Fall 2022



Introducing the Julia Jones Matthews School of Population and Public Health

> Inside: What is Population and Public Health?

Public Health and Community Action

Addressing Complex Global Health Threats Locally

A Publication of the F. Marie Hall Institute for Rural and Community Health

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FROM THE PROVOST //

Preface: The Julia Jones Matthews School and the Future of Texas Tech University Health Sciences Center



Dr. DARRIN D'AGOSTINO

PROVOST

Dr. Darrin D'Agostino, D.O., MPH, MBA, is the Provost and Chief Academic Officer for Texas Tech University Health Sciences Center. The Julia Jones Matthews School of Population and Public Health (SPPH) presents exciting new opportunities for Texas Tech University Health Sciences Center, our students, and the communities we serve.

The sixth school in the TTUHSC family, SPPH offers every graduate of TTUHSC the opportunity to earn a degree in public health and will develop additional degree programs and training to support the growing communities of West Texas.

SPPH is a vehicle for true interprofessional education and collaborative healthcare, presently offering three joint degrees – the MD/MPH (School of Medicine), the PharmD/MPH (School of Pharmacy), and the MPA/MPH (Masters of Public Administration at TTU).

We are developing additional joint degrees, with the aspiration of partnering with the TTU College of Engineering and School of Veterinary Medicine in the field of One Health.

As you read this issue of the *RHQ*, you will meet a few of our faculty members who have written inspiring pieces. Our hope is that you will see that our dreams are as large as West Texas and bold enough to lead us into an exciting future.

FROM THE PUBLISHER //

Population and Public Health: The Julia Jones Matthews School and the F. Marie Hall Institute for Rural and Community Health



Dr. BILLY U. PHILIPS, Jr.

PUBLISHER

Center.

Dr. Billy U. Philips,

Jr., Ph.D, MPH, is the

and Director of the F.

Executive Vice President

Marie Hall Institute for

Rural and Community

Health at the Texas Tech University Health Sciences

He is currently the Acting

Dean for the Julia Jones Matthews School of

Population and Public

Health at TTUHSC-Abilene

For the past six months, Sarah Looten and I have been working to lay a foundation for the Julia Jones Matthews School of Population and Public Health (SPPH), which is located on the TTUHSC Abilene Campus. We have spent about half of our time in Abilene, completing tasks that require the synergies afforded by physical presence. It is very important work, albeit sometimes challenging.

I could not have performed these duties without the support of the fabulous staff of the F. Marie Hall Institute for Rural and Community Health. Sarah Looten, every time, and Jill Russell, when we needed her very keen legal brain, have been at my side and done things that I could never do. The rest of our crew carried on because they are a strong, motivated, and solid group of people.

We worked diligently during the COVID-19 pandemic to build resilience into the fabric of our culture. Our team is led by a nonhierarchical philosophy, meaning we are all leaders and follow the skills and knowledge of any team member who can help produce our best effort. That philosophy and the people who carried it out helped with the School in various other ways. For that support, I am very grateful.

My teammates lived our values, especially One Team and Kindhearted. We couldn't do anything without that type of commitment and the trust they have in each other and in our culture. They truly are committed to the possibilities in our future.

What are those possibilities? They start with understanding both aspects of the SPPH: Population Health and Public Health. This issue of the *Rural Health Quarterly* is devoted to understanding these allied disciplines that are distinct, but each essential to the future of health among our communities.

Traditionally, public health is about protection, promotion, and prevention. We saw many examples of each over the course of the COVID-19 pandemic. We know that social determinants of health (SDOH) like education, social and community context, health care and access, economic stability, and neighborhood and environmental circumstances have profound, widespread, and long-lasting impact on health risks and outcomes.

We also know that in the future we must move to achieve the triple aims of healthcare – improved health, better care, and lower costs. We will use the burgeoning amount of health information that is generated at an astounding pace with new technologies in pursuit of those goals. Some call this the age of Big Data.

Just today I had lunch with several hospital administrators and they were abuzz about how to measure SDOH. I asked them why they were so concerned with doing such a

thing. As it turns out, payers for Medicaid and Medicare patients are especially interested in SDOH as we move into a risk-based contracting and pay-for-performance arrangement with hospitals, clinics, and some types of primary care providers.

I learned that many are providing preventive services like immunizations, nutrition and weight management, substance use and mental health counseling, transportation vouchers, and telehealth as ways to increase access to care. Some are even using remote patient monitoring to better manage and produce improved outcomes for chronic conditions like diabetes and congestive heart failure.

The conversation quickly turned to the SPPH and questions about whether we were going to teach students about tracking patients across the care continuum and if we could produce maps of disease "hot spots," or help them identify areas that lacked things like mammography machines and the like. You can imagine the field day I had as I talked about why they all needed to enroll in the SPPH.

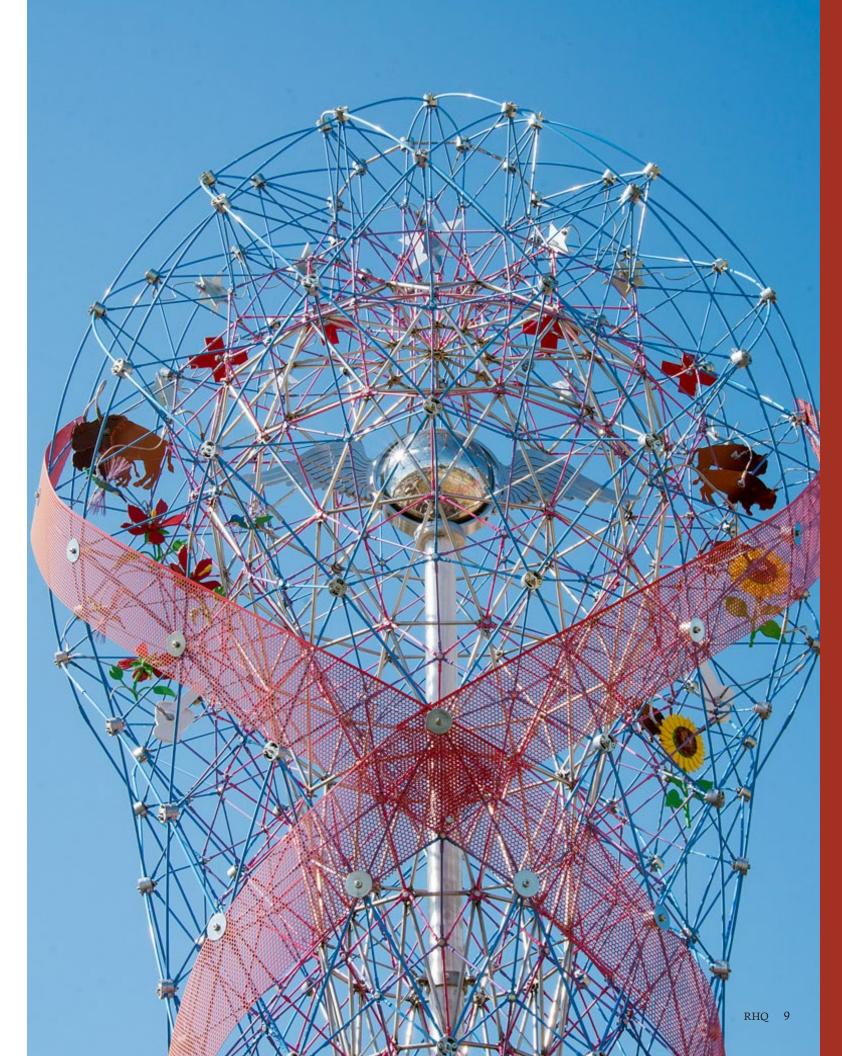
As I drove back to my office I thought how odd life can be; thinking about the years I preached preventive medicine and why public health degrees are essential for every health care provider, and having those messages often fall upon deaf ears.

I am blessed to be at this point in my career and am thankful that TTUHSC has prioritized offering their students in every field, specialty, and program the opportunity to learn and practice these new must-have competencies that go with managing population health and public health. The future is bright because we have a shot at eliminating health disparities of every kind and with every person right where they live, work, and play. Are you excited yet? I am.

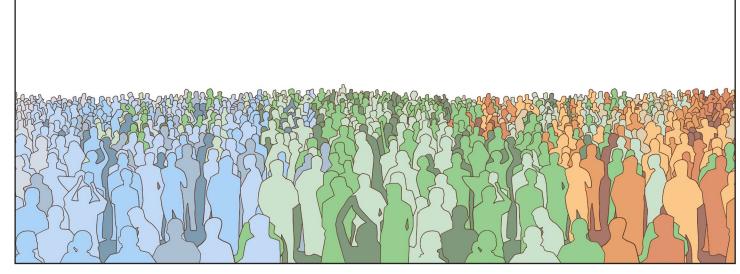


TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER...

