



A Vision to Improve Health Outcomes in Central and Southern Illinois

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This department provides a significantly new approach to health care that bridges data, health care delivery, and social determinants of health. It also reflects SIU Medicine's deep commitment to improving health care in our rural communities.

– **JERRY KRUSE, MD, MSPH**, DEAN & PROVOST, SIU MEDICINE

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Department of Population Science and Policy

201 East Madison Street, Suite #230
Springfield, Illinois 62702
siumed.edu/popscipolicy
217.545.7939
PSP@siumed.edu



PopSci2Policy



@PopSci2Policy



SIU Medicine Population Science & Policy



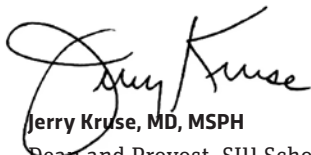
Addressing the health of populations in central and southern Illinois.

With a mission area covering 66 counties, nearly 32,000 square miles, and 2.2 million people, Southern Illinois University (SIU) Medicine, both the school of medicine and clinical practice, works tirelessly to serve communities in need. SIU Medicine was established to optimize the health of the people of central and southern Illinois through education, patient care, research, and service to the community. For more than 50 years, SIU has worked to educate physicians and provide clinical care to our 66 counties—but as medicine and technology evolve, so has our social mission.

We understand that a person's social determinants of health—or the social, economic, and environmental factors of our day-to-day lives—play a huge part in our overall wellness. With that in mind, we created the Department of Population Science and Policy to be an academic leader in understanding the challenges of people in central and southern Illinois and work with those communities to provide innovative, sustainable solutions to improve health. We believe all people should be able to reach their full health potential.

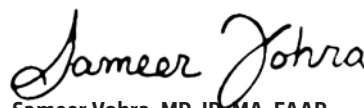
The Department's work is especially important as our service region faces great need. Much of central and southern Illinois is comprised of rural communities. These communities are powered by innovative, resilient residents. However, many rural communities also face unique challenges and fewer resources than their metropolitan counterparts. While the COVID-19 pandemic highlighted challenges in all communities, it has disproportionately impacted communities with existing health disparities. It has shown that the work of SIU Medicine and the Department of Population Science and Policy is more important than ever.

On the following pages, we identify a vision for our work, the key capabilities that allow us to make real change, and the impact areas on which we will focus our efforts. We have outlined an ambitious plan to improve health outcomes in the counties we serve. **The success of this plan depends on connection, communication, community collaboration, and capitalization of existing resources.** We invite you to connect with us to learn more about our goals, capabilities and how we can work together.



