Rural Illinois is populated with dynamic, innovative and talented citizens. However, rural areas face unique challenges and health disparities which result in much sicker and underserved rural communities compared to metropolitan areas. COVID-19 has disproportionately impacted rural Illinois and has deepened existing challenges. Now, rural Illinois needs solutions.

The pandemic has increased the pressure of strained rural healthcare systems, with many lacking the workforce and hospital beds necessary to treat existing illnesses. As a result, individuals in Illinois' non-metropolitan counties have been infected by COVID-19 at a greater rate than those in Illinois’ metropolitan counties. As of March 13, 2021, there have been 10,760 COVID-19 infections per 100,000 residents in Illinois' nonmetropolitan counties as compared to 9,327 COVID-19 infections per 100,000 residents in Illinois’ metropolitan counties.

Southern Illinois University (SIU) Medicine Department of Population Science and Policy, SIU Paul Simon Public Policy Institute, SIU Medicine Center for Rural Health and Social Service Development and University of Illinois Chicago School of Public Health continued the work of the 2018 Illinois Rural Health Summit and convened rural stakeholders for 11 discussion forums to better understand and address the COVID-19 pandemic in rural Illinois. Using the 2019 report on the most pressing issues facing rural Illinois as a foundation, 80 leaders from 55 organizations in diverse fields such as public health, health care, academia, industry and government met virtually to discuss how the pandemic is creating new challenges and fostering new innovation. Forums focused on 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. Discussion forums participants were also invited to an additional, overarching session to identify common challenges and synthesize impactful solutions. The information, anecdotes and issues raised in this report come from those conversations.

DEFINING “RURAL” IN ILLINOIS

Of Illinois' 102 counties, 62 are considered non-metropolitan. 1.5 million Illinois residents reside in nonmetropolitan and/or rural regions. In an effort to be inclusive, this report uses “rural” to describe non-metropolitan counties.
DISCUSSION TOPICS

CHILDREN’S GROWTH & DEVELOPMENT  NUTRITION & FITNESS  AN AGING POPULATION  OPIOIDS  PUBLIC HEALTH SYSTEMS

ECONOMIC DEVELOPMENT  MENTAL HEALTH  RURAL HEALTH WORKFORCE  HEALTHY HOUSING

IDENTIFIED CHALLENGES

Rural Illinois is in need of sustained, sweeping change to improve the social, economic and environmental factors that determine health outcomes. Illinois’ rural communities suffer from “The Five D’s.” Rural communities start at a DISADVANTAGE due to experiencing food, healthcare, social service and data DESERTS, as well as organizational and technological DISCONNECTION. Rural regions experience similar DISPARITIES to low-income urban areas but experience even fewer DEVELOPMENT opportunities than their urban counterparts.

DISADVANTAGE:

“We need to find the right entry point to solve the problem. We need emphasis on anchor institutions such as schools, healthcare and grocery stores”
- Christopher Merrett, Director, Illinois Institute for Rural Affairs, Western Illinois University, Macomb, IL

Pre-pandemic, Illinois’ rural regions faced significant challenges. Unlike most metropolitan areas, many rural communities never fully recovered from the economic impact of the Great Recession in 2008. These economic challenges are mirrored by devastating health challenges. Rural counties nationwide have a higher rate of smoking, obesity, child poverty and teen pregnancies compared to urban or suburban counties. The result is Illinois residents living in rural areas are more likely to die from the five leading causes of death (heart disease, cancer, unintentional injuries, chronic lower respiratory disease and stroke).
COVID-19 exacerbated existing challenges and hampered the pandemic response. Strained rural healthcare systems lost revenue, incurred additional costs and struggled to meet the needs of the population. These disparities make rural residents more susceptible to the physical effects of COVID-19 as well as the related social and economic impacts. As Figure 1 shows, Illinois’ cumulative death rate as of March 5, 2021, was 203 per 100,000 people in nonmetropolitan counties and 158 per 100,000 people in metropolitan counties.