Julia Jones Matthews School *of* Population *and* Public Health



COVER STORY



What is Population and Public Health?



AMBER PARKER

LEAD WRITER

Amber Parker is the Lead Writer for the F. Marie Hall Institute for Rural and Community Health at Texas Tech University Health Sciences Center

What is Population Health?

We all know someone who never goes to see a doctor unless they're sick or hurt, but how many illnesses could be prevented by simply changing the way the world looks at health? That's the aim of population health, a relatively new concept in healthcare. Populationbased healthcare goes beyond granting access to healthcare. Rather, it focuses on the system established to improve the health outcomes of a group of individuals.

Population health is important to healthcare, specifically rural healthcare, for three reasons. "If something is important to us, we measure it. If we measure it, then we change it. If we change it, then we aim to improve it," says Billy Philips, PhD, MPH, Acting Dean of the Julia Jones Matthews School of Population and Public Health at Texas Tech University Health Sciences Center in Abilene, Texas.

"Population health is a philosophical shift," he said. "I believe all kinds of health providers have implicitly been concerned with the outcomes of what they do. Doctors go by the adage of 'first do no harm' as an example. The problem with that is it's based only on one patient or a series of patients over time that these impressions are formed as outcomes. By focusing on populations, we can get a much more reliable estimate of outcomes."

Population health scientists work to resolve issues that drive poor health outcomes through interdisciplinary approaches that connect practice to policy.

They use information and data tools from multiple disciplines, such as informatics (how people, technology, and data interact (e.g. electronic medical records or patient portals)), demography (the study of statistics such as births, deaths, and income levels), statistical modeling, and similar fields to better understand different conditions and improve the health and wellness of communities on local, national, and global scales.

Population health efforts can help groups of any size that share similar socioeconomic, geographical, or clinical situations.

It might be a community with lead-tainted water or an entire country dealing with the effects of an ongoing drought.

Population health requires understanding the population's health risks and social determinants of health, such as income, education, family support, and access to healthy food.

Population Health vs. Public Health

Population health is not just another term for what we know as "public health", but the two disciplines work together for the good of communities.

The Centers for Disease Control and Prevention (CDC) defines **public health** as working "to protect and improve the health of communities through policy recommendations, health education and outreach, and research for disease detection and injury prevention."

On the other hand, the CDC says **population health** gives "health care systems, agencies, and organizations the opportunities to work together to improve the health outcomes of the communities they serve."

In more simple terms, public health focuses on the scientific

process of preventing diseases or conditions, while population health covers improving health while also reducing health inequities between groups of people.

Understanding the evidence provided by population health scientists and intervening for better outcomes by public health practitioners is a focus of both disciplines.

Data Crunching

Scientists working in population health pore over large data sets to identify populations in need of care, measure the care provided to those populations, and deliver care to people in need.

The data could be the rate of heart disease or cancer for a particular region and how it relates to air quality exposures and smoking behavior. The idea is to unravel the complexities of interrelationships of factors to better understand root causes.

Ideally, population health scientists then work with policymakers, informing the necessary changes to not only make lives better but to save them as well.

Most of the data used in population health comes from the government, health care providers, and insurance companies. Population health scientists use this information to help the community as a whole.

For example, suppose a local hospital wants to reduce the number of people hospitalized or dying from heart disease. The numbers show which patients

have heart disease and among those who have gone to the ER for a heart attack or stroke.

That information may then be considered in conjunction with prescriptions, including which patients are following their doctor's instructions and how it may have affected the person if they ended up in the hospital.

Population health scientists say government data from all levels federal, state, and local-can show if outside factors contributed to the number of heart disease cases in a particular area.

That information might show areas of food deserts—neighborhoods where people don't have easy access to healthy food choices. The data may also show areas that may need more walking paths or parks so people can easily get daily exercise.

The Role of Health Disparities in **Population Health**

According to Healthy People 2030, Social Determinants of Health (SDOH) are grouped into five domains: Economic Stability; Education Access & Quality; Health Care Access & Quality; Neighborhood and Built Environment; and Social and Community Context.

Examples of SDOH within these domains include safe housing, transportation and neighborhoods, racism, discrimination and violence, education, job opportunities and income, access to nutritious foods, physical activity, polluted air and water, and language and literacy skills.

Based on those domains, County

Health Rankings ranks each county on the overall health of the county's residents.

Much like SDOH, health disparities include mortality, life expectancy, the burden of disease, mental health, uninsured and underinsured, and lack of access to care.

According to County Health Rankings (countyhealthrankings.org), a combination of health behaviors, social and economic factors, physical environment, and clinical care can lead to health disparities.

Dr. Philips added that populations are varied when it comes to many factors including culture, ethnicities, access to care, or responses to care.

"If we do not have data scientists who can tease out those differences, then public health and other health care providers can not address the differences, which is critical to eliminating health disparities that are very prominent in rural health," he said.

Neither population nor public health efforts will be successful unless there's a focus on social justice and working to eliminate health disparities, which the CDC says adversely affects groups of people who systematically experience greater obstacles to health care based on factors such as their race, gender, or income levels.

All About Saving Money

According to the National Rural Health Association, the

top priority driving the focus on population health is the billions of dollars spent on healthcare in the United States that is "not producing the value desired in terms of the impact on overall health".

Population health is not just about keeping people as healthy as possible, it also aims at saving money at a time when Americans are paying more for just about everything.

Healthcare facilities use population health to improve patient health while working to keep patient cost low.

A 2019 study from the Johns Hopkins Bloomberg School of Public Health found Americans spend more on healthcare per capita than any other developed nation, and it's only going up as Americans grow older.

In fact, the number of Americans age 65 and older is expected to double from 52 million in 2018 to 95 million by 2060.

In a 2004 report on disease management, the Congressional Budget Office (CBO) examined how population health programs could help reduce costs. The report focuses on three different approaches.

The first one looked at the claims history of patients enrolled in a particular health insurance plan. Researchers were looking to find people who may have undiagnosed conditions such as diabetes.

The CBO said this "minimizes the chances of missing beneficiaries who might gain from the intervention but also could incur substantial costs for serving individuals whose conditions might have

remained stable or been well managed without the intervention."

Using people enrolled in the same health insurance plan, the second approach used statistics to try and predict which patients needed intervention or who faced massive medical bills in the future.

While this limits the number of people involved and reduced the cost of the services, just how well it works depends on the accuracy of the predictions.

Finally, the CBO said the third approach is the least cost-effective method. It takes a wait-and-see approach to disease management.

Treatment only starts after the patient is already racking up medical bills, such as long-term hospitalization. In this approach, the CBO wrote the intervention may cost more to start.

The Importance of Population Health Programs

Many population health programs search for ways to improve patient satisfaction while also boosting the health of the overall population.

If more people are healthy, they can lead long and accomplished lives. It also helps improve society as a whole.

So instead of focusing on treating illnesses, population health programs focus on prevention and wellness.

Population health is an ever-changing field as it continues to grow in significance.

Experts say that understanding populations in specific healthcare systems is one of the most important aspects of this discipline.

In a 2020 article in The American Journal of Managed Care, researchers wrote that population health programs play two roles.

First, it is the foundation of a strong healthcare system. It also works to improve public health while cutting the risks in a valuebased system.

It is important for healthcare organizations to have relevant information about their patients to better serve them.

Dr. Philips said we all benefit from population health efforts.

"People have always had their own standards for outcomes. Of course, they have been subjective and so we want to make them much more objective and thus more evidence-based," he said.

"I think that is what gives people more confidence in public health recommendations as we have seen most recently in the guidance around COVID 19."

Dr. Philips added that people should appreciate the value population health efforts add to the overall health care system. "If they do, then they will more likely follow them, and the outcomes, over time, will be better."

References

Anderson, G. F., Hussey, P., & Petrosyan, V. (2019). It's still the prices, stupid: Why the US spends so much on health care, and a tribute to Uwe Reinhardt. Health Affairs. doi: https://doi. org/10.1377/hlthaff.2018.05144.

Appold, K. (2020). Confused about population health? You've come to the right place. Managed Healthcare Executive, *30*(10).

https://www.managedhealthcareexecutive.com/view/confusedabout-population-health-you-vecome-to-the-right-place.

