds and services including emergency, inpatient, and outpatient care.
- Yuma Family Health Center: A community health center providing primary care services to the uninsured.
- Yuma Veterans Affairs Medical Center: Provides healthcare services to eligible veterans.

Demographics

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Median Income</th>
<th>Median Home Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>100,000</td>
<td>$50,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>2020</td>
<td>101,000</td>
<td>$51,000</td>
<td>$210,000</td>
</tr>
</tbody>
</table>

Health and Nutrition
- Yuma has a food bank that provides food to those in need.
- The Yuma County Food Bank distributes over 2 million pounds of food annually.

Safety and Transportation
- Yuma has a well-developed transportation system, including bus service, bike paths, and trail systems.
- Yuma Regional Medical Center: A community hospital with 131 beds and services including emergency, inpatient, and outpatient care.
- Yuma Veterans Affairs Medical Center: Provides healthcare services to eligible veterans.

References

Acknowledgements

The University of Arizona AHEC Area Health Education Centers
Burnout Rates in Third Year Medical Students Across Medical Education Models

C. Maryssa Spires, MSIV, University of Arizona College of Medicine, Phoenix
Jonathan Cartonsi, MD, University of Arizona College of Medicine, Phoenix

Introduction

Burnout is a significant problem in the medical community and is opposed to the development of medical students and doctors. High burnout rates can lead to decreased job satisfaction, poor patient outcomes, and increased physician turnover. Understanding the factors contributing to burnout is crucial in developing strategies to mitigate this issue.

Research Question

Do differences in medical education models (rural, urban, or LEC environment) correlate with third-year medical student self-reported burnout rates using the standardized Maslach Burnout Inventory (MBI) student survey?

Primary outcome

Burnout scores

Materials and Methods

In a case-control study, third-year medical students (n=58) at the University of Arizona College of Medicine - Phoenix (UACOM) were invited to participate in the study via email for a survey period of November to December 2019. Based on power analysis for this pilot study, we hoped to enroll 30 participants. Self-reported burnout rates were assessed via the Maslach Student Survey and demographic characteristics (race, ethnicity, gender, age, year in medical school) were obtained using an electronically administered survey.

The Maslach Student Survey measures burnout using three components: emotional exhaustion, depersonalization, and personal accomplishment. The survey was designed to assess burnout levels of medical students, with a total score range of 0 to 75.

Study Population

The study population was the cohort of third-year medical students at the University of Arizona College of Medicine – Phoenix. The class was 52% female and 48% male, with mean age at matriculation of 23 years (range: 21-23). The class included 46.3% White, 27.4% Asian, 13.8% Hispanic/Latino, 2.5% African American, 2.2% Native American, 5.0% Other, and 2.5% did not report their race.

Survey Respondents

Of 58 invited students, 5 returned the MBI (8.6%), for a response rate of 28%. Seven male and four female students completed the survey, with respondents ages 24 and 25 (mean=24.3). The survey was completed by 24.6% of students, with a mean time of 20.0 minutes. The survey was completed by 24.6% of students, with a mean time of 20.0 minutes.

Burnout Characteristics

There were no significant differences between emotional exhaustion, academic efficacy, or cynicism scores between rural and urban students (p=0.0879) (Figure 1). In one sample question investigating frequency of "feeling drained from my studies," 7% of respondents reported feeling drained from their studies at least once a week, while 22.0% reported feeling drained from their studies every day at least one emotion of exhaustion (Figure 2).

Nearly 50% reported feeling emotionally exhausted every day and 42% reported feeling drained from their studies at least once a week. These results are concerning and suggest a need for intervention. The study found no significant differences between rural and urban students, with both groups reporting similar burnout rates.

Conclusion

61.5% of surveyed third-year medical students reported experiencing at least one emotional characteristic of burnout, with 35.1% reporting experiencing at least one emotional characteristic of burnout at least one emotion of exhaustion.

Small sample size and survey timing may contribute to the lack of statistically significant differences in student burnout rates based on medical education model.

Although there were no significant differences in self-reported burnout rates in medical students based on their training model, the majority of medical students reported burnout in at least one of the three categories assessed: emotional exhaustion, cynicism, and academic efficacy.

Acknowledgements

We would like to thank:
- Arizona Area Health Education Center (AHEC) for providing funding for the MBI study.
- Dr. William Hetland (UA COM Director of Student Project) for his guidance in the project timeline development.
- Dr. Linda McMillan (President of Mindful Sources, Inc.) for her help with survey design and MBI specific questions.

Figure 1. Most common reasons for burnout among third-year medical students trained in rural or urban areas. Higher emotional exhaustion and cynicism and lower academic efficacy scores are associated with higher burnout rates.

Figure 2. Percentage of respondents reporting burnout by category. Rural medical students experienced higher rates of burnout compared to their urban counterparts.
Flagstaff Transportation as a Social Determinant of Health

AHEC Scholar 2021-2023 Cohort: Loren Begay, Angela Beltran, Erin Burgess, Laney Brown, Stefany Calderon, Jake Edwards, Lauren Erdelyi, Stephanie Farina, Emily Healy, Colin Harkett, Milka Kalajdzic, Sabrina Lamere, Marissa Marzella, Audrey Meggitt, John Wilcox

Lead Mentor: Dr. Violet Swik

Purpose/Methods

The purpose of this assessment is to explore an overview of the Flagstaff community and the gaps in transportation that persist. Our aim is to evaluate the correlation between the community’s social determinants, such as funding, access, safety, and their access to transportation.

Background/History

- Derived from a flag-planting ceremony held on July 4, 1872.
- Located in Northern Arizona and is home to many tourist spots such as Lowell Observatory, Sunset Crater, Walnut Canyon.
- In 1887, Flagstaff became the largest city on the railroad line.
- Establishment of Northern Arizona University in 1899 attracted more people to the community.
- Through a community needs assessment, several concerns were found such as increasing traffic and emissions, lack of availability of transportation resources, housing, and bus stop shelters remodelling.

Demographics

- Income:
  - Median household: $59,746 (in 2019) with per capita as $26,954
  - 15% below the poverty level, with 13% of children falling into this category
- Median gross rent: $1,265
- Monthly owner cost with mortgage: $3,737
- Persons without health insurance: 65.10.4%, with disability 7.7%
- Mean travel time to work: 15.4

Transportation Issues/Barriers

- Overcrowding, Population Growth Traffic: 2001-2017 the population in Flagstaff has increased by 40%, which has led to traffic congestion.
- Limited public access to Flagstaff Public Transportation.
- Outlying communities and access to transportation: Mountain Line bus system has 9 active routes, but bus services that cater around the Flagstaff Pullman Airport, P. Tazlina County Park, or past the Flagstaff Mall.

Transportation and Impact on Social Determinants of Health

- Transportation affects several aspects of an individual’s life. Inadequate transportation contributes to health disparities and inequities. This may involve:
  - For example, the Flagstaff community has planned to move the only hospital to an outer edge location, making it almost inaccessible to those using public transit.
  - New partnerships among healthcare organizations, social services agencies, and public sectors all play a significant role in improving the social conditions that affect this community.
  - Increasing accessibility to public transportation can drive better care and improve health outcomes for individuals reliant on public transit in this community.

Conclusion

- Flagstaff community continues to face transportation challenges despite the available resources.
- Affordable and accommodating transportation system should be emphasized.
- Housing near public transit is increasingly inaccessible for lower-income individuals.
- Hospital relocation poses a huge issue for people who rely on bus systems.
- Transportation needs must be balanced with logistics and funding to provide equitable transportation.