Jerry Kryse, MD, MSPH

Dean and Provost, SIU School of Medicine
CEO, SIU Medicine



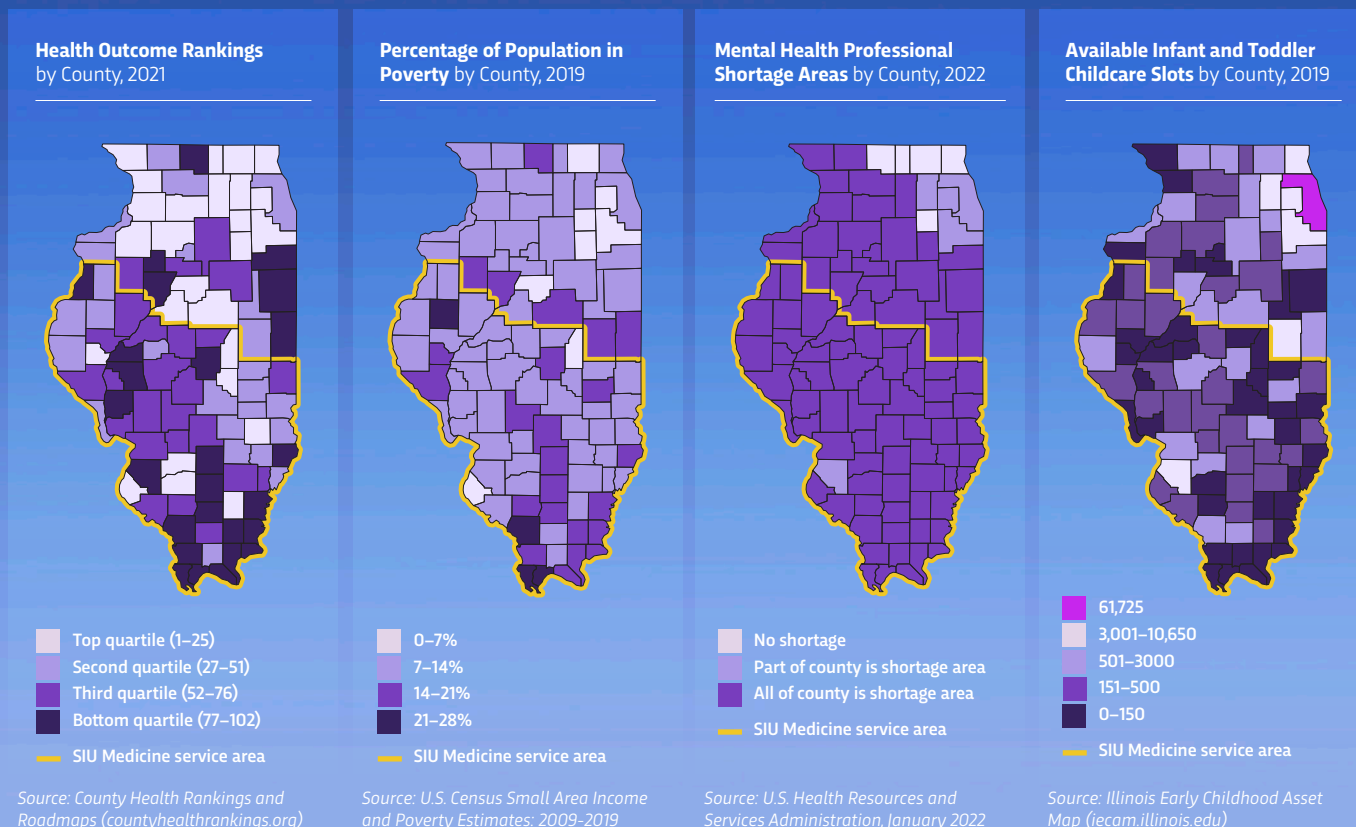
Sameer Vohra, MD, JD, MA, FAAP

Founding Chair, Department of Population
Science & Policy



Our approach impacts the communities that need it most.

The Department of Population Science and Policy works within SIU Medicine's 66-county service area, a region that is unique, underserved, and incredibly resilient. Rural Illinois, in particular, is filled with innovative communities seeking partnerships to improve the social, economic, and environmental factors that determine health outcomes.





We are driven to **UNDERSTAND THE CHALLENGES** people face in rural and underserved communities of central and southern Illinois and **PROVIDE INNOVATIVE, SUSTAINABLE SOLUTIONS** to improve health outcomes.

Background & Mission

At the forefront of a vital and growing field

The Department of Population Science and Policy was established to take a new approach to health care that combines **data analysis**, **community engagement**, and **policy formation** to address the social and structural factors that most influence health. Since our formation as the Office of the Population Science and Policy in 2016 and promotion to a full academic medical department in 2018, we have focused our work on the most pressing needs in rural and underserved Illinois.

Thanks to the foresight of SIU Medicine leaders, the Department is one of the nation's first population health-focused academic medical departments and remains one of only a handful of such departments focused primarily on underserved rural communities. We work with both clinical and basic science departments to advance SIU School of Medicine's mission to optimize the health of the people of central and southern Illinois through education, patient care, research, and service to the community.

Mutually Reinforcing Perspectives

The Department consists of three divisions: **Epidemiology and Biostatistics**, which serves as a traditional academic research arm working to gather and analyze data and publish results; **Human and Community Development**, which collaborates with communities to identify, design, and implement effective solutions to improve health through mixed methods research; and **Health System Science**, which uses evidenced-based research to inform and improve local, state, and national policies that affect the health of rural and underserved populations. The **Education** team works with all three divisions to develop and teach a population health curriculum to medical students and resident trainees.

Our Growth Thus Far

Since 2016, we have grown from eight to 27 faculty and staff members. We've hosted multiple statewide events and conferences, including the Rural Health Summit; published more than 50 articles in scholarly journals; and have been invited to give hundreds of local, statewide and national presentations. Our key capabilities have positioned us to lead the conversation about optimizing health in Illinois for years to come.



Awards & Recognition

- › The Department received the American Public Health Association Public Health Education and Health Promotion (PHEHP) Health Equity Award for its work to eliminate health disparities and improve health equity (2019).
- › Dr. Sameer Vohra was named a Presidential Leadership Scholar by the George W. Bush Presidential Center, the Clinton Presidential Center, the George and Barbara Bush Foundation, and the LBJ Foundation (2020).
- › The Department was recognized with the Award of Merit by the Illinois Rural Health Association (2018).

Pictured: SIU Medicine Population Science and Policy team accepting the Illinois Rural Health Association Award of Merit.