Bakshi, S. et al. (2021). The essential role of population health during and beyond COVID-19. The American Journal of Managed Care, 27(3).

Buck, S. et al. (2015). Population health in rural communities. National Rural Health Association Policy Brief. https://www.ruralhealth.us/ getattachment/Advocate/ Policy-Documents/Population-HealthinRuralCommunitiesApril2015-(1).pdf.aspx?lang=en-US#:~:text=Population%20 health%20encompasses%20a%20 cultural,the%20social%20determinants%20of%20health.

Congressional Budget Office. (2004). Analysis of disease management programs. https://www.cbo.gov/sites/ default/files/108th-congress-2003-2004/reports/10-13-diseasemngmnt.pdf.

Hartley, D. (2004). Rural health disparities, population health, and rural culture. American Journal of Public Health,

94(10) doi: 10.2105/ajph.94.10.1675.

Healthy People 2030 (U.S. Department of Health and Human Services, 2021) https://www. healthypeople.gov/2020/about/foundation-health-measures/Disparities.

Rural Health Information Hub. (2019). Rural Health Disparities. https://www.ruralhealthinfo.org/topics/rural-health-disparities.

Smith, L. (2021). What is population health management? Southern New Hampshire University. https://www.snhu.edu/about-us/ newsroom/health/what-is-population-health-management.

Wachler, A. (2019). What is population health management? Phreesia. https://www.phreesia. com/2019/01/30/what-is-population-health-management/.

HEALTH **EDUCATION**

Public Health and Community Action: Five Quick Questions with Cathy Hudson, AHEC Director



CANDICE CLARK

EDITOR

Candice Clark is the Editor-in-Chief of the Rural Health Ouarterly for the F. Marie Hall Institute for Rural and Community Health at Texas Tech University Health Sciences Center.



CATHY HUDSON

DIRECTOR

Cathy Hudson is the Director of T-CORE and the West Texas AHEC for the F. Marie Hall Institute for Rural and Community Health at Texas Tech University Health Sciences Center For this issue of the Rural Health Quarterly, I sat down with Cathy Hudson, director of the West Texas Area Health Education Center (WTAHEC) for the F. Marie Hall Institute for Rural and Community Health, to get her perspective on public health.

Cathy received a Master's degree in Public Health in 2017, and is currently pursuing a DrPH degree.

I asked her Five Ouick Ouestions on Public Health that covered her time as a student, how public health has fared in a post-COVID-19 world, and what public health can do for rural healthcare initiatives.



Tell me about your time as a student in the Public Health department. Why did you pursue a degree in Public Health?

A lot of different reasons. I was accepted into the program in 2014 and I graduated in 2017. It was an exciting time because it was a new program. It had its challenges, but it was really exciting.

To pursue public health at the time, I wasn't really familiar with it early on. I had the

traditional aspirations to become a doctor and all that kind of stuff and then life happened and so that ended up not being the route for me to take.

Discovering public health was really a godsend for me, because it was a way for me to marry my passions.

To be able to still do research and explore and investigate health-related matters, but it was also a way to make a difference in people's lives because the focus of public health is not on just the individual, it's on the population or community as a whole.

Public health to me was a way of making a greater impact.

How does your time as a student in PH affect *vour work now?*

My studies gave me the tools that I needed, and gave me a different perspective on things. It helped me to look at the work that we were doing at the Institute a little differently.

We are really concerned about health disparities and how to address those things, particularly in rural communities and underserved communities, but it just gave me a different set of tools to do evaluations and assessments and things like that.

Okay, so what has changed in public health since you were a student?

The real question is *what hasn't changed*

since the COVID-19 Pandemic.

Because public health wasn't a career that was well known. Most people think you go to the health department to get your vaccinations and whatever, but nobody really thought about it.

I don't think it was as prominent as it is now because of the pandemic. We got to see public health brought to the forefront because of the importance of prevention, emergency response, and equitable delivery of healthcare.

Speaking of the vaccine, they were trying to make sure that everybody had access to it, and not just those that traditionally had easier access. It was widespread, and so I think the pandemic was both good and bad for public health.

Again, we got to see it in action in trying to get a handle on this pandemic, but there was some negative that came out of it because we were trying to get a handle on the pandemic and get it under control. People saw the measures that were put in place as an imposition of their personal rights, and so there was good and bad that came out of it.

I think, career wise, you have both sides. We have people that are exploring public health as a new career choice, but then we have folks leaving public health because of the experiences that they had during the pandemic.

Why is public health itself important to rural and community health?

Rural communities experience challenges and disparities just like other communities, but I think because of their rurality, their disparities and challenges are a little unique.

It's important to understand, to do those assessments to understand what's really going on that's different in rural communities. A lot of it has to do with workforce, a lot of it has to do with access to care.

How can we use public health to improve rural health care? You talked about access to care lessening disparities, but how can we overall improve?

I think it just boils down to those same things that I mentioned. Collect the data, understand what's going on.

We need to do better in health education within rural communities, just like we would anywhere else, but particularly in rural communities. Then we've got to implement disease prevention measures. I think that goes along with health education. We need to look at the structures that are in place that may be prohibitive.

To create optimal health outcomes, we need to make sure that we employ all of those factors in combination, not in silos, not separately, but in combination, so that we can address health disparities in rural communities appropriately.

Public health is important. It is important because, like I said earlier, traditional healthcare focuses on the individual, but I think we can make a greater impact on public health by focusing on the community as a whole. We can change the health behaviors of an individual, but I think if we can change the health behaviors of the community, it has a greater impact.

health **RESEARCH**



Using Social Determinants to Address Public Health Issues



Dr. JEFF DENNIS

ASSOCIATE PROFESSOR

Dr. Jeff Dennis, Ph.D is an Associate Professor in the Department of Public Health at Texas Tech University Health Sciences Center-Abilene. He also directs the Applied Practice Experience for the Master of Public Health program. My graduate training in sociology fostered in me a strong understanding of how our society, surroundings, social networks, and demographic characteristics are associated with our health and well-being.

In a normal conversation about my work, I note that most people, including highly educated individuals, assume that the vast majority of our health comes from a combination of genetics and the lifestyle choices we make. On a national level, discussions of health in the public sphere may focus on access to health care, particularly through the lens of health insurance and the Affordable Care Act, often colloquially referred to as "Obamacare."

My teaching, research, and public health practice more often approach this topic from an "upstream" perspective, meaning that I focus on how built and social environments, educational attainment, gender, and other social characteristics have a much stronger association with health and well-being than most of us recognize on a day-to-day basis.

By no means do I deny the role of genetics and lifestyle in health outcomes, but my perspective suggests that a variety of upstream social factors have downstream effects on our health behaviors.

Although health insurance is a vital piece of healthcare, and access to health services is an essential component of public health, the study of social determinants indicates that health outcomes are frequently driven by far more than healthcare access.

To illustrate, the average American visits the doctor a little less than three times per year. Factoring in one to two hours each visit, we spend around six hours in the doctor's office and 8,754 hours outside of the doctor's office every year.

During those eight thousandplus hours, our health is impacted by our diet, activity levels, built environment, chronic stressors, health literacy, social relationships, occupational hazards, and the policies and laws that dictate the choices we make about lifestyle and healthcare.

Health insurance is only one small component of the totality of factors that comprise our well-being.

Having the health literacy to understand beneficial and risky health behaviors, and just as importantly, having the resources to make meaningful lifestyle changes to improve one's health are complex and fundamental elements of our well-being that health insurance alone cannot change, particularly in the short-term.

The relationship between education and health is not confined to direct knowledge about healthy diets and behaviors.

Education also frequently provides better income, insurance, sick leave, and locus of control, a concept that indicates how much agency an individual perceives him/herself to have over day-to-day activities.

The accumulation of resources that education provides may help individuals seek out healthy behaviors and more effectively avoid health risks.

I am currently involved in a project to help create sustainable public health connections in a community of Guatemalan-born residents in the Texas Panhandle.

Many of these individuals work on dairy farms, in feedlots, in meat processing plants, and other agriculture-related industrieswork that requires hard manual labor and long shifts.

Compounding these conditions, public health workers are often seen as outsiders, making opportunities for connection within the community limited.

While my work in the Texas Panhandle was prompted by a desire to improve COVID-19 vaccination rates, we have also discovered that lack of basic necessities impact the community's ability to connect with health services.