Available Resources

- Mountain Line-Mountain Line Go!
  - Day pass for $2.25/day with unlimited rides or monthly pass
- AHCCCS-Transportation to and from AHCCCS covered services
- Medicare: 100% ambulance reimbursement
- Flagstaff Urban Trails System: non-motorized city-wide trail system
  - 56 miles of paved/hard-packed paths, connected to neighborhoods, shopping centers, schools, or work.
  - At least 50% of population use as means of transportation
- Ride Share: Taxis, Uber, or Lyft

References

[QR Code]
Guide to Delivering Inclusive Sex Education to Adults with Intellectual and Developmental Disabilities
Jennifer M. Sadler, BAN, RN

Background
Problem
- People with Intellectual and Developmental Disabilities (IDD) often DO NOT receive comprehensive sex education (Thery et al., 2018).
- Comprehensive Sex Education protects from abuse, exploitation, and unintended pregnancies (Thery et al., 2018).
- Special Olympics Arizona (SOAZ) developed a grant funded Sexual Education and Healthy Relationships (SEHR) program for adults with IDD to be taught by caregivers, educators, parental/guardians, and SOAZ coaches.

Significance
- American Association on Intellectual and Developmental Disabilities (AAIDD) supports the need for sex education.
- Sex education for people with IDD is successful in a variety of settings.
- People with IDD included in program development.

Evidence Synthesis
- Change in confidence and knowledge.
- Knowledge self-assessment.
- Demographics & feedback.

Project Purpose
To evaluate the impact of the training on facilitators’ knowledge and confidence in delivering the SEHR program.

Methods
Institutional Review Board: ASU expedited status approval.
Setting: SOAZ office or Zoom.
Population: SEHR Program Facilitators: adults who are caregivers, educators, parental/guardians, and SOAZ coaches.
Intervention: 4-hour training on SEHR program led by expert consultants.
- SEHR Program topics: Healthy Relationships & Boundaries, Safety & Violence Prevention, and Clinical Topics.
- Learning objectives/activities in participant workbook and coinciding facilitator manual.
- Trauma informed communication.
- Mandatory reporting.
- Facilitate mock lessons.

Data Collection:
- Pre and post training surveys.
- Change in confidence and knowledge.
- Knowledge self-assessment.
- Demographics & feedback.

Data Analysis:
- Two-tailed Wilcoxon signed rank tests.
- Descriptive statistics.

Results
Significant change in pre- and post-training responses (n=9) for:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Pre (mdn)</th>
<th>Post (mdn)</th>
<th>Z</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Topics</td>
<td>3.5</td>
<td>4.0</td>
<td>-2.04</td>
<td>.041</td>
</tr>
<tr>
<td>Learning Objectives</td>
<td>3.0</td>
<td>5.0</td>
<td>-2.16</td>
<td>.031</td>
</tr>
<tr>
<td>Trauma Informed Communication</td>
<td>3.0</td>
<td>4.0</td>
<td>-2.21</td>
<td>.027</td>
</tr>
</tbody>
</table>

Discussion
Strengths
- Developed by expert consultants, multidisciplinary committee, and adults with IDD.
- Sustainable train the trainer model.

Limitations
- Sensitive topic.

Conclusions
Summary
- Training feedback: comfortable, inclusive environment, enjoyed mock lessons, and connecting with others.
- Equipped facilitators with knowledge & confidence to deliver SEHR program.

Implications
- 9 facilitators piloting SEHR program to ~90 adults with IDD in schools, at home, at SOAZ practice, and virtually.
- Increases access to sex education.

Future Recommendations
- Revisions to be made to facilitator training and SEHR program upon completion of pilot program.
- Offer sexual health programs at SOAZ events.

Acknowledgements
Thanks to Dr. Debra Ilchak, DNP project mentor, Gianna Zola, SOAZ project site champion, & the SEHR committee.

Contact: jmsadla2@asu.edu

This project was supported by the Office of Population Affairs (OPA), in the Office of the Assistant Secretary for Health (ASH), of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling $25,950 million ($25,950) awarded to Project AIDS Research, Education, and Training (ARET) at Arizona State University, 2011-2012. This project was implemented by a local Indicate, not an endorsement by OPA, ASH, or the U.S. Government. For more information, visit the project website.
Housing Assessment and Analysis for Flagstaff, Arizona
NAHEC Scholars 2021-2023 Cohort 2

INTRODUCTION
- 9.3 million Americans benefit from housing assistance. (6)
- Limited access to affordable housing continues to worsen as demand increases due to tourism and an increasing student population.
- Current wait times to access affordable housing can be up to 3 years.
- NAHEC Scholars assessed demographics, availability of housing, and social determinants of health within the Flagstaff community.
- This analysis was completed via community assessment and literature review.

FINDINGS
- Average housing payment is between $1,001 and $2,000 per month.
- 45% of households pay more than 30% of their monthly income towards housing.
- Nearly half (47%) of Flagstaff residents are low-income, earning $55,350 annually.
- Median home sales price in Flagstaff is over $500,000.
- Undersupply of 7,976 housing units.
- Growing homeless population, especially amongst Native Americans.
- Insufficient public transportation leading to long commute times.

PURPOSE
- To identify and assess the current housing insecurity and cost of living concerns in Flagstaff, Arizona.

METHODS
- Primary Data Sources: Community member presentations, windshield/walking survey, and the United States Census.
- Secondary Data Sources: City of Flagstaff 5-year Consolidated Plan and 10-year Housing Plan.

DISCUSSION
The findings indicate housing costs in Flagstaff, AZ are almost 30% higher than the national average; even though close to half the households in the area are considered low-income in monthly earnings (2). High cost burden of housing has negative impacts on the health of individuals and the population (1, 7). This cost burden can lead to homelessness and poor or substandard living conditions, which in turn can increase emergency room visits and hospital readmissions (5). The City of Flagstaff recognizes the crisis of the current housing cost burden to residents and plans to expand programs promoting access to affordable housing. The effects of housing costs have not been assessed in relation to chronic illness, hospital readmissions, emergency room visits, and overall health of the population. Recommendations by this group would be for the City of Flagstaff Housing Section to utilize local resources such as the health department, hospital, and clinics to assess the effect of housing cost burden on the overall health of Flagstaff residents.

CONCLUSIONS
Affordable and low income housing is limited in the Flagstaff area. This can lead to spending significant portions of income on housing, multi-family shared housing, long commute times, and even homelessness. While some resources do exist for those with housing insecurity, it still remains an immense challenge for individuals and families to overcome the burden of rising housing costs. The current proposal by the City of Flagstaff to address this issue is promising; however, more resources may need to be allocated to those currently in need.

ACKNOWLEDGEMENTS
We would like to thank and show our appreciation to NAHEC, North Country Healthcare, Courtney Madden, Victoria Nezkie, and all who helped complete this assessment.

REFERENCES
Follow QR code for list of references used in this presentation.
IDENTIFYING BARRIERS TO CERVICAL CANCER SCREENING IN RURAL WOMEN
Lacey Parkman, MSN, RN

Background

Problem
- 93% of cervical cancer cases preventable (Centers for Disease Control and Prevention [CDC], 2020)
- Cervical cancer primarily affects women 35 to 44 years old (American Cancer Society [ACS], 2021)

<table>
<thead>
<tr>
<th>U.S. Annual Cervical Cancer Cases</th>
<th>U.S. Annual Cervical Cancer Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>14,560 (2021)</td>
<td>4,290 (2021)</td>
</tr>
</tbody>
</table>

Significance
- Federally Qualified Health Center (FQHC) in rural Northern Arizona cervical cancer screening rate is 78% (2020)
- Healthy People 2030 National Initiative’s target cervical cancer screening rate is 84.3% (U.S. Department of Health and Human Services [USDHHS] & Office of Disease Prevention and Health Promotion [ODPHP], 2020)

Evidence Synthesis
- Evidence shows that identifying socioeconomic barriers unique to rural women can improve cervical cancer screening rates (Akinwale et al., 2017; Akinwale et al., 2020; Barrington et al., 2010; Benezra et al., 2010; Fukuoka et al., 2010; Halt et al., 2018; Liu et al., 2017; McClelland et al., 2017; Megna et al., 2005; Moor et al., 2019; Smith et al., 2018; Wang et al., 2011; Yang et al., 2012; Yang et al., 2013).