Key Department Capabilities



Expertise

Our work is powered by talented and dedicated faculty and staff. We have spent years studying, visiting, and collaborating with rural and underserved communities, understanding their particular challenges and equity issues, and have become innovators and thought leaders in improving health and engaging communities in central and southern Illinois. Our projects and plans are informed by thousands of hours of conversation, research, and project design. Our expertise, particularly in rural matters, has been recognized and sought out by local, state, and national entities.



Engagement

We have formed strong partnerships with stakeholders and organizations in the communities we serve to create collaborations, maximize resources, and eliminate existing barriers. We have cultivated relationships, built trust, and developed positive reputations in the communities we serve.



Innovation

We offer new ideas and strategies on how communities consider health. Our faculty and staff work with communities to help create frameworks, develop capacity, and organize the resources to spark, nurture, and replicate homegrown innovation. We know sustainable change is developed in and by communities and we provide the data, organization, and expertise to make improvements.



Policy Influence

We give a nonpartisan, evidence-based perspective. Our work is shaped by community needs and resources to develop policies to improve health outcomes and close health disparities. We know informed policies lead to sustainable change.



Multidisciplinary Perspective

Our team of individuals trained in medicine, law, public health, social science, social work, policy, and business provides a 360-degree view to create effective and sustainable solutions. In addition to diverse areas of expertise, our faculty and staff represent varied background, cultures, and personal perspectives. Many members of our team were raised and live in the communities we serve.



Rural and underserved communities in Illinois face disparities in **EDUCATION, ECONOMIC OPPORTUNITY**, and **ACCESS TO BASIC RESOURCES**. These disparities ultimately impact the collective health of the community.

Area of Impact

Health Equity

The Department of Population Science and Policy is committed to improving health in the places that need it most. Rural regions' culture, institutional structures, and low population density create unique challenges for each community. Likewise, each rural community boasts a unique set of strengths.

Rural communities across the U.S. often lack the data necessary to track and address health disparities and make informed decisions. Many rural communities also suffer from a shortage of health professionals and face transportation and logistical challenges due to sparsely populated geographic regions. Furthermore, national news coverage of rural issues often lack nuance and unique voices.

Significantly fewer academic medical departments focus on rural communities as compared to metropolitan and urban communities. We are working to fill that space by fostering community innovation and offering the knowledge, data, and project design to improve health in rural and underserved regions. We focus on addressing the Social and Structural

Determinants of Health (SDOH) in rural and similarly underserved communities (see sidebar below). These are the factors that determine whether someone is starting from an equal (or unequal) playing field. Virtually all of our projects work to improve equity in some way.

Health Equity Initiatives

Epidemiology and Biostatistics. Our Epidemiology and Biostatistics Division is a major contributor to the body of work focused on rural and urban health disparities and why rural residents suffer from cancer and other diseases at an increased rate. The division has also led many projects focused on underserved rural populations for which little data currently exists, such as sexual and gender minorities and people who inject drugs.

Human and Community Development. Our Human and Community Development Division also considers equity to be at the core of its work. Human and Community Development faculty and staff have been working with

Social and Structural Determinants of Health



Healthcare Access and Quality



Education Access and Quality



Neighborhood and Built Environment



Economic Stability



Social and Community Context



Social Determinants of Health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. SDOH have a major impact on people's health, wellbeing,

and quality of life. SDOH also contribute to wide health disparities and inequities. For example, people without access to grocery stores with healthy foods are less likely to have good nutrition. That raises the risk of health conditions like heart disease, diabetes, and

obesity—and even lowers life expectancy relative to people who do have access to healthy foods.

From Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion.



Illinois Rural Health Summit

In August 2018, the Department of Population Science and Policy joined SIU Medicine Center for Rural Health and Social Service Development, University of Illinois Chicago School of Public Health, and SIU Paul Simon Public Policy Institute to create the Illinois Rural Health Summit. This event brought together leaders in government, health care, public health, business, philanthropy, and community service to develop recommendations to improve the health of rural Illinois.

In response to the unique challenges of COVID-19, the partners hosted 11 forums during the fall and early winter of 2021 to better understand and address its impact. Eighty leaders from 55 organizations shared challenges caused by the pandemic. They also spoke of the

incredible ingenuity, capability, and innovation of rural residents to address them. Forums emphasized a “health in all policies” approach, focusing on the social, economic, and biological challenges and opportunities. Topics included rural economic development, health workforce, children’s growth and development, nutrition and fitness, mental health, opioids, public health systems, caring for an aging population, and healthy housing.

Throughout 2021 and in 2022, the Department and Rural Health Summit partners provided in-depth recommendations on these topics, releasing monthly reports with blueprints for action and policy change and hosting corresponding webinars and roundtable discussions.