Basic differences exist in the healthcare system in the U.S. and Guatemala, and we have learned that some individuals may lack an understanding of how to obtain prescription medication in the U.S. Further disparities exist in terms of access to and knowledge of eye and dental care in the U.S.

Language poses the biggest barrier to reaching this population. Whereas Spanish translators and Spanish public health materials are readily available, a majority of the Guatemalan immigrants speak K'iche', a language of Mayan origins.

At least five dialects of K'iche' exist in Guatemala, and informal conversations with community partners in Hereford suggest that most of these dialects can be found among the Guatemalan community in the area.

In our discussions, community partners have noted that individuals from the Guatemalan community may bring someone with them to healthcare appointments who speaks Spanish and K'iche', because providers are likely to have intake forms in Spanish and have individuals who can then translate Spanish to English.

Engagement with school districts in the area is also important to public health efforts. A longstanding record of public health research acknowledges a strong relationship between education and health.

Facilitating collaboration between schools and community partners to support the children of the Guatemalan immigrant community is an important step to elevating health outcomes in the long-term.

The children who go through the U.S. school system become important connectors for their community social network, particularly when they are fluent in both English and K'iche'. As vaccine hesitancy looms as a growing public health issue, our group is working to build trust in this community before encouraging vaccine uptake. Trust in healthcare is a luxury many Americans take for granted, but for individuals from minority language groups, the healthcare system may appear intimidating and difficult to navigate.

The high cost of uninsured healthcare in the U.S., particularly when language differences pose barriers to communicating justification for the costs, contributes to distrust in the healthcare system.

As barriers to healthcare services for vulnerable populations are removed, efforts to increase vaccine uptake may be much more effective when vaccines are simply a part of more regular engagement with preventive health services.

Sustainability of public health efforts is essential to perceived or measured success.

Providing a vaccination to an individual, connecting them with healthcare services, or educating them on health behaviors may have a direct and tangible impact, but providing these items singularly and then disappearing from the community at the conclusion of the project makes the odds of a success quite low.

Bearing this in mind, our aim is to build lasting connections between the community and public health and healthcare resources, and, more importantly, to build trust that may foster a long-lasting and favorable relationship with service providers.

Removing barriers to public health resources has much more potential for broad and long-term impact than connecting a single individual with healthcare services.

We recently received IRB approval to conduct surveys of the healthcare needs in this population, which we hope will provide insight into issues and concerns that may be less frequently mentioned.

Further, sustainable health education materials are essential to making long-term change in the health and well-being of the Guatemalan community.

In some cases, this may mean translating written health education materials into K'iche', but to ensure that the information is more widely accessible, we aim to develop educational videos by fluent K'iche' speakers to improve health literacy on the healthcare system and basic public health services.

Fostering connections that remove barriers to public health resources, improving culturally appropriate educational content, and building trust in the public health system are lofty but vital long-term goals of our project.

I would be remiss not to mention my colleagues in this work. Our team includes faculty members Dr. Theresa Byrd and Dr. Julie St. John from the TTUHSC Julia Jones Matthews School of Population and Public Health, Department of Public Health, staff members Liesl Wyett and Erika Carrillo, and TTUHSC medical student Kelsey Sprinkles.

Just as our work with the community requires a diversity of partners from different sectors, each of these individuals brings valuable expertise to our team and increases our chances of making a meaningful and sustainable impact.

Public health successes are often a story of community engagement rather than individual accomplishment, and my hope is that we can play a small role in connecting the community base toward the long-term goal of improving health outcomes across the Texas Panhandle. Ashman, J. J., Rui, P., Okeyode, T. (2019). Characteristics of office-based physician visits, 2016. NCHS Data Brief, no 331. Hyattsville, MD: National Center for Health Statistics.

Clark, E. M., Williams, B. R., Huang, J., Roth, D. L., & Holt, C. L. (2018). A longitudinal study of religiosity, spiritual health locus of control, and health behaviors in a national sample of African Americans. *Journal of Religion and Health*, 57(6), 2258-2278.

Romero, S. (2009). Phonological markedness, regional identity, and sex in Mayan. *Variation in Indigenous Minority Languages, 25*, 281.

References

health **REPORT**

Public Health: Populations, Purpose, Priorities, and Passion



On a cool January morning in 2015, I drove my children to school in Anson, TX, the county seat of rural Jones County, which is just north of Abilene. I had worked in academia and public health for about 13 years and started as an assistant professor with Texas Tech University Health Sciences Center in the preceding September.

Dr. JULIE ST. JOHN

ASSOCIATE PROFESSOR Dr. Julie St. John, Dr.PH, MPH, MA, CHWI, is an Associate Professor in the Department of Public Health at Texas Tech University Health Sciences Center-Abilene. That morning was similar to other mornings. My son Josiah, who was nine years old, asked what I had planned for the day. I told him I had a presentation to give to the Pensadoras Women's Club in Abilene titled, "What is public health, and what does it mean to me?"

I then asked my children to define 'public health.' My kids and I previously engaged in many discussions related to public health—probably too many in their opinion.

Josiah sighed a bit in exasperation and said, "Oh, Mom, it's the health of the public." Conceding that in many ways his answer was spot on, I then asked my kids what they thought I should talk about with this group of women.

Josiah replied, "Mom, just tell them that Jesus loves them! That's all they REALLY need to know!" (My husband pastors a church in our rural community, if that helps provide a context for that response.). So, when I arrived to talk to a group of about 40 women—the youngest of whom was 80—I started with that Jesus loved them and then proceeded to talk about public health.

In a lot of ways, that presentation to that group of wonderful, inspiring ladies reminded me of why I chose to go into the public health profession in the first place and has since served as a motivation to continue in the pursuit of teaching, research, and service related to public health. Those women had a hunger and drive for life-long learning; they wanted to better understand public health and their role in making communities healthier for everyone and improving population health status and quality of living for all. have been a part of

TTUHSC—first as part of the TTUHSC MPH program, and now the Julia Jones Matthews School of Population and Public Health.

Throughout my eight years with the TTUHSC MPH program, I have been a part of several projects and initiatives that have yielded positive impacts and improved health outcomes for our rural West Texas communities.

I want to share a few of those stories to highlight the public health profession, populations served, the purpose of public health, key public health priorities in our West Texas communities, and why I am passionate about public health.

Public Health

C.E.A. Winslow defined public health as the "science and art of preventing disease, prolonging life and promoting physical and mental health and well-being" (1920).

The American Public Health Association states that "public health promotes and protects the health of people and the communities where they live, learn, work and play" (n.d.).

I describe public health as "anything that has to do with ensuring/providing basic human needs—air, water, food, shelter, safety." To carry out the mission and vision of public health, such as the Healthy People 2030 vision of building a healthier future for all, we must prepare a public health workforce that can help communities promote and protect their health.

When I started at TTUHSC in 2014, the Abilene Taylor County Public Health District (ATCPHD) had approximately 68 employees—two of which had MPH degrees.

Since the inception of our program, ATCPHD has encouraged its employees to pursue their MPH, and now several ATCPHD employees have MPH degrees—including their Director of Public Health and Assistant Director of Health Services.

Our MPH program has helped equip current and future public health professionals and, in turn, has benefitted from partnering with several public health and non-profit organizations in West Texas and beyond to serve as Applied Practice Experience (APE) sites for our students as well as our partners on

That experience has remained with me for the past seven and half years that I

research projects and grants.

Populations

Public health is all about improving the health of the public, and the public is comprised of populations.

Population health is integrated with public health, and both will be featured in the new school. Population health refers to "the health outcomes of a group of individuals, including the distribution of such outcomes within the group" (Kindig & Stoddart, 2003).

Since the beginning, the TTUHSC department of public health has focused on improving population health programs. One recent example is the Guatemalan population in the rural West Texas communities of Friona (Parmer County) and Hereford (Deaf Smith County).

We received a health equity grant from the Texas Department of State Health Services to focus efforts on how to improve the health of the Guatemalan population (Theresa Byrd, DrPH—Principal Investigator; Jeff Dennis, PhD—Coinvestigator; Julie St. John, DrPH—Co-investigator).

We are currently conducting a community health status as-

sessment with this population in an effort to identify needs and gaps in service. Findings from the assessment will subsequently inform potential interventions, projects, and programs to improve population health status for this population.

Purpose

The purpose of public health is to prevent problems that impact our health through education, policies, services, and research (CDC Foundation, n.d.).

The three core functions of public health are assessment, policy development, and assurance (The Institute of Medicine, 1988).