Methods

- Institutional Review Board: ASU exempt status approval
- Setting: A one-day event called, “See, Test, and Treat” hosted by the FQHC
- Population: Arizona women, uninsured, underinsured, 21 – 65 years old, English or Spanish speaking
- Intervention: An anonymous written intake survey identifying participant demographics, cervical cancer risk factors known, and perceived socioeconomic barriers
- Data Collection: Intake survey
- Data Analysis: Descriptive statistics

Results

- 18 survey responses, final yield (n = 10), with a mean age of 47.5
- Perceived Barriers to Routine Cervical Cancer Screening

- Most participants disagreed with all identified socioeconomic barriers
- A lack of knowledge of cervical cancer risk factors was identified

Discussion

Strengths/Facilitators
- Intake survey applicable for all rural settings
- Surveys provided in-person and collected in one day

Limitations/Barriers
- Inclusion and exclusion criteria was limiting
- Survey responses were self-reported, possibly influencing accuracy of responses
- Survey language needs revision to be more inclusive

Conclusions

Summary
- Survey identified a lack of knowledge regarding cervical cancer risk factors rather than participant perceived socioeconomic barriers to routine cervical cancer screening

Implications
- Routine well woman exams are an optimal time for healthcare professionals to provide cervical cancer education

Future Recommendations
- Development of evidence-based interventions to evaluate the impact of education on routine cervical cancer screening rates

Acknowledgements
- A special thanks to mentor, Dr. Patricia Janicek, faculty, Ren Noorda, site champion, and Kristi Boniella, event coordinator.

Contact Information: ltparkma@asu.edu
Social Ecological Resilience: A Theory for Improving Mental Health Outcomes of Indigenous Adolescents
Christine Hodgson, MSN, RN, CPNP-PC; Ruth Taylor-Piliae, PhD, RN, FAHA, FAAN

Background
- American Indian/Alaska Native (AI/AN) youth plus Canadian First Nations, Métis and Inuit (FNMI) youth are collectively referred to as Indigenous youth for this developing theory.
- Mental health disparities for Indigenous adolescents compared to White adolescents in the U.S. and Canada are at a critical level.1,2
- Anxiety, depression, substance use, and suicide are prevalent.1,2,3
- Compounded by intergenerational physical, emotional, and psychological trauma.4
- Social determinants such as poverty, discrimination, generations of injustices in federal healthcare policies continue.5

Ungar’s Social Ecology of Resilience (SER) Model
- Resilience is a strength-based concept that can address mental health disparities.6
- Resilience = positive outcomes in the face of adversity.6
- Domains borrowed from Bronfenbrenner’s Ecological Models.7
- Individual, Family, Community, Cultural, Societal.8
- Burnett and Figley (2010) empirically tested Ungar’s Model.9
- American Indian/Alaska Native (AI/AN) children under 18 years.
- Data from 51 research articles published between 2010.
- Risk and protective factors by domain: 13% individual, 41% family, 23% community, 10% cultural, 7% societal.

Systematic Review Empirical Evidence Updated
- 80 articles published between 2014 and 2021.10
- 19 qualitative, 54 quantitative, 7 mixed methods.
- Children under age 19 (most were ages 10-19).
- Resilience factors and mental health outcomes.
- Majority of studies used community-based participatory research (CBPR) Findings:11
- Resilience factors extracted were not mutually exclusive: 86% individual, 33% family, 63% community, 50% cultural, 19% societal.

Factors of Resilience for Indigenous Adolescents
- + represents protective factors - represents risk factors

Outcomes
- Improved wellbeing
- Improved symptoms of depression and anxiety
- Decreased prevalence of suicide thoughts and behaviors
- Decreased substance use and risky behaviors
- Increased resilience scale scores

Theory Development Strategies
- Grounded by the nursing metaparadigm of person, environment, health, and nursing12 centered by social justice13
- Concept derivation: expanding, explaining, and refining concepts.14
- Deductive strategies using the work of Ungar15 and Burnett and Figley.16
- Inductive strategies using data from the updated systematic review by this author’s team.17
- Integration of research knowledge, clinical experience in a reservation school-based health clinic, and prior theoretical work.

Indigenous Knowledge
- IK = An epistemology developed over long periods of time by persons whose interactions with their natural surroundings informs everyday life.18
- 574 Federally recognized AI/AN tribes in the U.S.19 and more than 650 FNMI communities in Canada20 each with different beliefs and values.
- Decolonizing health care for Indigenous adolescents may necessitate training health care in a non-Western way.21
- The authors realize their privilege as a white, affluent, older nurses.
- Refinement of model will be informed by consultation with cultural experts and co-authorship with a Native scholar.

Conclusion
- Growing field of knowledge about the factors of resilience for Indigenous adolescents.
- This new multidimensional theory has interdisciplinary application.
- Can guide research and clinical practice.
- Will challenge healthcare workers to identify and repair the systems that sustain health disparities for Indigenous adolescents.

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O’Odham and the Yaqui.
Vaccines for Children providers Hib vaccine ordering practices in rural and non-rural Arizona

Charlotte Archuleta, (MS, MS4), University of Arizona College of Medicine, Phoenix Jennifer Tinney, Program Director, The Arizona Project for Immunization (TAPI)

Introduction

The Vaccines for Children (VFC) program helps provide childhood vaccinations to patients who are uninsured/uninsured, Medicaid eligible, American Indian, or Alaskan Native.

With higher-than-average poverty rates particularly in rural areas) and Hispanic populations compared to the US, Arizona may need more VFC providers.

Research Question

Is there a difference among urban, rural, frontier, and American Indian zip codes in the number of zip codes receiving adequate shipments of VFC Hib (Haemophilus influenzae type B) vaccines to cover the estimated number of children eligible for these vaccines born in these zip codes?

Materials and Methods

A population-based study comparing the ratio of VFC Hib vaccine shipped to the births cohort in Arizona eligible for these vaccines.

2015 VFC shipment data from TAPI was organized by zip codes, which were given designations of urban, rural, frontier, American Indian, or mixed based on Arizona Primary Care Area designation maps. The number of doses shipped was compared to the estimated number of children eligible for vaccination in the shipment year based on ADEH birth data.

2016 VFC shipment data from TAPI was organized by zip codes, which were given designations of urban, rural, frontier, American Indian, or mixed based on Arizona Primary Care Area designation maps. The number of doses shipped was compared to the estimated number of children eligible for vaccination in the shipment year based on ADEH birth data.

Fishers Exact Test was used to determine the likelihood of having at least 11:1 ratio of VFC shipments to estimated doses needed. Fisher's Logistic Regression was used to compute the odds of having at least 11:1 ratio among different zip code designations.

Results

- Overall results: Fishers Exact Test resulted in a p-value of 0.101 when comparing sufficient VFC shipments among all different zip codes. See Table 1.

- Differences between urban and non-urban zip codes: Results comparing non-urban zip code designations (i.e., rural vs. all other designations) and urban vs. non-urban showed non-significant trend towards fewer zip codes with sufficient shipment of Hib vaccines in non-urban zip codes. See Table 2.

- The marginally significant difference when comparing all zip code designations suggests that at least one of the zip code designations may have a different proportion of Hib vaccine shipments needed, i.e. ProportionUrban > ProportionMixed > ProportionRural > ProportionAmericanIndian > ProportionFrontier. Fisher's logistic regression models were then applied to the data which showed a trend toward fewer zip codes with sufficient vaccine shipments in non-urban designations, but these findings were not significant.

