Understanding and Addressing Social Determinants of Health: Opportunities to Improve Health Outcomes

A Guide for Rural Health Care Leaders

INTRODUCTION

This guide provides rural health care leaders and teams with foundational knowledge, strategies, and resources to understand the impact of social determinants of health (SDOH) on patients and communities. It organizes key information and resources to help the busy manager support and lead education and discussion with front-line staff. This guide focuses on (1) understanding the need and opportunity around addressing SDOH, (2) using local data to support decision making, and (3) involving team members to plan and implement action steps. It is intended for leaders in a variety of clinical and public or community health settings, and includes the following sections:

1. Build Awareness: Understand SDOH
2. Recognize Needs: Identify Local SDOH
3. Identify Opportunities for Action
4. Plan Next Steps
5. Additional Resources

How to use this guide

Leaders can introduce different sections or topics at team meetings and facilitate discussions among team members. Depending on team member needs, from needing foundational information and data to being ready to begin or enhance efforts to address SDOH, information in the guide can be reviewed in bite-size 15–30-minute team discussions. Leaders might ask team members with interest in the particular topics to facilitate discussion of relevant sections and plan next steps.

Background

Multiple factors influence health outcomes, including underlying genetics, health behaviors, clinical care, social and economic factors, and physical environment. Understanding key factors that influence health is important for people who work in rural communities because many of these factors can contribute to the less-than-optimal health that is often prevalent in rural Americans.

Health disparities among rural residents are well documented, and the COVID-19 pandemic has exacerbated these already existing disparities, especially for people of

Social determinants of health (SDOH) are conditions in the environments in which 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 (Healthy People). Examples of SDOH include employment, food access, housing, transportation, education, and access to affordable quality health services. SDOH can influence health in positive and negative ways.

color.[1,2,3] These disparities have multiple causes, including SDOH. A variety of factors are linked to poorer health in rural communities:[4]

- **Health Behaviors:** Rural residents often have limited access to healthy foods and fewer opportunities to be physically active compared to their urban counterparts, which can lead to conditions such as obesity and high blood pressure. Rural residents also have higher rates of smoking, which increases the risk of several chronic diseases.
- **Health Care Access:** Rural counties have fewer health care workers, specialists (such as cancer doctors), critical care units, emergency facilities, and transportation options. Residents are also more likely to be uninsured and to live farther away from health services.
- **Healthy Food Access:** National and local studies suggest that residents of low-income, minority, and rural neighborhoods often have less access to supermarkets and healthy foods.
- **Demographic Characteristics:** Residents of rural areas tend to be older, with lower incomes and less education than their urban counterparts.

The Centers for Disease Control and Prevention (CDC) notes that addressing SDOH is a primary approach to achieving health equity. Health equity occurs when everyone has the opportunity to attain their full health potential, and no one is disadvantaged from achieving their potential because of social position or other socially determined circumstances.

Rural health care teams can address SDOH and improve the health of patients and community members. As the shift in health care to value-based care and payment moves into its second decade, rural health care organizations are encouraged to embrace their role as community leaders and partners to better coordinate efforts and develop local strategies to address SDOH and improve health. Value-based care provides opportunities to shift resources to address SDOH challenges that obstruct optimal health and misuse health care resources. Addressing SDOH challenges can translate into better health sustainability and improved community health.

BUILD AWARENESS: UNDERSTAND SDOH

The following resources can help deepen understanding of SDOH impacts on patient and community health. Managers or team leaders can use the information to help staff gain new knowledge and insight, develop greater sensitivity to SDOH, and be inspired to address SDOH.

Each of the resources listed in this section is followed by a set of discussion questions. Staff can review the resource(s) in advance or provide a brief overview during team meetings followed by discussion about how the concepts apply locally.