Assessment refers to collecting and analyzing health-related information and includes investigating health conditions, potential risk factors, and community resources related to prevention and health care; assessment focuses on the identification of trends in disease, injury, and death and their related factors (IOM, 1988).

Policy development involves the process of creating policies related to health problems, health-²² RHQ focused programs, and threats to health with the intent to improve population health status (IOM, 1988).

Assurance is ensuring that communities and individuals have easy access to high-quality health services and also includes the promotion and protection of public health through specific programs, events, campaigns, and other strategies focused on population health and wellness (IOM, 1988).

Our department has worked on many projects and grants that focus on assessment, assurance, and policy development to fulfill the purpose of public health. For example, I had the privilege of working with a student and colleagues to assess the impact of workplace breastfeeding policy on maternal and child health. The study involved assessment, assurance, policy, and recommendations for future work.

Priorities

West Texas communities are currently facing important public health issues.

A key reason for this broad array of public health needs—ranging from healthcare access, mental health, chronic illnesses, maternal/ child health, obesity, substance use/misuse, environmental conditions, occupational hazards, and many more—in our rural communities is due to social determinants of health (SDOH), which are factors impacting health such as age, income, race/ethnicity, geographic location, environment, education attainment, transportation, health literacy, barriers to care, cultural norms/values, etc. (Rural Health Information Hub, 2021).

Of particular concern is the opioid epidemic—which has impacted rural communities in particular.

To address this alarming trend, a team of researchers from the JJMSPPH, the TTUH-SC School of Medicine, the TTUHSC School of Nursing, and TTU worked together on a study related to Integrative Healthcare or Complementary and Alternative Medicine (CAM)—which can serve as an alternative to opioids.

The study asked 100 nurse practitioners (NPs) about their knowledge, attitudes, beliefs, and utilization of CAM practices.

The research team conducted two focus groups and a validated questionnaire using the framework of the Theory of Planned Behavior (TPB).

Data analysis and results con-

firmed the expected outcome-attitude, knowledge, beliefs, and utilization of CAM practice regarding pain management is lacking among NPs in Texas. The next step is to conduct a larger-scale study to validate the protocol and findings from the pilot study.

The end goal of this research is to develop an educational and training intervention for NPs to encourage the utilization of CAM in pain management, which we hope will result in fewer opioid overdoses and deaths.

Passion

Passion is really what started my journey in public health.

While pursuing other degrees, I traveled to southwest China. During that trip, my team and I conducted GPS mapping of remote villages.

This experience exposed me firsthand to basic public health issues such as clean drinking water, sanitation, and solid-waste disposal and subsequently encouraged me to pursue a degree and career in public health with a focus on community health development.

More than two decades later, I had the opportunity in the summer of 2022 to volunteer with a team to build composting latrines in a rural community in northwest Peru that did not have consistent running water or even a consistent sewage system.

Using principles of community engagement and the community health development process, we worked alongside local residents to build a latrine in a common area in the middle of the community. which was donated by the local mayor. This work was part of a pilot project that also included training several community members in the use and upkeep of the composting latrine. We hope to return and build additional latrines in the future.

My passion for population health improvement motivated me and all those involved to complete this much-needed project.

Prospects and Perspectives

In conclusion, my journey in public health—particularly the past eight years—has taught me that there is much work to be done to create environments and communities that "[Build] a healthier future for all."

I know I want to be a part of that work, that purpose, those priorities, and that passion. The prospects are great, and the work will take innovation and collaboration which I'm proud to say is the core of the JJMSPPH and TTUHSC.

So, I leave you with this: Jesus loves you, and public health is vital to creating healthier futures for all of us.

References

American Public Health Association (n.d.). What is Public Health? Accessed September 1, 2022 from https://www.apha.org/whatis-public-health

CDC Foundation. (n.d.). What is Public Health? Accessed September 1, 2022 from https://www.cdcfoundation.org/what-public-health

Healthy People 2030 (n.d.). Health People 2020. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Accessed September 1, 2022 from https://health.gov/ healthypeople

Institute of Medicine (US) Committee for the Study of the Future of Public Health. (1988). The Future of Public Health. National Academies Press (US).

Kindig, DA, Stoddart G. (2003). What is population health? *American Journal of Public Health*, *93*, 366-369.

Rural Health Information Hub. (last updated 8/18/2021). Healthcare Access in Rural Communities. Accessed September 1, 2022 from https://www.ruralhealthinfo.org/ topics/healthcare-access

Winslow, C. E. A. (1920). The untilled fields of public health. *Science. 51*(1306):23–33.

HEALTH **EDUCATION**

Addressing Complex Global Health Threats Locally: The Julia Jones Matthews School of Population and Public Health at Texas Tech University Health Sciences Center



Dr. COURTNEY QUEEN ASSISTANT PROFESSOR

Dr. Courtney Queen, Ph.D, is an Assistant Professor in the Department of Public Health at Texas Tech University Health Sciences Center-Abilene She is a Fulbright Scholar and represents the Abilene campus in the Faculty Senate at TTUHSC.

24 RHQ

Texas ranks first in the country for the exportation of cotton and second in the country for beef and veal. The United States Department of Agriculture (USDA) values Texas agricultural exports to global markets at \$6.3 billion (in 2019). Texas also leads the global export market for other valuable agricultural products such as corn, wheat, soy, feed grains, dairy products, and hay.

Texas is the top producer of oil and gas in the country. Responsible for more than 4.7 million barrels of oil each day and 22.5 trillion cubic feet of gas, it is not surprising that the bulk of goods exported from Texas, 78.5%, were petroleum-based manufactured goods (in 2018).

At the heart of this global economic success are the natural-resource-rich lands of rural Texas. Millions of acres of farming and ranching lands which supplies food, energy, and textiles for the world.

The vibrance of local economies is dependent on these natural resources, and skilled labor allows diversification by growing a strong service sector. This is of particular importance for tax revenue generation that supports infrastructure development, transportation networks, public health programs, and public education.

Global supply chains involving natural resources are particularly sensitive to disruptions, including those caused by disease outbreaks and extreme weather events. The impact of COVID-19 on the Texas economy is estimated to be in the millions. For Texas, COVID-19 was not just a health crisis—it was an economic crisis that impacted Texas and the global markets it participates in. The COVID-19 pandemic impacted glob, al supply chains, food availability and security, disrupted small businesses, and restricted revenue generation necessary for essential public services such as public health, education, small business support, and agricultural support.

In a report by the Texas Comptroller's Office, the pandemic represented "the steepest and fastest drop in Texas economic activity in modern history". Unemployment rates soared, revenue from sales tax collections declined rapidly, and other sources of revenue also suffered. The initial effects of the COVID-19 outbreak on state revenue were drops in:

- sales tax \$2.86 billion, down 5.0 % from December 2019 •
- oil production tax \$197 million, down 45.5%
- natural gas production tax \$86 million, down 25.0% •
- alcoholic beverage taxes \$84 million, down 28.5%
- hotel occupancy tax \$26 million, down 48.5% (Garza, et al, 2021). •

According to the United Nations Department of Economic and Social Affairs, the effects of COVID-19 on the global economy are expected to have reduced economic output by \$8.5 trillion in just two years and pushed more than 34 million people into extreme poverty (United Nations, n.d.).

World trade is expected to contract by at least 15% due to decreased demand and disrupted supply chains (United Nations, n.d.)—the effect of disease outbreak on global economies is devastating and often results not only in high rates of disease and death, but in loss of livelihood, high rates of unemployment, displacement, and housing loss.

Studies estimate the risk associated with intense disease outbreaks as increasing "three-fold" over the next few decades. In a report by Gavi, the Vaccine Alliance, the five reasons why pandemics like COVID-19 will become more likely are:

- 1. Global travel
- 2. Urbanization
- 3. Extreme weather events
- 4. Diseases of zoonotic origin¹, and
- 5. Weaknesses in our health systems (Joi, 2020).

While these five factors will contribute to the likelihood of additional pandemics, it is also these same factors that represent risk and vulnerability for rural communities.

Animal-to-human transmission and global travel represent the speed at which a disease can spread just in a matter of a few hours, but even as common as global travel is, local economies are sustained in part by global trade and complex global supply chains that are dependent upon the ability to extract resources and produce and move goods.

To supply other powerful industries of manufacturing and trade, Texas imports almost \$294.9 billion in goods from international partners (Texas Comptroller, International Trade, n.d.).

Keeping a resource-based economy healthy and thriving presents a new set of challenges. At this time in Texas and around the world, we are experiencing dramatic demographic shifts as people transition to urban settings.