DESERTS:

“I was thinking about all the obstacles and barriers – and now it has become exponentially worse. Whether it is transportation for people who were getting a ride from a neighbor and now they are not able to do that. We don’t have a bus system – we have “Pretzel City Area Transit,” but people are not riding it. Now people are having fewer appointments, fewer trips to the grocery store. And so whether it’s access to food or transportation, the pandemic has just made everything worse.”
- Michael Perry, MD, Retired Hospital System CEO, Freeport, IL

Many rural communities, both rich and poor, lack access to essential services such as grocery stores, healthcare providers and public transportation and have fewer educational institutions compared to their urban counterparts. COVID-19 has closed essential businesses and reduced access and/or capacity of social services.

Federal data shows already-strained rural hospitals are more in danger of closure with one in five Illinois hospitals reporting a “critical” staff shortage each day. Rural communities also face healthcare provider shortages. Mental health providers are often in shortest supply. Figure 2 shows the vast majority of the state as a mental health provider shortage area with significant shortages in rural counties in central and southern Illinois. Finally, rural regions are often “data deserts” and lack the information needed to make informed decisions to appropriately tackle major challenges.
DISCONNECTION:

“Connectivity is a barrier in our rural community.”
- Dr. Matt Buckman, Executive Director, Stress and Trauma Treatment Center, Eldorado, IL

The Federal Communications Commission reports 31 percent of rural Americans did not have access to broadband at home (2018) whereas just four percent of metropolitan residents lack access to broadband at home. The light green area in Figure 3 shows that wide swaths of Illinois cannot access broadband or internet with speeds of at least 25 mbps. Discussion forum attendees noted in addition to having limited (or no) quality high speed internet access, many rural residents lack the hardware or skills needed to take advantage of high speed internet. A lack of access to technology prevents rural residents from accessing work and learn at home opportunities, applying for jobs or schools online, and maximizing opportunities to receive care via telehealth. Many rural residents, especially older individuals, may either distrust technology or lack the know-how to access services that were pushed online like virtual physician visits.

Rural residents also suffer from disconnected social service sectors. These organizations often operate in silos. The lack of collaboration drains resources through duplication of services and results in squandered prospects for idea generation and barriers to improvement. Many discussion forum participants noted that a collaboration between the healthcare system, schools and public health departments could reduce silos and duplication of services.

DISPARITIES:

“In my district, I deal more with urban populations. I am struck by the similarities between rural and urban healthcare issues. COVID exposed and revealed tech issues and a whole array of things in urban populations that are also present in rural populations. Substance abuse, healthcare disparities, comorbidities, broadband, education. There are a lot of similarities between urban and rural.”
- State Senator Christopher Belt, 57th District, East St. Louis, IL

Though the landscape may look starkly different, disparity is a key reality of both rural and low-income metropolitan communities. Both areas face similar rates of poverty, food deserts, deficiency in high quality childcare and barriers to quality, affordable healthcare. Discussion forum participants from urban and rural areas agree that the disparities are similar but potential solutions may differ. The Brookings Institution found that metropolitan and non-metropolitan low-income adults are most likely to
experience “multidimensional disadvantage” (i.e., are considered low income and one of the following: living in a poor community, limited education, no health insurance or unemployed) compared to counterparts in suburban areas. This shared experience, shown in Figure 4, provides an opportunity for partnership between rural and urban areas to advocate for better policies that meet the needs of both underserved groups.

![FIGURE 4: Brookings Institution Double Disadvantaged Population](image)

As states started implementing COVID-19 vaccination programs, poor communities, especially those predominantly of color, had difficulty accessing vaccination opportunities. Difficulty navigating vaccine registration phone lines and websites, transportation challenges and obtaining time off work to meet appointments have limited individuals in underserved communities from obtaining vaccines. Participants also expressed concern about staffing and implementation capacity for rural vaccination rollout. The state’s commitment to equity needs to remain strong to bridge these vaccination gaps.