A. Healthy People SDOH Overview

Review the Healthy People website for basic information on SDOH. This website:

- Defines SDOH as “Conditions in the environments in which 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.”
- Outlines five SDOH domains and associated key issues:

SDOH	Underlying factors of the SDOH
Economic Stability	Employment Food Insecurity Housing Instability, Homelessness Poverty Reliable Transportation
Education Access and Quality	Early Childhood Education and Development Enrollment in Higher Education High School Graduation Language and Literacy
Social and Community Context	Civic Participation Discrimination Incarceration Social Cohesion
Health Care Access and Quality	Access to Health Care Access to Primary Care Health Literacy
Neighborhood and Built Environment	Access to Foods that Support Healthy Eating Patterns Crime and Violence Environmental Conditions Quality of Housing Transportation Options

Suggested questions for team discussion

- What SDOH affect people in our community (e.g., access to healthy food, unsafe housing, unreliable transportation)?
- How do these SDOH affect the health of people in our community?
- How might addressing SDOH improve health locally?
- What processes does our organization have in place to help individuals address SDOH needs?

B. County Health Rankings & Roadmaps

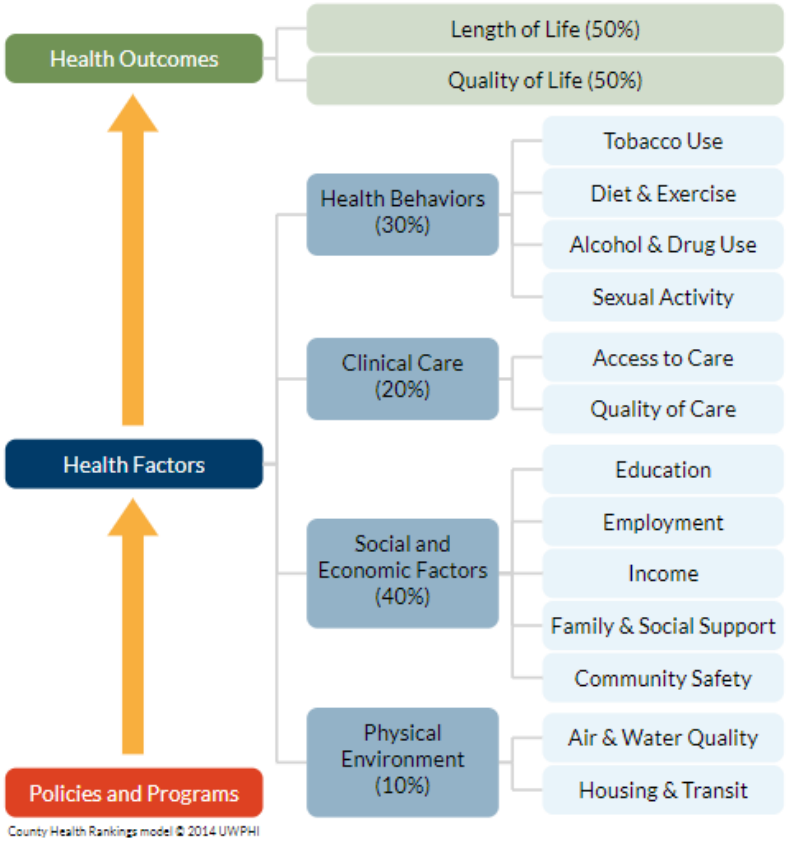
The County Health Rankings & Roadmaps website explores and quantifies factors that influence how long and how well we live. Explore this model to better understand the social factors that influence health.

The County Health Rankings model (below) shows how these factors work together and illustrates where we can take action to improve health.

Suggested questions for team discussion

- What surprised you about factors that influence how long and how well we live?
- How do factors identified affect the health of people in our community?
- Social and economic factors and the physical environment often impact and influence health behaviors. How do you see those connections at play in our community?
- What roles can health care organizations play in addressing SDOH?

County Health Rankings Model



C. Healthy People 2020 Video: Karla (age 6) and James (age 76)

This video (4.53 minutes) discusses determinants of health – what makes some people healthy and others unhealthy. It provides examples of two individuals and how SDOH interventions can improve health outcomes.

Suggested questions for team discussion

- What factors make some people healthy and others unhealthy?
- What can we do to help everyone have a chance to live a long healthy life?
- What does health equity mean?
- How can health care organizations partner with other community leaders on interventions to support health equity?

D. Social Determinants of Health Video: Jeff and Chad

This video (2.53 minutes) shows two men and describes differences in their social and economic status.