Table 1. Comparison of Sufficient VFC Shipments by Zip Code Designation (N = 209)

<table>
<thead>
<tr>
<th>Zip code</th>
<th>Zip codes with sufficient shipments</th>
<th>Zip codes, with insufficient VFC shipments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban, (N)</td>
<td>26 (43.3)</td>
<td>15 (25.4)</td>
</tr>
<tr>
<td>Non-Urban, (N)</td>
<td>37 (41.4)</td>
<td>52 (53.6)</td>
</tr>
<tr>
<td>Rural, (N)</td>
<td>45 (35.4)</td>
<td>39 (46.4)</td>
</tr>
<tr>
<td>Frontier, (N)</td>
<td>27 (27.3)</td>
<td>22 (22.2)</td>
</tr>
<tr>
<td>American Indian, (N)</td>
<td>23 (95.6)</td>
<td>13 (64.1)</td>
</tr>
<tr>
<td>Mixed, (N)</td>
<td>12 (12.3)</td>
<td>24 (24.7)</td>
</tr>
</tbody>
</table>

Table 2. Fisher's Logistic Regression for Comparison of VFC Shipments by Zip Code Designation (N = 209)

<table>
<thead>
<tr>
<th>Zip code designations</th>
<th>Logodd ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>0.153 (0.514-1.515)</td>
</tr>
<tr>
<td>Non-Urban*</td>
<td>0.691 (0.901-1.515)</td>
</tr>
<tr>
<td>Rural</td>
<td>0.782 (0.471-1.320)</td>
</tr>
<tr>
<td>Frontier</td>
<td>0.390 (0.101-1.389)</td>
</tr>
<tr>
<td>American Indian</td>
<td>0.432 (0.124-1.489)</td>
</tr>
<tr>
<td>Mixed</td>
<td>0.443 (0.136-1.395)</td>
</tr>
</tbody>
</table>

Conclusion

Trend toward fewer zip codes in the non-urban category having a 11:1 proportion of shipped vaccines to needed doses, though not significant, suggesting:

- Lack of access to VFC providers in non-urban zip codes and need for recruitment.
- Poor provider understanding of VFC eligibility and who may be eligible in their population and need for education.
- Poor patient understanding of VFC eligibility and who to ask for these vaccines and need for education.

Major challenge and sources of error in this project involved estimating the number of children eligible for VFC and finding zip code designation as no data set matched either. Larger and better characterized data sets might yield more significant findings.

Summary

Better estimates for VFC vaccine eligible populations is needed, especially in non-urban areas.

There may be fewer children with access to VFC vaccines in non-urban areas — suggesting there is a need for:

- Provider and/or patient education on VFC eligibility and availability.
- Increased VFC providers in non-urban areas.
- More research on VFC vaccines and rural health.

Acknowledgments

I wish to thank my mentors Jennifer Tinney and Dr. Jonathan Ormiston as well as Dr. McBride and the entire TP support staff including Chloe Siv and Paul Kanz who assisted with statistics and Kelley Howard who assisted with IRB approval.
Chronic Non-Cancer Pain Management with Alternative Therapies

College of Health & Human Services
School of Nursing
Jaskiranjit Hanson BSN, RN
Faculty Sponsor: Dr. Shelly Vaughn, DNP, FNP-BC

Purpose of Project
This proposed project aims to encourage alternative treatments to manage non-cancer chronic pain. The goal is to reduce the dependence on opioids and overdose by educating providers to educate and promote alternative therapies to patients with non-cancer chronic pain.

Setting and Population
This project focuses on previous patients ages 25 years and older diagnosed with chronic non-cancer pain and treated with opioids from Jan. 2018 to Dec. 2019. The location is a rural health clinic in Show Low, AZ.

PICOT
P: Adult patients 25 years and older in the primary care setting with non-cancer chronic pain who have been on opioid medication for 3 months or more
I: Patients who received educated and tried alternative therapies for non-cancer chronic pain management before initiating opioid treatment
C: Compared to those patients who did not receive education or initiated opioid treatment before trying alternative therapies for non-cancer chronic pain management
O: To encourage providers to educate and promote alternative therapies to their patients with non-cancer chronic pain to reduce the number of patients on opioid treatment
T: 120 clinical hours or approximately 6 weeks

Review of Literature
Articles reviewed for this project were level I, II, and V on the levels of the evidence table. The publication dates of the articles were from 2016 to the present.

Key Points from articles
1. Prescribing opioids can lead to misuse, overdose, and dependency resulting in the increasing frailty rate related to opioid use
2. Alternative treatments for chronic pain management should be considered before prescribing any medications
3. In one of the studies, only one-third of 58% individuals saw a physical therapist
4. Physical therapy has decreased patients’ non-cancer chronic pain while improving their function and quality of life
5. Alternative therapies can be a financial burden for patients; many insurance companies do not cover alternative therapies
6. The researchers found that participants were most motivated to exercise when supervised and held accountable by the healthcare team.

Problem
There has been an increase in opioid prescribing in controlling chronic non-cancer pain in recent years. In the U.S., opioid prescribing has increased from 45.8 million people in 2000 to 89.7 million people in 2010 and continues to rise. Opioids are more often used to manage chronic non-cancer pain than alternative therapies.

Recommendations
1. To achieve maximum treatment adherence, providers should first understand the individual perception of chronic pain barriers to alternative therapies, and the personal and social context in which they experience pain.
2. A strategy practitioners can use to educate patients about chronic non-cancer pain is Imogene Kings’ Theory of Goal Attainment. Kings’ theory can help patients with chronic non-cancer pain grow and develop to attain goals to manage their pain with the care of these three interacting systems: personal, interpersonal, and social.
3. To reduce financial burdens, suggest affordable alternative therapies such as aquatic PT exercises. On the patient’s mobility, offer manipulation, manual exercises, and coordination exercises that can be performed at home.
4. Providers or medical staff should follow up on patients’ adherence and progress on their selected alternative therapy and address any barriers they might encounter.

Conclusion
Primary care clinics are often the first place patients with chronic non-cancer receive treatment for their pain. Appropriate use of long-term opioid therapy should be considered while all pain management alternative therapies available. Reducing the prescribing rates of opioids will decrease the dependency, overdoses, and fatalities related to opioid use. These goals can be achieved when primary health care professionals encourage their patients to try alternative treatments to manage their chronic non-cancer pain. Discussing the literature, data, and the importance of follow-up with providers will promote and address patients’ barriers and adherence to alternative therapies.

REFERENCES

ARIZONA OPIOID RELATED DEATHS

OPIOID DISPENSING RATE PER 100 PERSONS

Primary care clinics are often the first place patients with chronic non-cancer receive treatment for their pain. Appropriate use of long-term opioid therapy should be considered while all pain management alternative therapies available. Reducing the prescribing rates of opioids will decrease the dependency, overdoses, and fatalities related to opioid use. These goals can be achieved when primary health care professionals encourage their patients to try alternative treatments to manage their chronic non-cancer pain. Discussing the literature, data, and the importance of follow-up with providers will promote and address patients’ barriers and adherence to alternative therapies.
Dismantling Structural Whiteness in Health Profession Education
Jose L. Munoz; Beloved Promise, BSN student; Timian M. Godfrey, DNP, APRN, FNP-BC, CPH

Purpose
The purpose is to identify theoretical concepts of Whiteness influencing health profession education (HPE) and provide strategies related to undoing, unlearning, and disrupting institutional Whiteness to address racial inequities in HPE.

Background
• Understanding Whiteness is important to respond to issues related to race and racism in health care.
• Whiteness refers to practices, policies and perspectives that create and enable the dominance of White people and White systems, and the perceived neutrality and invisibility of this dominance.1,2
• By paying attention to Whiteness, health care professionals, educators, policymakers and leaders can consciously work towards disrupting White supremacy within public health care systems and educational institutions, leading to more equitable, anti-racist approaches and practices in HPE.