Texas has become one of the nation's most urbanized states with more than 80% of Texans living in urban areas (United States, n.d.). This results in a 'brain drain' and the outmigration of young and healthy workers from rural areas to urban areas for the promise of economic and social opportunities.

While increased urbanization and meeting the needs of safe and healthy infrastructure development are major risk factors for rapid disease spread, this pattern in rural communities is devastating, leaving communities with stagnant wages and fewer opportunities.

This trend, and the availability of workers, or the lack of workers, not only affects agri-food supply chains and production, but labor supply shortages also

According to the International Trade Administration (ITA), Texas exported products worth more than \$328.9 billion in 2019, representing almost 20 % of the gross state product (GSP).

affect grain prices and changes in oil demand.

Commonly cited as one of the most important catalysts for the emergence of rapidly spreading diseases is the change in weather patterns and extreme weather events. These are events of particular importance in Texas and pose major threats to global supply chains affecting infrastructure, labor, and the food supply.

Just within the past few years in Texas, extreme weather events such as winter storms, hurricanes, flooding, droughts, and heat waves have all posed serious disruptions to supply chains and local economies. These disruptions affected health, led to the loss of life, and caused costly damages to infrastructure, transportation networks, and energy transmission.

Currently, Texas is experiencing extreme temperatures and drought. With multiple days over 100 degrees and below average rainfall, this is commonly considered the worst drought since 2011.

Heatwaves and drought conditions lead to dehydration, threats to drinking water supply, increased likelihood of wildfires, and major disruptions to agricultural practices, which ultimately threaten food security and nutrition for humans and animals in Texas and beyond.

Estimates show extreme heat and drought are costing Texas agricultural industries at least \$2 billion annually (Lozano, 2022).

¹ A zoonotic disease is an infectious disease that is transmitted between species from animals to humans or from humans to animals.

The heat and drought are decimating Texas' cotton crop, with yield expected to be cut in half. The beef cattle industry is also taking a hit. The USDA indicates the Texas share of the U.S. inventory of beef cattle is 14% of 4.5 million beef cows (Morgan, 2022).

Dry pasture and grazing lands mean constraints on feeding grains and hay essential for animal nutrition.

Pasture lands are not growing new food and livestock have to walk further in dangerous temperatures for water. The lack of water and natural sources of protein force ranchers to supplement livestock's diet with purchased hay and feeds.

These conditions are changing the plans for selling cattle, from selling earlier than planned and selling more of the herd than planned. This will ultimately affect grain pricing, beef pricing, and labor and processing costs.

Further, premature reduction affects future costs for growing the herd when optimal conditions return.

Droughts are not the only extreme weather threat to Texas and its economy.

Weather events such as the February 2021 winter storm perfectly illustrate the compounding effects of disease outbreaks, extreme weather, and exposed

weakness in the healthcare system. Severe and prolonged winter conditions taxed the state's electric grid, leaving millions without access to electricity.

This was compounded by the COVID-19 pandemic—icy roads delayed the delivery of medical supplies, medication shipments, oxygen, and food; frozen pipes prevented hospitals from performing basic functions in the delivery of health care; and hospitals were forced to continue care for COVID-19 patients while also responding to disaster-related mortality and injury, addressing operational emergencies, and retaining patients who could not be released to homes without electricity or food.

Rural areas are particularly sensitive and vulnerable to the effects of disease outbreak, as a result of the close relationship between communities and the environmental and global supply chains. Moreover, these effects accumulate over time, eventually resulting in fragile economies and resourceconstrained communities underprepared to respond to threats.

Fossil fuels for energy, fertile soil for food and clothes, and land for grazing have transformed human societies.

The presence of natural resources contributes to the growth of healthy communities, the opportunity for economic development, and the development of valuable political relationships and culture.

Healthy development can only be sustained by recognizing the inherent connections between the environment and human and animal societies and building

communities to be more prepared and resilient to change.

The Julia Jones Matthews School of **Population and Public Health**

To address these increasing complexities of global development and remaining steadfast in the commitment to healthy rural development, TTUHSC partnered with the local community to establish the Julia Jones Matthews School of Population and Public Health (JJMSPPH).

Modeled similarly to other Schools in the TTUHSC family, the JJMSPPH's location in Abilene is critical to meeting the mission and the rural development goals of the Texas Tech University System and the Health Sciences Center to advance the provision of quality education and development of academic, research, patient care, and community service programs to meet the health care needs of West Texas.

The regional concept of rural development allows for Schools to establish health education programs that address local needs such as biomedical research, medical and nursing programs, community pharmacy initiatives, other health professions, and academic health collaborations across half the State of Texas, or the 131,000 square mile service area of TTUHSC.

Authorized by the Texas Tech University System Board of Regents in August of 2021, the JJMSPPH was inaugurated on June 29, 2022.

One of six regional campus locations of TTUHSC, Abilene is a thriving community that values education with three private universities, a community college, a technical college, and TTUHSC as a public health sciences center dedicated to broadening the scope of healthcare for west central Texas.

Just named one of the top eight cities in the United States with less than 200,000 people, the City of Abilene has a thriving community based on collaboration and investment in educational and economic initiatives which attracts and retains skilled labor for key industries including manufacturing, education, health care, and research.

The JJMSPPH is the home of the Council on Education for Public Health (CEPH)accredited Masters in Public Health (MPH) degree program. Comprehensive public health educational programming focuses on protecting the health of people in communities.

Through scientific research and educational interventions, public health assures the health of the public by seeking to prevent disease.

Through the scientific investigation of patterns and causes of disease and injury, epidemiologists study cause(s), locations, and how communities are affected by a disease, while health promotion professionals develop educational interventions to build stronger communities that make healthier choices.

Through this vision, collaboration, and partnership, the community of Abilene and TTUHSC see the value in public health education, training, and research.

Building communities resilient to disease threats requires prepared communities with healthy and diversified

economies, quality infrastructure, and transportation networks to move goods and supplies. Of equal import are local investments that attract and retain talent for the benefit of the community.

The JJMSPPH understands that local investment is the key to a resilient community.

Prioritizing healthy economic development and securing a community's growth opportunities demonstrates that communities like Abilene are part of their own solutions.

References

Develop Abilene. n.d. Why Abilene, Texas. Available from: https://developabilene.com/ why-abilene-texas/

Garza, O., Costello, TJ., Donald, J., Fikac, P., Green, D., Grubbs, S., Halbrook, S., and Minton, L. 2021, January. Weathering the Pandemic: Texas Industries and COVID-19Texas Industries Most Affected by COVID-19. Available from: https://comptroller. texas.gov/economy/fiscalnotes/2021/jan/pandemic.php

Joi, Priya. 2020, June 10. 5 reasons why pandemics like COVID are becoming more likely. Gavi: The Vaccine Alliance. Available from: https:// www.gavi.org/vaccineswork/5reasons-why-pandemics-likecovid-19-are-becoming-morelikely

Lozano, Jayme. 2022, August 31. Texas' cotton industry is facing its worst harvest in years

— costing the state more than \$2 billion. The Texas Tribune. Available from: https://www.texastribune. org/2022/08/31/texas-droughtcotton-farming-economy/

Morgan, Tyne. 2022, August 2. A million beef cows gone? Texas' devastating drought could leave generational scars. Bovine Veterinarian. Available from: https://www. bovinevetonline.com/news/industry/million-beef-cows-gone-texasdevastating-drought-could-leavegenerational-scars

United States, Executive Office of the President. n.d. Office of the United States Trade Representative. Texas Trade Facts. Available From: https://ustr.gov/map/state-benefits/tx

State of Texas. n.d. Economy: Supply Chains. Food Supply Chain Overview.

Available from: https://comptroller. texas.gov/economy/economic-data/supply-chain/2021/food.php

State of Texas. n.d. Economy: Texas' International Trade. Available from: https://comptroller.texas.gov/ economy/fiscal-notes/2020/july/ trade.php

United Nations. n.d. COVID-19 to slash global economic output by \$8.5 trillion over the next two years. United Nations. Department of Economic and Social Affairs. Available from: https://www.un.org/en/ desa/covid-19-slash-global-economic-output-85-trillion-over-next-twoyears

RURAL **REPORTS**

RURAL HEALTH REPORTING FROM ACROSS THE NATION AND AROUND THE WORLD

What's news in your neck of the woods? Let us know!