DEVELOPMENT:

“Historically, county seats in rural landscapes were centers of commerce, services, governance and social interaction marked with vibrant town squares and handsome courthouses. As we seek to repurpose and re-energize our built environment we have an opportunity to celebrate regional ‘place-ness’ in a manner that reveals a unique and special rural livability that could prove attractive to relocators.”

– Pat McGinnis, Executive Director, Lower Illinois River Valley - Rural Prosperity Initiative, Godfrey, IL

Deep gaps in strong economic and social development persist in many parts of rural Illinois. In a 2018 report, the USDA stated that nonmetropolitan areas had a higher poverty rate, lower education rate and a disproportionate decline in manufacturing employment. Rural regions lack sustained, strategic investment to create connected, vibrant and inclusive hubs that support entrepreneurship, aging in place and nurture the type of communities to retain and attract residents.

COVID-19 relief efforts offered relatively small amounts of financial support for rural regions and the portion of investment for rural communities offered no long-term plan. The Payback Protection Program data shows great disparity in the average loan amount in rural versus urban areas, with rural areas receiving an average of just under $85,000 per loan compared to $113,000 in urban areas. However, pandemic response also offered many employees the opportunity to work from anywhere, opening a new sector of potential residents to take advantage of the low cost of living and natural spaces of rural regions. Rural prosperity and well-being are intrinsically tied to rural America’s ability to thrive in the new global economy. It is important to use rural communities’ diverse and abundant natural resources to shape a unique livability for those embracing a rural lifestyle.
RECOMMENDATIONS

By working together, sharing knowledge and investing strategically, Illinois can improve health in rural regions. The participants of the Illinois Rural Health Summit Discussion Forums made the following recommendations to improve the health of Illinois' rural communities during and after the pandemic.

DIGITAL AND TELEHEALTH DEVELOPMENT

Rural communities are digitally disconnected. On a statewide level, Governor Pritzker’s initiative, Connect Illinois, is working to expand broadband across the state, provide computers to households in need and provide all Illinois public K-12 students access to high speed broadband at no charge.28,29 However, even with improved access, many residents still lack the technological understanding of how to use a computer or smartphone for their work, service or health needs.30 Rural regions need more programs to access high speed internet and hardware and develop the trust and skills required to take advantage of services like telehealth. Early in the pandemic, telehealth visits accounted for 30 percent of total outpatient visits.31 Policies enacted during the pandemic to expand telehealth services and protect health care providers need to be appropriately preserved, ensuring sustained access to important healthcare services.

CROSS SECTOR SYSTEMS OF CARE

Social service sectors must also collaborate to maximize resources and better serve the community. Figure 5 shows an example of the many different social systems that care for a child with a mental, behavioral or developmental disorder.32 Identifying and engaging community champions and local change agents is an important strategy to reach a significant number of residents and engage them throughout the duration of a program. Strong partnerships across sectors can build social capital and help improve the likelihood that community outcomes will improve and programs can be sustained.33 The collaboration of social services would simplify the accessibility of receiving services. The Illinois Children's Healthcare Foundation Children's Mental Health Initiative 1.0 is one example of how these systems can work, funding efforts in Adams, Carroll, Lee, Ogle, Whiteside, Livingston and Sangamon counties.

INCREASE MENTAL HEALTH SERVICES

Mental health and substance abuse issues plague rural Illinois at a disproportionate rate.34 The same area also lacks access to psychologists and substance abuse treatment facilities or services.35 Pandemic-related stress is worsening mental health and substance abuse. The American Farm Bureau found that three in five rural adults say the pandemic has impacted mental health in rural communities a lot or some.36 A report from the North Carolina Division of Public Health found that emergency room visits related to drug overdose have increased by 22 percent compared to last year, with the highest rates of
overdose taking place in rural counties that were hardest hit by COVID-19.\textsuperscript{37} The Lurie Children’s Hospital of Chicago conducted a mental health survey discovering nearly 20 percent of Illinois children are experiencing mental health issues.\textsuperscript{38} Rural regions must decrease the social stigma that accompanies seeking help and invest in prevention, early detection and treatment for mental health and substance abuse. This investment in mental health services needs to integrate behavioral services and substance abuse treatment into primary care as well as invest in piloting and scaling new models of mental health care.