Strategies
• Make the history of racism, its role within healthcare, and antiracism a central bioethical principle among all fields of healthcare10,11
• Promote racial and cultural literacy that acknowledges racism as a social construct absent of any biological foundation10
• Provide BIPOC centered support that addresses the unique needs of minoritized people in pursuit of higher education and entrance into HPE10
• Listen to, center, and believe BIPOC people’s accounts of racism and white supremacy within and without the healthcare setting12

Conclusion
Helpful strategies are emerging in the literature to de-center Whiteness in HPE, however, there are significant gaps related to research and program evaluation for implemented strategies. More research and action is needed to deconstruct current perceptions of BIPOC and educate on the history or racism and its contemporary effect to achieve a reality of antiracism in healthcare.11,13

Methods
A critical literature review of Whiteness in higher education identified the following theoretical concepts:
• Whiteness and Emotionalilty1-4
• Color-Evasiveness5,6
• Whiteness as Property 7,7,8
• White Institutional Presence9

These theoretical concepts informed a literature search for evidence-based strategies in HPE.

References
Does MBSR help Primary Care Providers with Workplace Stress?

**College of Health & Human Services**
**School of Nursing**
**Daniel M. Collins RN, BSN**

**Methods (for Literature Review)**
- EBSCOHost, CINAHL Plus, Medline, and PsychInfo are the electronic databases that were used to search for from 2016 to 2021. These databases were chosen because of the psychological focus that encompasses mindfulness, compassion fatigue, and burnout in healthcare. The initial search terms included: mindfulness, primary care providers, 'MBSR', burnout', 'compassion fatigue', 'The search limiters were: dates: 2016 to present, full articles, and English language. Inclusion criteria consisted of: publication was academic and peer reviewed study. Publications addressed mindfulness and the compassion fatigue, burnout.
- Scope of Literature Examined: Out of 175 potential journals articles, were 40 were evaluated and 6 were ultimately chosen for this review. The biggest challenge faced was finding relevant and credible information conducted in the appropriate time frame.

**Results of Literature Review**
- Best et al: The pre and post scores for this study were promising in showing the effectiveness of the mobile application, and impact on mindfulness and stress, although the data can be a bit skewed due to the number of participants.
- Santiago et al: This study showed that while MBSR techniques and programs can be beneficial, a strategic approach should be considered before widespread promotion of use.
- Magallón-Botaya et al: This study found that while mindfulness was beneficial in reducing workplace stress and is encouraged due to its versatility, that it should not be the only intervention explored and that trust in the work environment is a large contributor as well.
- Oefe-Dooco et al: suggests that workplace support may be more important than MBSR in the reduction of stress.

**Clinical Problem or Concern**
Healthcare practitioners deal with a variety of challenges on the job including suffering and even death on a daily basis (Santiago et al, 2019).
Primary care practitioners have additional stressors incorporated into dealing with frequent changes to programs, budget cuts, and staffing shortages, the rates turnover have significantly increased and linked to secondary traumatic stress (STS), compassion fatigue, and burnout.

**Population and Setting**
Population- Primary Care Providers (Family Nurse Practitioners, Family Medicine Doctors, PAs, advanced practice students in any of these specialties).
Setting- Any setting where primary care providers deliver care.

**Purpose and PICOT**
- **Purpose**: Systematically analyze the current research on the effects of the use of mindfulness-based stress reduction (MBSR) techniques by family nurse practitioners (FNP), primary care practitioners, and advance practice students to see if it improves provider satisfaction.
- **The ultimate goal and rationale is to improve provider satisfaction. Is there a direct link between provider and patient outcomes in the outpatient setting?**
- **(I)** Will the use of meditation or MBSR help? (II) Improve outcomes in burnout and job satisfaction in Primary Care Providers (NPAs, PAs, MDs, advanced practice students, etc.)
- **(C)** Compared to those who do not use the intervention.

**Next Step to Developing Proposed Best Practice**
- Collaborate with VA's WHOLE Health Employee Program
- Conduct Hybrid groups to facilitate safe spaces for primary care practitioners to gather and share community without reprisal
- Disperse findings to advanced practice students and programs

**Selected References**
Evaluating an Advanced Practice Nurse (APRN) Residency Program via UDS Measures

Olivia Sitton, BS, BSN, RN, CMSRN

Background

Problem 1:
- 3,600+ NPs graduated in 2020 and would benefit from a formal transition process from RN to provider role (American Association of Nurse Practitioners, 2021)
- APRN residency programs are being developed and need feedback

Problem 2:
- Provider capture rates of Uniform Data System (UDS) measures are down

Connection:
- UDS measures are quantifiable to evaluate provider/resident performance

Significance of UDS Measures
- Standardized reporting system for Federally Qualified Health Centers (FQHC) developed by the HRSA that qualifies center for federal funding
- Reflects the impact of health centers on patients/communities via preventative screening and disease management

Evidence Synthesis
- Residencies offer heightened awareness & increase confidence, knowledge, & provider satisfaction scores (Brooks & Fulton, 2020)

Project Purpose
- To evaluate an APRN Residency Program for effectiveness and quality improvement (QI) via UDS measures
- To identify if APRN resident satisfaction (measured in another project) impacts UDS measures

Methods

- Institutional Review Board: ASU & Federally Qualified Health Center (FQHC) Research Committee approvals
- Setting: FQHC in the Southwestern United States
- Population: All providers at the FQHC (n=300); All past and present APRN residents (n=18)
- Intervention: Data extraction and review capture of UDS measures in the EMR from 2019-2021
- Data Collection: UDS data was extracted by the FQHC’s Chief Quality/Medical Informatics Officer and Team from the software analysis program Relevant
- Data Analysis: Statistical tests via Intellectus using one sample z-tests

Results

Statistically significant (stat. sig.):
- Residents performed better on 6 out of the 7 stat. sig. measures compared to the non-resident providers at the FQHC (90 total z-tests)
- Residents performed better on all 19 stat. sig. measures compared to national data (45 total z-tests)

- This FQHC performed better than the national averages
- Residents appear to perform better in their second year compared to their first year

Discussion

Strengths/Facilitators
- The APRN residency program director was enthusiastic about a QI project to evaluate the program’s effectiveness via UDS measures
- UDS measures are reported annually so the Informatics team is experienced with this information

Limitations/Barriers
- Data mining; Determining the most appropriate data for this project
- Limited information
- Growing program with a small number of residents
- Missing national UDS averages for 2021

Conclusions

Summary
- Residents do significantly better capturing UDS measures compared to non-resident providers

Implications
- APRN Residency Programs offer training and support that promotes best practices like capturing UDS measures that reflect quality care for patients

Future Recommendations
- Continue to trend UDS measure capture
- Identify barriers to capturing UDS measures

Acknowledgements

Thank you, Dr. Moffett for all your time and guidance through this project.

Contact Information: ossilton@asu.edu
Evidence-Based Research for Increased for Coronary Artery Disease Disease Among Rural Residing Population with DM2