The work of the Rural Health Summit will pivot in 2022 as the Department of Population Science and Policy will host a unique celebration of Illinois-based rural innovations and implementation workshops to expand innovation in rural communities.

2021 HIGHLIGHTS

1,200

Registered participants
for 9 hosted webinars

20

Rural experts contributing
to roundtable discussions

10

COVID-era reports released
based on discussions

Illinois counties to survey and develop shared priorities for the IRS-required Community Health Needs Assessments. The goal of this collaboration is to allow for better use of limited resources and avoid duplication of services. By playing the role of data, design, and implementation science partner, the Human and Community Development faculty and staff help communities achieve a more equitable and collaborative distribution of resources and a more thoughtful, informed plan of action for the future.

Health System Science. The Health System Science Division has led major statewide initiatives to create more equitable and informed policies that impact rural residents. The Illinois Rural Health Summit activities kicked off in 2018 and are scheduled to continue into 2022. The 2018 Summit convened a diverse group of rural health stakeholders to identify the nine most pressing challenges facing rural Illinois. A report, *The State of Health in Rural Illinois: Great Challenges and a Path Forward*, came from those discussions and subsequent research. The Summit reconvened in 2020 to identify key how the pandemic impacted health equity. Together with its partners, the division is releasing

policy briefs and hosting corresponding roundtable webinars for the issues identified during those sessions.

Education. Our Education team collaborates with SIU Medicine’s Offices of Education and Curriculum and Graduate Medical Education to provide curriculum focused on health disparities and social determinants of health to residents and teaching faculty at SIU, working to improve systems of care and health equity in the 66 counties of central and southern Illinois and beyond.

Looking Forward

We have identified the creation of Child-Friendly Cities as a future priority. Building on efforts started in Alton, Illinois, we are working with our partners to ensure that each child has the right to grow up in an environment where they feel safe and secure, has access to basic services and can play, learn, and grow would exponentially improve childhood development and future health outcomes.



Few things can have **A MORE POSITIVE IMPACT** on an individual's life than access to quality mental and behavioral health strategies and resources.

95% of Illinois counties are designated mental health shortage areas and there are no child or adolescent psychiatrists in 81 of 102 counties in Illinois.

Area of Impact

Mental & Behavioral Health

Poor mental health can contribute to a broad range of other health conditions. However, most rural communities have far too few mental health providers. Without accessible mental and behavioral health services, rural patients are left to manage mental health issues on their own and often only seek care during times of crisis.

We collaborate with communities to identify the external factors that contribute to poor mental health outcomes. Our research provides community leaders strategies to address contributing factors to mental and behavioral health issues. The Department also works to connect and coordinate mental and behavioral health professionals with other healthcare providers and social service organizations to treat an individual's comprehensive needs.

Mental and Behavioral Health Initiatives

Human and Community Development. Mental health considerations are at the center of many Human and Community Development Division projects in rural and underserved school districts. We have partnered with public schools to interview administrators, parents, and students about the implementation of a trauma-informed curriculum in schools. We also partnered with a school district and health department to assess food norms and values across generations and increase participation in a summer meals program. Additionally, we are working with school districts to design and implement programs that improve child wellness and prevent issues that lead to child mental health challenges. We have proven success bringing together school districts and other public entities to collaborate and maximize resources for mental and behavioral health.

Epidemiology and Biostatistics. The Epidemiology and Biostatistics Division has had a multi-year project to

understand the transmission of HIV, Hepatitis C, sexually transmitted diseases, and overdose in rural communities and includes a specific focus on individuals battling “diseases of despair” and the stigma that accompanies mental health and drug use. This project hopes to improve access to healthcare and to use harm reduction and referral services in a non-judgmental fashion to allow better engagement with people who use drugs.

Health System Science. The Health System Science Division has included rural mental health as one of the main topics investigated by the Illinois Rural Health Summit. It organizes the SIU System's Illinois Veterans Summit that has a special focus on mental health resources for veterans.

Education. The Education team incorporates mental health considerations in SIU School of Medicine Population Science and Policy curricula and also implements internal workplace wellness programs within our Department.

Looking Forward

The Department is building on its school-based partnerships in rural Illinois to address youth mental and behavioral health. Our Human and Community Development team, led by our Social Innovation Director, will be working with communities to assess need, build advisory boards, design, and then implement school-based programs that build childhood resilience and wellness, as well as prevent mental, behavioral, and developmental disorders. These programs are already underway in Hillsboro and Nokomis, Illinois, and are showing positive impact.



Current health systems are too often disjointed, failing to maximize resources and consider how an individual's complex **SOCIAL**, **EMOTIONAL**, and **ECONOMIC** needs also impact physical health.