Suggested questions for team discussion

- If you cared for these two men in the emergency department or clinic, how might you treat them differently?
- How does income, housing, and diet directly affect health?

- If Chad is unhealthy due to issues beyond his control, how does that fact affect the health care system, the community, the nation?
- What health care system or community resources are available to Chad, or should be developed, that might make a meaningful difference in his health and his life?

E. Need for Addressing SDOH in Rural Communities (Rural Health Information Hub – RHIhub)

The RHIhub website discusses the need for addressing SDOH in rural communities, noting that compared to their nonrural counterparts, people living in rural areas have higher rates of unemployment, lower educational attainment, and less access to health care and social services. These factors directly affect an individual's health and well-being.

You can continue to learn about SDOH and how they affect the health of rural residents by reading the Frequently Asked Questions on the RHIhub website.

RECOGNIZE NEEDS: IDENTIFY LOCAL SDOH

Explore one or more of the three websites below to review data for your local area and compare findings to other counties, the state, or the nation. Using data can support your health improvement work, help you to identify and understand disparities in your community, and reinforce the need to address SDOH. Data can help you to tell a story about your community's health and how SDOH are impacting health. Basic instructions to use and explore the sites are provided below, along with suggested questions for team discussion.

A. Rural Data Explorer (RHIhub)

The Rural Data Explorer website provides a wide range of data on health disparities, SDOH, health care access, health care workforce, demographics, and more. Explore how metropolitan and nonmetro counties compare, nationwide and by state.

Look at SDOH indicators, health disparities, and other health-related measures. Select your state and county and compare it to other counties that are more urban or affluent. You will note disparities between metro and nonmetro counties. For example, poverty and diagnosed diabetes prevalence in nonmetro areas are often higher than in metro areas. Keep in mind that county level sample sizes may be small, and if portions of the county are more metropolitan, those data may outweigh more rural areas of the county, skewing county-level data.

Suggested questions for team discussion

- How do our indicator rates differ from other more urban or affluent counties? Why might there be differences. What are contributing factors?
- What is our rate of prevalence of diabetes? Why is there a correlation between diabetes prevalence, poverty, and rural residence? What factors are at play?
- How does our county compare in the "leisure time physical inactivity" indicator (important because of the correlation between lack of exercise and diabetes, the positive effects of exercise for people with diabetes, and the role of exercise in heart disease prevention)? Why is there a correlation between diabetes prevalence, poverty, and rural residence? What factors are at play?
- How does our county compare in the "overdose deaths per 100,000" indicator? How are SDOH impacting our community members' health and health outcomes in this indicator?

Why is it important to pursue both health care system solutions as well as community-based solutions to address the opioid crisis?
- Did any findings surprise you?

B. How Healthy is Your Community? (County Health Rankings & Roadmaps)

The County Health Rankings & Roadmaps website provides information on how healthy your county is and factors that drive health.

Scroll down to the "How Healthy is Your Community" section, enter your state, county, or ZIP code to review health outcome and health factor data and rankings. Select "areas to explore" and certain findings will be highlighted. Make note of areas to explore in your community or county.

Suggested questions for team discussion
- Which of these "areas to explore" identified for our community play a significant role in influencing health in our community or county?
- How do poverty, rural setting, or other social conditions contribute to these factors?

C. Interactive Atlas of Heart Disease and Stroke (CDC)

According to the CDC, heart disease is the leading cause of death in the United States.[5] However, CDC studies note the significant gap in health between rural and urban Americans. For example, rural Americans are more likely than their urban counterparts to die from heart disease and other leading causes of death (cancer, unintentional injury, chronic lower respiratory disease, and stroke).[6] The 2015 American Heart Association scientific statement on the Social Determinants of Risk and Outcomes for Cardiovascular Disease emphasizes the importance of addressing social determinants to achieve the 2020 goals of promoting cardiovascular health for all.[7]

The CDC provides detailed county-level maps that allow you to review cardiovascular disease (CVD) death rates and look at factors including race, education level, and urban/rural status. Use these maps to review data for your county and state.