\begin{figure}[h]
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\caption{Illinois COVID-19 Response Regions}
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\section*{Regional Offices of Health}

Rural public health departments and hospitals must avoid duplication of resources and collaborate to work together to solve community health needs, share data and strengthen service delivery by leveraging the strengths of each individual organization. The state’s pandemic response divided Illinois into 11 regions (shown in Figure 6) to track COVID-19 data, hospital capacity, ICU bed availability and other statistics.\textsuperscript{39} This collaboration could be the catalyst of bigger, regional solutions and comprehensive strategies to improve health. Regional Health Needs Assessments and Improvement Plans commissioned by hospitals and public health departments could be a start of such a partnership. Some Illinois regions have already been modeling healthcare/public health partnerships, and the state could look to partnerships in Sangamon County, Montgomery and Macoupin Counties and at the Healthy Southern Illinois Delta Network as examples.

\section*{Statewide Structures of Partnership, Study and Action}

Illinois should strengthen and create new statewide taskforces with the sole purpose to study and act on improving the health of rural and underserved communities. These taskforces, consisting of cross-sector partners, would work to create a legislative and administrative agenda to improve coordination of health, education, economic and social services and identify best practices to improve rural health outcomes. A dedicated taskforce could more rapidly advance improvement in rural and underserved Illinois and build on the work of organizations like SIU Medicine Department of Population Science and Policy, SIU Center for Rural Health and Social Service Development, University of Illinois Chicago Policy, Practice and Prevention Research Center and Illinois Institute for Rural Affairs at Western Illinois University.

\section*{Leadership Retention and Development}

Rural regions need to retain and attract innovative residents. Rural communities should partner with local community colleges and regional universities to create leadership pipelines that grow young leaders, incentivizing them to stay and providing social acclimation to rural communities. These pipelines have shown promise in rural healthcare workforce development but could be expanded to include other industries. The University of Illinois College of Medicine at Rockford \textit{Rural Medical Education (RMED) Program} and Southern Illinois University School of Medicine’s \textit{Lincoln Scholars Program} are two examples. Research found that students who participated in the RMED program were 17.2 times more likely to practice in rural locations and 12.8 times more likely to practice in primary care shortage zip codes than non-RMED graduates.\textsuperscript{40}
Opportunity is dictated by geography and rural regions must nurture an ecosystem that is regionally connected, innovative and rooted in the assets of its local residents and businesses. Rural regions have the opportunity post-COVID to reframe the aspects of rural life by bringing together stakeholders, maximizing resources, and coordinating an effort to improve resiliency and livability of rural Illinois. SI NOW and The Lower Illinois River Valley Rural Prosperity Initiative are examples of how communities can unite to promote regionalism, build capacity, encourage cooperation, make collective impact and identify and call attention to a lineup of key activation projects.

COVID-19 has hurt all Illinois communities. However, health and economic data reveal a disproportionate burden on urban and rural vulnerable communities. Policymakers in the discussion forums understood and identified rural/urban similarities. Urban and rural leaders should unite around policies supporting health equity. This important collaboration would improve the lives of all Illinois residents and help all Illinois communities emerge from the pandemic stronger and better able to withstand future challenges.

We invite policymakers, corporate and community leaders from across the state to come together to work for a healthier Illinois. Success will involve creation of public-private partnerships, measures to effectively show progress and innovation to bring lasting health improvement.

Illinois faces important decisions in the months and years ahead. It is vital to consider the needs of rural Illinois. Together, we can build the momentum to more fully understand the health needs of our communities and create effective programs to sustain health improvement through policy change.

**ENDINGNOTES**

5. "CDC COVID Data Tracker." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, covid.cdc.gov/covid-data-tracker/