Joseph Kohout
Northern Arizona University
School of Nursing

<table>
<thead>
<tr>
<th>Clinical Problem</th>
<th>Methods for Literature Review</th>
<th>Proposed Best Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>The overall prevalence of diabetes is 34.2 million people of all ages, 10.5% of the US population. 34.1 million adults aged 18 years or older, 13.0% of all US adults had diabetes (“National Diabetes Statistics report, 2020.”</td>
<td>CINAHL: Limiters: Full-text 2011-2021</td>
<td>The review identified data that suggest motivation for understanding personal struggles, especially for veterans, is the bond formed among members (Schaich, 2020).</td>
</tr>
<tr>
<td>Undiagnosed diabetes is estimated at 7.3 million adults ages 10 or older have diabetes but are undiagnosed, 23.4 percent of adults with diabetes (“National Diabetes Statistics report. 2020.”</td>
<td>COCHRANE</td>
<td>The findings of the study suggest that The power of influence from other members who share a commonality can provide significant healthcare assets for patients lacking close family and, current research appears to validate the properties of peer motivation (William, et al., 2018).</td>
</tr>
<tr>
<td>Effective prevention and intervention methods are needed to reduce diabetes prevalence among US veterans and ultimately improve their health status (Liu et al., 2017).</td>
<td>EBSO</td>
<td>Veterans who live in rural areas of the US most often have varying complications related to chronic illness, access to quality health has shown improvement treatment for diabetic care, but a lack to healthcare access remains prevalent in rural areas (Brown et al., 2019).</td>
</tr>
<tr>
<td>The disparity of increasing barriers to care issue is often related to a lack and reach of appropriate medication, treatment, and education. The disparity also contributes lack of confidence in healthcare services, and often suppresses veteran motivation to participate in their care (Hunt et al., 2020).</td>
<td>Total: 270 articles</td>
<td>Establish potential approach to address patient behavior and encourage self-efficacy in seeking care is peer navigation for people with diabetes (Brown et al., 2019).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population Setting</th>
<th></th>
<th>Optimum Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 34 million Americans affected by diabetes mellitus.</td>
<td>Limitations: ages 35 to 70</td>
<td>Interventions UPNPCAN/MISA MA on the routine of maintaining contact with at risk veterans.</td>
</tr>
<tr>
<td>Seventh leading cause of death.</td>
<td>Limiters: Full-text 2011-2021</td>
<td>Follow-up would ensure progress and the monitor adherence to care. All providers should consider instilling all options that can benefit the patient in maintaining quality control in their diabetic care.</td>
</tr>
<tr>
<td>In 2017 diagnosed diabetes had an estimated economic burden of $337 billion in the U.S. (Hunt et al., 2020).</td>
<td>EBSO</td>
<td>Quantified survey would provide feedback and adjustment for optimum practices.</td>
</tr>
<tr>
<td>Racial/ethnic minorities face considerable barriers to accessing health services, including living in communities with scarce primary health care providers, they are less likely to have a consistent source of care. (Wong et al., 2019).</td>
<td>Total: 115 articles</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Results of Literature Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of this study is to review the literature, examine current evidence as to how disruption of care (DMC) can lead to cardiovascular illnesses among rural living veterans, civilians. In addition to find an alternative social reach programs that can segment treatments, but also to provide EBP information to enhance care and treatment compliance.</td>
<td>66 Full-text articles abstract screened</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PICOT</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are 35 to 75 year old residing veterans (patient population) who have type 2 diabetes (Intervention) compared to those who do not have diabetes (comparison) at increased risk for a Coronary Artery Disease (outcome)?</td>
<td>Brown, E. A., Hart, M. C., Waidelich, E., Naylor, D. J., Auer, M. N., &amp; Carrington, M. (2019). Rural demographic disparities in type 2 diabetes and intervention related chronic health care: Diabetes Care, 42(7), 472-479.</td>
</tr>
</tbody>
</table>
Improvement of Pediatric Vaccination Rates in a Rural Clinic Setting Amid COVID

College of Health & Human Services
School of Nursing
Sharon Caravetta
Faculty Sponsor: Shelley Vaughn

Purpose of the Project
Implement evidence-based clinic practices that will improve the clinic processes and staff confidence to address vaccination hesitancy and vaccination compliance in pediatric patients and contribute to a safer and healthier community by reducing vaccine preventable disease.

Problem
Multiple pandemic-related reasons for falling behind on routine childhood vaccinations have been identified and include areas such as overwhelmed healthcare systems, inequities in healthcare delivery, financial recession and job losses, long-term school closures, disruptions in transportation systems and travel restrictions as well as caregiver concern of exposure to COVID in medical settings (Olusanya et al., 2021).

Clinical Question
Can providing education for clinic staff regarding incorporating practices and resources for chart review, caregiver education and engagement and the use of presumptive commination enhance vaccination compliance and bring patients that are behind up to date on their routine vaccinations?

Conclusion
The implementation of these practice may provide improved protection for the health of these patients individually from vaccine preventable diseases, as well the community via enhancing herd immunity. A post-presentation questionnaire was presented to staff post educational presentation. Key findings are summarized below.

- 100% of the clinic staff identified the correct example of presumptive education.
- 100% of the clinic staff identified correct charting procedures for vaccination refusal.
- 100% of the clinic staff either "agreed" or "strongly agreed" that practices and resources presented will be useful in improving their ability to communicate more knowledgeable with parents/caregivers regarding childhood vaccinations.

Proposed Best Practice
Incorporating Practices for Chart Review
Data maintenance in eClinicalWorks
- Assign a champion
- Delegate monthly queries in eClinicalWorks
- Utilize student resources

Promoting Caregiver Education and Engagement
Caregiver Education
"Vax Fax" binder for quick reference
Encouraging Engagement
- MyIRMobile app.
- Imbedded CDC links on clinic website
Improving Accessibility
- Infection control & cleanliness of rooms
- Drive-up / parking lot vaccinations
- Evening appointments
Patient Reminders
- Creating appointments reminders in eClinicalWorks

Presumptive Commination
- CDC algorithm for communication with caregivers
- Refusal after algorithm:
  - CDC handout "If You Choose Not to Vaccinate Your Child, Understand the Risks and Responsibilities" handout
  - "AAP's Refusal to Vaccinate Form" should be signed and scanned into the patient's EMR

Review of the Literature

Setting
Rural primary care clinic in Payson, Arizona

Patient Population
Pediatric patients in a rural family practice clinic
Improving Colorectal Cancer Screening Rates

Collge of Health & Human Services
School of Nursing
Facility: Solis-Cumming
Faculty Sponsor: Dr. S. Vaughn

Purpose of the Project

Review the current evidence-based strategies to improve Colorectal Cancer screening.

Problem

- Colorectal cancer rates have increased by at least 15% in the past 16 years (Barzi et al., 2017).
- Colorectal cancer accounts for about 50,000 deaths per year in the United States (Coronado et al., 2017).
- Colorectal cancer screening rates are about 67.3% in the United States (DeGroff et al., 2018).
- It is estimated that 94% of new colorectal cancer patients are over 45 years old (USPSTF, 2021).

Clinical Question

PICO question:
- P- asymptomatic patients between 45 and 75 years old
- I- find evidence-based strategies to get patients to complete screening
- C- patients completing screening or no screening
- O- percentage of patients compliant with screening guidelines

Proposed Best Practice

- Using motivational interviewing when discussing screening with patients (Hussain et al., 2021).
- Live phone call reminders (Coronado et al., 2017).
- Screening champion in every clinic (DeGroff et al., 2018).
- Utilize EHR to “flag” patients needing screening (DeGroff et al., 2018).
- Training all staff members how to discuss screening and providing visual reminders in the clinic regarding screening (Hussain et al., 2021).
- Explaining the options and risks to the patients before offering testing (Brenner et al., 2016).

Conclusion

It is vital to include all clinical staff in this process for consistency, to provide visual reminders to patients, and explain the options and importance of screening to the patients. This will enable patients to understand that screening for colorectal cancer increases their chances for finding it at an earlier stage with better outcomes.

Review of the Literature

A search was performed utilizing the CINAHIL search engine for “colorectal cancer screening and patient compliance” for full text, English language, 2016-2021, peer reviewed articles. This search yielded 81 results, of which 15 were chosen for review based on their relevance to the topic.
Lung Cancer Screening in Rural Primary Care

Purpose of the Project

- Educate providers, nurses, and medical assistants about the current lung cancer screening (LCS) guidelines and the importance of early detection of lung cancer (LC).
- Enhance the clinic screening workflow and ordering process that is used to identify LCS eligible patients.

Clinical Question

Does modifying the screening questions and/or PCP ordering process for (I) adults ages 50 to 80 (P) for LCS current USPSTF recommendations expand the number of high-risk patients identified and increase the number of LDCT scans ordered (O) in rural health compared to the current primary care practices (C)?

Proposed Best Practice

- USPSTF current recommendations are for annual LCS with LDCT in adults ages 50 to 80 years who have a 20 pack-year smoking history, and either currently smoke or have quit within the past 15 years.
- LDCT screening is more beneficial than harmful in high-risk patients and is the only available screening strategy recommended for LC prevention.