Email: Email your rural health news to RHQ at RHO@ttuhsc.edu

U.S. Mail: Rural Health Ouarterly. F. Marie Hall Institute for Rural & Community Health, 5307 West Loop 289, St. 301 Lubbock, Texas 79414

ALABAMA //

The University of Alabama at Birmingham has renamed the UAB Minority Health & Health Disparities Research Center. The new UAB Minority Health & Health Equity Research Center will focus on achieving health equity and improving health in under-resourced areas.

alabamanewscenter.com | 09.14.22

ARIZONA //

Copper Queen Community Hospital in Bisbee is in the midst of planning a much-needed expansion. The \$10 million project will bring more surgeons and specialty services not only to Bisbee, but the hospital's rural clinics in Douglas, Palominas, and Tombstone.

azcentral.com | 08.30.22

ARKANSAS //

In Arkansas, the University of Arkansas for Medical Sciences has partnered with Doctor's Orders Pharmacy and the Arkansas Rural Health Partnership to bring community health workers to Jefferson County, an under-resourced area. Two CHWs are available in the county currently.

CALIFORNIA //

news.uams.edu | 09.09.22

In rural California, senior citizens are struggling to age in place. A new partnership from Legacy Health Endowment will allow seniors and their caregivers to access community-based healthcare and hospice services. The pilot program will take place in Stanislaus and Merced counties.

hospicenews.com | 09.14.22



CANADA

cbc.ca | 09.07.22

In a new Angus Reid Institute poll, Canadians are less satisfied with their access to healthcare than Americans. Only 15% of Canadian residents are satisfied, lower than the 29% of Americans. Healthcare shortages and closures in rural provinces have led to longer wait times for test results and canceled appointments, with the provinces as a whole reporting increased hurdles to access care.

AUSTRIA

In Austria, roughly 240,000 children and adolescents are considered overweight or obese. Dr. Daniel Weghuber is aiming to change that.

Head of pediatrics of Paracelsus University in Salzburg, Dr. Weghuber is striving to classify obesity as an actual, chronic disease. The country itself has just launched an initiative called the Austrian Obesity Alliance.

Changing the perception of obesity from social stigma to an actual lifethreatening disease is one goal of the Alliance.

who.int | 09.08.22



COLORADO //

The University of Colorado Denver has received \$7 million in federal grants as part of the federal government's five-year Teacher Quality Partnership program. CU Denver will use the funds to expand the program into rural areas, allowing new growth and helping communities retain and develop their teachers.

The money comes on the heels of Colorado's past success in addressing the teacher shortage, where stipends and high school programs have placed teachers in rural areas where recruitment and retention are difficult.

co.chalkbeat.org | 09.12.22

ROMANIA

Compared to other countries in the European Union, citizens in Romania pay more for out-of-pocket healthcare costs. Gaps in coverage led to one in eight households spending 40% more for healthcare. Outpatient medicine, dental care, and outpatient care are the most expensive.

Recently, Romania's National Health Insurance House has introduced reforms designed to lower costs, but the 12% uninsured rate and a shortage of healthcare access in rural areas undermines the progress made.

who.int | 08.29.22

CONNECTICUT //

Save Day Kimball Hospital, a rural coalition in northeast CT. has called on state leaders to stop Covenant Health, a healthcare system based in Massachusetts, from purchasing the rural-serving Day Kimball Hospital.

The coalition worries that the Catholic faith health system would place restrictions on reproductive health and contraception services offered by Day Kimball, as well as gender-affirming and end-of-life healthcare.

They also claim that the town of Putnam, where Day Kimball is located, has not been allowed any input. The CEO of Day Kimball said in a statement that the hospital's acquisition would secure finances and needed expansion.

norwichbulletin.com | 08.19.22

AUSTRALIA

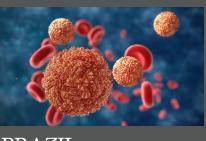
uwa.edu.cau | 09.06.22

In Western Australia, a new partnership has made the region a global hotspot for ocular disease research. Lions Eye Institute (LEI), Curtin University, and the University of Western Australia (UWA) are working to bring new techologies and clinical practice to urban and rural areas of the country. The new Doctor of Optometry program at UWA, the new LEI UWA Chair in Optometry Research, and the inagural Lions Curtin chair in Ophthalmic Big Data are just a few of the boons the partnership has provided.

FLORIDA //

immunizations.

usnews.com | 08.21.22



BRAZIL

In Brazil, the Zika virus is still as prevalent as it was back in 2015. Forgotten after the COVID-19 pandemic, parents and WHO researchers are struggling to care for the children affected. The virus itself is still around, but with little funding available, therapy options are limited.

nytimes.com | 08.16.22

Voicemail:

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Find more RHO contacts at ruralhealthquarterly.com or follow us on Facebook at facebook.com/ RuralHealthQuarterly.



In Florida. Ascension St. Vincent's Riverside Hospital has been running mobile health outreach for over 30 years. Originally serving two counties with free medical care for migrant workers, today the outreach covers five under-resourced counties in northeast Florida. The mobile units offer primary care for children and adults, as well as dental care and

GEORGIA //

The new 988 mental health crisis hotline is online in Georgia, with state officials saying counselors are reaching more people. The first 45 days showed 476 calls, with rural areas calling in more so than their urban counterparts.

ajc.com | 09.15.22

HAWAI'I //

The University of Hawai'i's John A. Burns School of Medicine received the first cohort of students of the Kaua'i Medical Training Track Program this August. Funded by Priscilla Chan and Mark Zuckerberg, the program is meant to address doctor shortages and improve healthcare access on Kaua'i. The students selected must have ties to Kaua'i or an interest in rural health.

hawaii.edu | 08.23.22



ITALY

In a report published by the World Health Organization, Italy has the worst case of physician workforce aging. More than 56% of doctors in the country are over the age of 55, a sign of the trend of Europe's healthcare workforce getting older with no one to replace them.

politico.eu | 09.14.22

Rural Reports //

IDAHO //

Bingham Healthcare in Blackfoot has a new chief nursing officer. Holly Davis, RN, BSN, MBA will oversee clinical nursing in the entire health system. Davis was trained in rural nursing and has experience in rural health and population health.

localnews8.com | 09.14.22

ILLINOIS //

Dr. William Ribbing has been awarded the Rural Physician Lifetime Service Award by the Illinois Rural Health Association. Dr. Ribbing has brought healthcare access to his rural patients by serving as CMO of Rural Health in Anna. Rural Health serves 65,000 patients per year.

wsiltv.com | 09.14.22

IOWA //

The state is planning to shut down the Glenwood Resource Center by 2024, a move that leaves locals scrambling to rehouse their family members who reside there. Glenwood faces federal pressure to improve conditions or close.

khn.org | 09.14.22

KANSAS //

In Erie, residents faced a distinct challenge: how to keep their only grocery store up and running.

With rural towns across the country losing theirs, the town of Erie bought Stub's Market, keeping it operational through the COVID-19 pandemic and beyond.

thehustle.co | 09.10.22



KENTUCKY //

The University of Kentucky's **Project CARAT** has been working on resupplying canes, crutches, wheelchairs, and other medical equipment that was washed away in floods earlier this summer.

Project CARAT repairs and refurbishes this medically necessary equipment, and the student-run project produces tens of thousands of dollars of equipment annually.

uknow.uky.edu | 08.25.22

LOUISIANA //

Northwestern State **University** has received a \$1.8 million grant to expand two programs to address nursing shortages in northwest and central LA. Granted by the Blue Cross and Blue Shield of Louisiana Foundation, the programs allow paramedics, military medics, and degree holders in science to transition into nursing jobs. ktbs.com | 09.15.22

MAINE //

Maine is one of five states with the highest incidence of Lyme disease. Between 2007 and 2021, diagnoses of Lyme disease have exploded, with cases increasing in rural areas by 60%. New Jersey, Vermont, Rhode Island, and Connecticut are with Maine in having the highest number of Lyme disease diagnoses last year.

thehill.com | 08.02.22

MASSACHUSETTS //

UMass Chan Medical School and Lahey Hospital are teaming up to break ground on a new medical campus. The regional medical campus of MA's only public medical school will be located in Burlington, and will be the second regional campus for the UMass medical school.

masslive.com | 08.18.22

MICHIGAN //

Michigan State University and the Michigan Center for Rural Health have partnered to support rural veterans in the state.