Area of Impact

Systems of Care

A greater system of care emerges when equity, mental health, and the social determinants of health are considered by hospitals, health care, social service providers, and community leaders. By working closely with communities through multiple projects and a broad scope of work, we use a multidisciplinary approach to coordinate a network of providers to build meaningful partnerships to meet the distinct and changing needs of communities.

Hillsboro: Catalyzing a Systems Approach to Community Health

Recognizing that a hospital's reach expands well beyond the clinic, Hillsboro Area Hospital (HAH) has partnered with the Department to address their rural community's needs in the hospital, schools, and child development center. The partnership first started when HAH leaders asked us to help improve children's access to early learning opportunities.

After listening to parent, educator, and community needs, our team developed and helped launch the Little Leaps program, which provides every family at the Hillsboro Community Child Development Center a set of age-appropriate items designed to encourage caregiver/child interaction through play. Sets come with simple instructions and information highlighting how the play stimulates brain development. "The activities help the parents think outside the box and come up with simple ideas that can be done at home," said a center staffer. Likewise, parents appreciated the program's ease and simplicity.

The success of Little Leaps sparked an ongoing relationship with HAH. At the request of hospital leaders, our faculty and staff worked to understand why Hillsboro community members were not taking advantage of lung cancer



Developed in partnership with Hillsboro Area Hospital, Little Leaps gives families age-appropriate learning tools to spark discovery and brain development.

screening programs. We discovered that transportation challenges were the most prevalent barrier, which helped HAH develop an informed marketing campaign targeting hard-to-reach patients.

In 2019, HAH leaders approached the Department with an urgent need: Hillsboro was developing a frightening trend in youth suicide attempts. Our team worked with health-care and community leaders to develop a comprehensive assessment of factors that may contribute—or protect from—adverse mental health leading to self-harm. We then helped a coalition of community members use the data from the assessment to choose the supportive programs that would best meet the needs of local youth. We continue to work with the hospital and Hillsboro stakeholders to expand mental health programming further into the community.

Looking Forward

The Department is currently working to enhance systems of care through healthcare transformation efforts. We are partnering with hospitals, clinics, public health departments, and community organizations to uncover new ways to bridge gaps in the healthcare delivery system and increase access to quality healthcare services in underserved communities across the state.



Department of Population Science & Policy

Faculty & Staff

Sameer Vohra, MD, JD, MA, FAAP
Founding Chair

Heather Whetsell, MBA, MSHI
Administrative Director

EPIDEMIOLOGY & BIOSTATISTICS

Wiley Jenkins, PhD, MPH, FACE
Chief, Epidemiology and Biostatistics
Research Professor

Rebecca Bolinski, MA
Graduate Research Assistant

Johnny Bressett, MS
Graduate Research Assistant

Meghan Elgee, MA, MS
Research Project Specialist

Stacy Grundy, DrPH, MPH
Research Assistant Professor

Min Jee Lee, PhD, MPH
Assistant Professor

Allison Spenner, MS
Senior Research Project Coordinator

Trevor Thompson, MPH
Research Project Specialist

Megan White, MSW
Research Project Coordinator

HEALTH SYSTEM SCIENCE

Carolyn Pointer, JD
Policy Director
Assistant Professor

T.J. Albers, MA
Health Policy Coordinator

Vistrit Choudhary, MPP
Health Policy Coordinator

Amanda Fogleman, MEng
Director of Community Engagement
Senior Research Project Coordinator

HUMAN & COMMUNITY DEVELOPMENT

Nicole Summers-Gabr, PhD, MS
Social Innovation Director
Assistant Professor

Anne Scheer, PhD
Assistant Professor

Jessica Cantrall, MPH, CHES
Research Project Coordinator

Corbin Coniglio, MS
Research Project Specialist

Erin Chapel Ham, BS
AmeriCorps Member/
Peace Corps Fellow

Cortnie Schierman, MS, CHES
Research Project Specialist

EDUCATION

Meredith Volle, MPH, MD
Education Director
Assistant Professor

Carol Coniglio, AIC
Medical Education Program Specialist

Tracie Johnson, MA
Instructor

ADMINISTRATION

Kara Bowlin, BA
Director of External Relations

Calista Cahill, BS
Office Manager

Cheryl Roberts, BS
Office Support Specialist



BOARD OF ADVISORS

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Southern Illinois University

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Health Policy and Analytics
The Mitre Corporation

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School of Public Health
University of Illinois at Chicago

Eric D. Hargan, JD

United States Department of Health
and Human Services
Deputy Secretary, 2017–2021

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Health Analysis
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