Problem

- Most patients have no symptoms until the late stages of LC, when treatment is more difficult and survival rates are lower.
- Only 15 percent of LC cases are diagnosed at an early stage while approximately 70% are diagnosed at an advanced stage.
- Recognizing LCS eligible patients in primary care is challenging. Unlike colon, cervical, and breast cancer screening, LCS requires a complex risk-based screening model.
- Uptake of ordering low dose computed tomography (LDCT) for LCS are particularly low in rural underserved populations.

Review of the Literature

High level evidence:
- LDCT screening significantly reduces both LC and all-cause mortality in high-risk individuals.

Moderate level evidence:
- Patients state that having a PCP recommendation is a major facilitator for deciding to screen with LDCT.
- Shared decision making is vital for patients to decide about LCS.

Low level evidence:
- Clinical barriers to LCS are lack time, resources, competing priorities, system obstacles, and no organized LCS protocol or order set in place.

Patient perspectives
- Many LCS eligible patients state that their provider did not propagate a LCS discussion.
- Most patients would rather get a LDCT scan and endure the screening risks over the possibility of missing cancer.

Conclusions

- Despite the expansion of AZ’s Medicaid to cover patient’s LCS cost, AZ’s rate of identifying high-risk LC population is a low 2%, which is significantly inferior to the national rate of 6%.
- The national LCS with LDCT rate was 4.5% in 2015. The national goal is 7.5% by 2030.
- Recommend the facility to use point-of-care reference materials about LCS to increase patient knowledge of the benefits and harms of LCS, and to decrease burden on the provider.
- Recommend delegating medical assistants to ask screening questions to reduce provider burden.
- Recommend adding LCS to the Azara, along with the other cancer prevention screenings.
- Recommend creating a reminder system and/or prompts within the EHR for nurses to remember to collect and complete smoking history on a specific subset of patients and alerts the patient as “high-risk” in the EHR.

References:
PARENTING SKILLS EDUCATION: PARENTS CAN PREVENT ADOLESCENT SUBSTANCE USE

Amber Allen, BSN, RN, CPN

Background

Problem
- Substance use and its collision with the opioid epidemic has become a forefront cause of unintentional injury and death in teens

Significance
- Substantial national increases between 1999 - 2019 in teen, opioid-related: Emergency room visits - Hospital and intensive care stays - Deaths (Bharucha et al., 2016; National Survey of Drug Abuse, 2016)

Evidence Synthesis
- Strongest predictors of youth substance use
  - Adverse childhood experiences (ACES)
  - Poor mental health (CDC 2016)
- Interventions that show the most significant prevention effect are family-focused such as: Parent-child communication - Parental monitoring - Increasing child resilience (Gottlieb & Schonert, 2017; Mull-Nisbet et al., 2015)
- Prevention efforts in teens should focus on total substance abstinence, not merely opioid use prevention (Bharucha et al., 2016)

Project Purpose

To facilitate a parenting course for parents of adolescents living in high-risk circumstances that statistically contribute to substance use

Methods

- Institutional Review Board: ASU exempt status approval
- Setting: A transitional shelter for families in an urban area
- Participants: Parents of a teen between 11 and 16 years, who have experienced family homelessness
- Intervention: Teen Triple P Online - an evidence-based online positive parenting course delivered through six 30- to 60-minute interactive modules. Participants completed modules from home over a 6-week period with weekly text and email support from program facilitator.
- Data Collection: Each parent completed:
  - Demographic Questionnaire
  - Pre- and post- Conflict Behavior Questionnaire (CBQ) (r = 0.86)
  - Pre- and post- Depression, Anxiety, and Stress Scale (DASS-21) (r = 0.71 - 0.81)
- Data Analysis: Two-tailed paired sample t-test

Results

<table>
<thead>
<tr>
<th>Participants Recruited</th>
<th>Completed 24 Modules</th>
<th>Completed All Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4 (66%)</td>
<td>2 (33%)</td>
</tr>
</tbody>
</table>

We Completed
- Pre-Test: Mean Depression Score = 5
- Mean Anxiety Score = 12
- Mean Stress Score = 10

Post-Test: Mean Depression Score = 3
- Mean Anxiety Score = 2
- Mean Stress Score = 8

<table>
<thead>
<tr>
<th>DASS-21</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
</table>

w = 0.05  p = 0.05  p = 0.05
- w = 0.05  p = 0.05  p = 0.05
- w = 0.05  p = 0.05  p = 0.05

Discussion

Strengths/Facilitators
- Parenting program facilitated is evidence-based with 35+ years of studies and trials confirming efficacy
- Online format was easy to deliver and accessible to participants from anywhere
- Sustainable intervention that has individual, family, community, and national impact

Limitations/Barriers
- Small sample size (6 participants)
- 66.6% Attrition Rate
- No follow-up

Conclusions

Summary
- Interventions that decrease conflict and mental dysfunction of parents directly impacts major family factors that contribute to adolescent substance use.
- A decrease was found in every negative indicator in the CBQ and DASS-21, unfortunately a small sample size did not allow for significant results to be reported

Implications
- Broader implications for clinical practice, healthcare professionals, and organizations are that substance use prevention starts in adolescents, and at the family level

Future Recommendations
- Implement in a larger population and including longitudinal follow-up of substance use variables in adulthood

Acknowledgements

Thank you to Dr. Jonathan Holmen, project mentor; Tabitha Fisher, site champions, Cricket Mitchell, Triple P Coordinators; and Prevent Child Abuse Arizona.

Contact Information: aallen@asu.edu
Pre-Diabetes: Lifestyle Changes Vs. Metformin

Purpose of the Project

- The purpose of this project is to compare progression to Type 2 DM after treating pre-diabetes in adult patients with Metformin versus lifestyle changes.
- Pre-diabetes is an A1C value between 5.7% to 6.4%
- Education provided to providers and medical assistants on pre-diabetes and the current treatment guidelines for pre-diabetes. A survey was completed post-presentation.

Clinical Question

In adults patients diagnosed with pre-diabetes, does prescribing metformin lower A1C values compared to only doing lifestyle changes?

Proposed Best Practice

- Per the American Diabetes Association (2022) metformin should be considered especially in patients aged 25–59 years with BMI ≥ 25 kg/m², higher fasting plasma glucose (e.g., ≥ 110 mg/dL), and higher A1C (e.g., ≥ 6.0%), and in women with prior gestational diabetes.
- Lifestyle changes encouraged for patients who don’t meet the above criteria, goals are 150 min exercise/week, 7% weight loss initially (ADA, 2022).
- Standards of Medical Care in Diabetes—2022
- Guidelines for Primary Care Providers
  - https://doi.org/10.2337/cd22-s001

Problem

Approximately 38 million American adults have prediabetes (CDC, 2020), 2,387,000 people have prediabetes between Arizona and New Mexico (ADA, 2021). In Graham County, AZ 9.9% of adults are formally diagnosed with diabetes (da Silva et al., 2019).

Setting

- Literature review is of adult patients in and out of the United States
- Chart review Adult patients at the Gila Valley Clinic (GVC) in Safford, AZ

Patient Population

- Literature Review: Adult patients diagnosed with prediabetes.
- Chart Review: 434 adult patients at GVC

Review of the Literature

- Participants from the original Diabetes Prevention Program Study (DPPS) were followed from 2002-2014. 27% DM reduction in the lifestyle prevention group, 19% reduction in the metformin group (DPPS, 2015).
- After a 15 year follow up, the group that benefitted the most with the use of metformin to prevent Type 2 DM were individuals with higher fasting blood glucose and A1C values and individuals with a history of gestational diabetes (DPPS, 2019).
- 137 adult participants with pre-diabetes explored the long-term effects of exercise during a 2-year period (Dai et al., 2019). Results found a 7.4% reduction in the progression to Type 2 DM. All types of the exercise were effective in achieving the results (Dai et al., 2019).
- Teng et al. (2013) looked at a wide variety of factors that lead diabetes prevention in adult patients with A1C values ranging from 5.5–6.6 from the upper North Island of New Zealand, there were 14,043 participants. Main findings of this study included progression to Type 2 DM was lower with metformin use and that higher education and working full-time or part-time are protective factors (Teng et al., 2019).
- A chart review was completed at the Gila Valley clinic which focused on patients who were diagnosed with diabetes. There was many prediabetic patients in this clinic. Results from this chart review included 54 adult patients ages 18-63 with pre-diabetes are on metformin, 360 adult patients ages 19-99 with pre-diabetes are not on metformin.