The Improving Rural Enrollment, Access and Healthcare in Rural Veterans, or I-REACH, seeks to improve access to healthcare for vets with and without disabilities, as well as stress management and benefit assistance.

msutoday.msu.edu | 08.19.22



NEBRASKA //

In Franklin this past winter, a rural woman gave birth in her car while trying to reach the closest hospital. As rural access to maternal care in the state decreases or becomes harder to get to, births in cars and ambulances may become a more common occurence. From 2016 to 2018, rural NE accounted for 40% of births in the state.

flatwaterfreepress.org | 08.05.22



NORTH DAKOTA //

In Fargo, Sanford Health has opened

a new dialysis clinic, providing care

The I-94 Dialysis Clinic is the first

and so far only pediatric dialysis

Minnesota and the entire state of

service provider for northern

sanfordhealth.org | 09.12.22

OKLAHOMA //

Oasis Fresh Market, based in North

Tulsa, is preparing to expand into rural Oklahoma with an upcoming \$30

million grant from the state's American

Rescue Plan Act funds. The money

will be used to open locations in two

in west Tulsa and Oklahoma City. The

original Fresh Market was opened in

what was considered a food desert

location in Tulsa, where fresh food

The state's oldest rural health

clinic, Orchid Health McKenzie

River Clinic, is still going strong

Fire. After the fire burned down

the town of Blue River and the

clinic itself. Orchid Health moved

such as pediatrics and urgent care.

to Rainbow and rebuilt. The new

clinic offers expanded services

after the devastating Holiday Farm

other areas of the city.

tulsaworld.com | 09.15.22

OREGON //

klcc.org | 09.14.22

and produce are harder to find than in

rural communities as well as locations

to young patients who need

hemodialysis.

North Dakota.

The Pennsylvania Rural Health Model, a \$25 million, six-year project studying the effects of a new funding model for rural healthcare facilities, was recently summarized in a journal article. Results showed that "global budget" funding, rather than fee-for-service, was more costeffective and efficient for rural hospitals. psu.edu | 07.21.22

SOUTH DAKOTA //

In Sioux Falls, Sanford USD Medical **Center** has received the American Nurses Credentialing Center's Magnet Recognition for the fifth straight time, the highest national honor for professional nursing practices.

Sanford USD is one of less than 40 facilities to receive Magnet five times. sanfordhealth.org | 09.16.22



TEXAS //

health awareness.

uthct.edu | 09.16.22

The Southwest Center for Agricultural Health, Injury, and Prevention, has partnered with the Texas A&M Agrilife Extension Service and the Texas Department of Agriculture to address the mental health needs of farmers and ranchers across the state. The partnership will offer new ways for farmers and ranchers to mitigate

PENNSYLVANIA //

seasonal stress as well as behavioral

VERMONT //

In rural Vermont, Meals on Wheels and other senior programs are struggling to stay active, as volunteers, mostly older people themselves, are still concerned about COVID-19. Senior program volunteers are considered to be very important, as many times the volunteer is the only person the seniors will see all week.

sevendaysvt.com | 08.31.22

WASHINGTON //

In rural Washington, caregivers for rural people are few and far between, with travel distances and financial incentives a growing issue. The battle between seniors aging in place versus their medical needs is tough; with neighbors, local healthcare providers, and the few caregivers still available fighting to close the gaps.

union-bulletin.com | 08.22.22

WISCONSIN //

In rural Wisconsin and urban Milwaukee, food deserts have grown to encompass larger areas than before, pushing cities and community groups to fill the gaps. Currently, 10% of the state live in food desert areas, where grocery stores closures and lack of access can lead to poor health choices.

pbswisconsin.org | 09.06.22

WYOMING //

Cody Regional Health, a rural health agency in Wyoming, has added virtual reality to their list of therapies for senior citizen patients.

Through a partnership with MyndVR, the therapy helps patients mitigate isolation and allows them to connect to the outside world.

wyomingnews.com | 09.16.22

RHQ CONFERENCE CALENDAR

heck out our list of rural health conferences, and let us know if you're hosting one so we can help spread the word. Email us at RHQ@ttuhsc.edu.

2022 Annual Prevention of Youth Substance Abuse **Conference *Virtual*** Oct. 5, Lancaster, SC

2022 Annual Conference on Advancing School Mental Health *Virtual* Oct. 13 - 14, Baltimore, MD

25th Annual South Carolina **Rural Health Conference** Oct. 18 - 20, Greenville, SC Greenville Hyatt Regency

2022 Annual Colorado Rural Health Conference Oct. 19 - 21, Colorado Springs, CO The Antlers, A Wyndham Hotel

30th Annual West Virginia Rural Health Conference

Oct. 19 - 21, Lewisburg, WV WV School of Osteopathic Medicine

2022 Annual Maryland Rural Health Conference Oct. 24 - 25, Flintstone, MD Rocky Gap Resort

2022 Annual New England Rural Health Conference Nov. 1 - 2, Killington, VT Killington Resort

47th Annual National **Association for Rural Mental** Health Conference Nov. 2 - 4, Boulder, CO Embassy Suites

2022 National Conference on EMS Nov. 3 -5, Atlantic City, NJ Harrah's Waterfront Conference Center

2022 Annual Illinois Critical Access Hospital Network Conference Nov. 10, Champaign, IL, I-Hotel and Conference Center

24th Annual Kentucky Rural Health Association Conference Nov. 16 - 17, Somerset, KY Center for Rural Development



2022 Annual Midwest Rural Agricultural Safety & Health Conference Nov. 16 - 17, Cedar Rapids, IA Hotel at Kirkwood Center

2022 Annual Kansas Rural Health Association Conference Nov. 16 - 17, Kansas City, KS

2022 Rural Health Voice Conference Nov. 16 - 17, Williamsburg, VA Great Wolf Lodge

2022 Annual Tennessee Rural Health Association Conference Nov. 16 - 18, Pigeon Forge, TN Music Road Resort

2022 Annual Rural Health Assoc. of Utah Conference Dec. 1, St. George, UT, Utah Tech University Gardner Ballroom

2023

34th Rural Health Policy Institute Feb. 7 - 9, 2023, Washington, D.C. Hilton Washington D.C. National Mall

2023 NACo Legislative **Conference** Feb. 11-14, 2023, Washington, D.C., Washington Hilton

2023 Journal of Emergency Services (JEMS) Conference and Expo

April 24 - 29, 2023, Indianapolis, IN Indiana Convention Center & Lucas Oil Stadium

Rural Medical Education Conference

May 16, 2023, San Diego, CA Sheraton San Diego Hotel & Marina

8th Rural Hospital Innovation Summit May 16 - 19, 2023, San Diego, CA Sheraton San Diego Hotel &

Marina

2023 Annual NACo Conference July 21-24, 2023, Austin, TX Austin Convention Center

21st Rural Health Clinic Conference Sept. 26 - 27, 2023, Kansas City, MO Sheraton Kansas City Hotel at Crown Center

22nd Critical Access Hospital Conference Sept. 27 - 29, 2023, Kansas City, MO Sheraton Kansas City Hotel at Crown Center

POPULATION and **PUBLIC** HEALTH

What is **Public** Health?

"Public health focuses on improving and protecting community health and well-being."

What is **Population** Health?

"Population health is defined as the health outcomes of a group of individuals, including the distribution of such outcomes within the group."

Why are **Population** Health and **Public** Health important to healthcare?

"The population health approach helps by focusing on wellness instead of sick care, using data more effectively to improve care, engaging patients in their care, and coordinating care that was previously siloed and fragmented."

"Public health targets the biggest problems of healthcare to improve the health and well being of society."

What can **Population** Health and **Public** Health do for people?

"Public health creates awareness in society about the benefits of staying healthy."

"Population health provides 'an opportunity for health care systems, agencies and organizations to work together in order to improve the health outcomes of the communities they serve.""

Sources: https://www.waldenu.edu/programs/health/resource/what-is-public-health-and-why-is-it-important https://www.cdcfoundation.org/what-public-health https://theconversation.com/why-isnt-learning-about-public-health-a-larger-part-of-becoming-a-doctor-45413 https://www.nwph.net/nwpho/publications/SuicideintheNW.pdf https://www.improvingpopulationhealth.org/blog/what-is-population-health.html https://www.ama-assn.org/delivering-care/population-care/what-meant-population-health-and-why-it-matters https://www.cdc.gov/pophealthtraining/whatis.html

Did we miss one? Let us know at RHO@ttuhsc.edu

"Public health also operates to provide equal health opportunities to everyone."



TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER.

F. Marie Hall Institute *for* Rural *and* Community Health

HQ Plaza, 5307 West Loop 289, Suite 301

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TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER.

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