Intervention

- Average score of post-presentation survey was 90%

Conclusion

- There is mixed data regarding lifestyle changes and metformin use for treatment of pre-diabetes.
- It is imperative for providers to understand that both are effective and when to prescribe metformin.

References

- https://doi.org/10.2337/cd22-s001
Prevention of Human Papillomavirus
Tiffany Rogers RN, BSN
Faculty Sponsor: Shelley Vaughn, DNP

Problem
What is Human papillomavirus (HPV)?
- HPV is sexually transmitted virus
- The virus can cause infections and precancerous lesions in the male and female genital areas, oropharynx, and skin.
- The virus is transmitted via skin-to-skin contact (Centers for Disease Control and Prevention, 2018).

Why vaccinate against HPV?
- Vaccination at an early age can prevent these health conditions in both males and females before they become sexually active (Oliver et al., 2015).
- HPV vaccinations have proven to be effective in preventing related infections and cancers (Centers for Disease Control and Prevention, 2015).

Problem: the knowledge of the patients and parents may have some questions about the benefits and side effects of the HPV vaccination.

Purpose
- Determine if providing additional education to adolescents and parents on the purpose of the HPV vaccine would increase the rate of vaccinations in the primary care setting.
- Present additional patient information directly from the CDC online, "Talking to patients about HPV vaccines."

Discuss the following:
- What HPV is. Why the vaccine series (three doses) is needed. Why the vaccine series should be completed by age 11 to 12 years old. How the vaccine works. What are common side effects?

Providing additional education on the purpose of the vaccine, when to get the vaccine, and side effects of an HPV vaccine in the primary care setting may positively increase the rate of and success of vaccination, allowing prevention measures before the patient is potentially exposed to the virus.

Relevance to Primary Care
- Vaccines are important in primary prevention in the primary care setting.
- The first HPV vaccine was approved by the Food and Drug Administration (FDA) in 2006.
- Though female it is the case, adolescents (and parents) have not been sufficiently educated on why the vaccine is so important to obtain during adolescence. Regularly scheduled immunizations are critical. Even though these vaccination rates are not at a child's regular immunization schedule, parents should be seeking information on the purpose of the vaccine, the immunization schedule, and not reaching the vaccine, and the appropriate timeframe to give the multiple doses (Ferrari, 2011).
- A survey conducted across the United States in 2008 showed that only half of female adolescents and less than a quarter of male adolescents initiated the full HPV vaccine series (Oliver et al., 2015).
- Increasing education to adolescents and parents in the primary care setting could potentially increase the facilities to get the vaccines to stop in preventing these diseases.

Discussion: will include overcoming barriers and the fact that there are advances such as intercessions and past in the introduction of the benefits of the vaccine extending those efforts (Markel & Greenberg, 2017).

The providers taking the survey may see the education super targeted and provided and recommend the HPV vaccine be beneficial in increasing the number of vaccines that prevent young ages (Park et al., 2017).

Surveying the Staff

Survey
1. There are three types of HPV vaccine, which include all three types protect against:
   a. Types 6 and 11 (genital warts)
   b. Types 16 and 18 (cervical cancer)
   c. Types 45 and 52 (vulvar, vaginal, and anal cancer)
2. How often is the HPV vaccine currently offered?
   a. Yearly
   b. 10-12 years old
   c. 13-14 years old
3. Is the vaccine for males or females?
   a. Female
   b. Males
   c. Both a & b
4. How many doses are included for full vaccination?
   a. Three dose
   b. Two doses (if both doses were given before age 13)
   c. Three doses (if both doses were given between 13 months apart, after the age of 13 or if they have a weak immune system)
   d. Both a & b
5. What is the recommended age range for the HPV vaccine to be given?
   a. 16 years old
   b. 12 years old
   c. 20 years old

References
The bridge of Tonto Basin, a Rural community with limited healthcare access

Aleja Armenta, Christine Davis, Leah Gawin, Demiana Kolta, Logan McDermott, Dessa Montoya, Jocelyn Noreiga, Nneka Onyia, Yong Pan, Michelle Raney, Hannah Tolson, Dominique Villaiba, Maribel Wellwood, Sammy Zimmerman.

**Introduction: Tonto Bridge**
- 1980 feet long, height of 50 feet above water (estimate), 40-ft-wide multi-span AASH/TO precast concrete girder bridge with raised sidewalk over Tonto Creek
- Expected to improve 1-1/2 miles of existing deficient road
- Sidewalk with two lanes each way
- Shorter commute time
- Increase connectivity to employment and promote access
- Long route around adds 50-60 mile detour on 4-wheel drive, rough road with washes that can be washed out, takes a toll on your vehicle
- Government provided funding
- Gila County is the Project Sponsor
- Construction to be administered by Arizona Department of Transportation (ADOT)

**Timing:**
- Started turning dirt, March 2022
- Estimated start, October 2022
- Goal completion date, Fall 2024

**Problem: How to help the community**
- Getting medical access and medication to the residents on the East Side of Tonto Basin
- Increase regional safety by providing access for residents requiring healthcare, emergency care
- Helps EMS get across into Tonto Basin
- Providing health care to Tonto Basin residents
- Bringing care in Tonto Basin from outlying areas like Payson

**Intervention: How is the project going to address the problem?**
- Ensuring the $74,999 grant from Banner Health designated for the underserved population is appropriately allocated
- All-in-one kit package that provides a cell phone with hotspot capability
- Via Telehealth med with interpreting service
- Satellite/cellular access via Starlink
- Cellular bandwidth (reliable)
- Starlink (Elon Musk Foundation), Proposed telemedicine site option of the Department of Transportation on East side of the creek for telehealth kits
- Ewing Trail (alongside creek)
- Containerized medical clinic (possible option for storage)
- Telehealth kits can include scale, (bilingual) blood pressure monitor, pulse oximeter, 2-lead EKG, glucose testing supplies, hemoglobin A1C testing, covid testing, patient education brochures, and iPad (to communicate data with a provider)
- One kit costs ~$600
- EKG 2-3 leads is an additional ~$250
- Continuing the use of drones to deliver meds
- Stored on the east side with a retired med who will set up the visits for patients
- We can offer medical care, counseling, and consultation
- Acquire 1,100 kits over time

**Map of city and proposed bridge:**

**Cities that will have one kit:**
- Tonto Basin
- Young
- Strawberry
- Faris Lakes

Retired Med will distribute kits to the public when appointments are made. Example of kit.

**Outcome of proposal while bridge is being built to provide healthcare to residents of Tonto Basin:**
- $74,999 grant for kits that include pads, hotspots
- Two all-in-one kits located in Tonto Basin
- If needed, more kits can be checked out from Payson
- Use satellite for connection
- No charge for patients
- Starting with COVID health issues
- Will implement overall health in year two
- 1100 kits projected
- 300 kits in house now

**Conclusions:**
- Increased access to healthcare
- Improved safety
- Starlink access
- Telehealth in home
- In home medical visits/counseling/consulting
- Collaborating care with the Christian Clinic

**Acknowledgements:**
- Business Health - grant donation for telehealth initiative
- Raney Robinson - KPMR radio, Moderator
- Michael Behrens - Director Fire Manager Officer for Tonto Basin Tonto Creek Bridge Project, FY 2020 BUILD Discretionary Grant Application
- Lt. James Haubelt-Payson Police Department
- Allan Michael, MD - Medical Director of PPHC Foundation Medical Center
- Rebecca L. Gaffney - rhollough@foundationmedical.com
- Tricia Taylor - rhollough@foundationmedical.com
- Shareen Carnevale - rhollough@foundationmedical.com