For example, from the interactive atlas, select the US map state level, then select your state. In the Select Data and Filters Area, click on the + sign next to Heart Disease and Stroke Data, then click on the + sign next to All Heart Disease. Click on Deaths, then click on "apply filters."

You will see a map of your state, with each county colored to show heart disease deaths per 100,000. Click on your county and select the View County Report option to see details about the race and ethnicity breakdown of heart disease deaths in your county.

Suggested questions for team discussion
- Are heart disease death rates in our county different from those in other counties in our state?
- If they are different, why might this be?
- Modifiable factors, including blood pressure, smoking status, physical activity, diet, weight, cholesterol, and blood glucose, contribute to heart disease.[8, 9]
  Is there evidence that one or more of these factors might impact people in our county? You can find county-level data regarding these factors in the RHIhub Rural Data Explorer and selecting health disparity indicators.

IDENTIFY OPPORTUNITIES FOR ACTION

Involve team members in discussions on the following topics. These questions will guide you through the first steps in a basic quality improvement process (using data to understand the problem or opportunity more deeply, learning about evidence-based or best practice, connecting with partners, and anticipating barriers). Suggested discussion questions are provided, along with links to resources and additional information.

A. Review the Data

In the section above, you reviewed and discussed data on health disparities, demographics, health care access, SDOH, and more. Identify who has done a *community needs assessment* for your community and review the results, or conduct a community needs assessment if you do not have one. Note that nonprofit hospitals are required to do a community needs assessment every three years. More on conducting a community health needs assessment is available here.

Suggested questions for team discussion

- What are key SDOH impacting our patients and community members?
- How are these SDOH impacting health and health outcomes?
- What does our community needs assessment tell us about our SDOH needs?

B. Identify and Connect to Local Activities Already in Place

Suggested questions for team discussion

- What strategies have already been implemented, and what has worked well in addressing SDOH in our health care system and in our community (for example, initiatives to increase access to fruits and vegetables or to increase physical activity)?
- What additional areas might be priorities to address?
- Are there opportunities to better connect patients and families to current initiatives or to provide support and resources that could strengthen local resources?

C. Learn from Others

Review stories about other communities and providers that are addressing SDOH:

- Community stories. Filter stories by state, partners, health factors, and more.
- Examples addressing SDOH. Review examples of rural organizations that are addressing SDOH in their communities.
- Rural health models and innovations. Select browse by topic.
- Review two examples of rural counties working to address issues associated with diabetes, particularly food and exercise.
    - Lakewood Engage, Lakewood Health System in Minnesota, includes food access initiatives that increase access to safe, nutritious, and affordable food for positive health impact.
    - "Moving Starke County across America" Campaign, Starke County, Indiana, focused on factors that contribute to premature death: obesity, physical activity, etc. The goal of the campaign was for residents to be more active.

Suggested questions for team discussion

- What ideas are inspiring? What initiatives might we consider in our community?

D. Identify and Connect with Key Partners

Suggested questions for team discussion

- What community partners should we work with to leverage resources to address SDOH?
  - Potential partners are listed here, and another resource to help you think about the people in your community who make positive changes happen, and tips for reaching out to new partners is here.
  - "A Guide for Rural Health Care Collaboration and Coordination" discusses how rural providers can work together to identify the health needs in their communities, create partnerships to address those needs, and develop a "community-minded" approach to health care. It includes key lessons learned from rural health leaders on implementing collaboration and coordination strategies.

E. Consider Potential Barriers to Addressing SDOH and How to Overcome Them

Suggested questions for team discussion

- What barriers have we faced in addressing SDOH in our health care system and in our community?
- How have we or can we overcome these barriers?
  - "Challenges and Barriers to Addressing Social Determinants of Health in Rural Areas" from RHIhub may be helpful to review.
- If you are working with clinicians, what concerns might they have about involvement in SDOH? What is the clinician's role in population health and supporting integration of SDOH into health care?
  - "Social Determinants of Health 101 for Health Care: Five Plus Five" describes five things we know about SDOH and five things we need to learn to address SDOH. The article discusses several concerns that clinicians may raise about involvement in SDOH, for example, that SDOH is not their domain of expertise or current accountability.

PLAN NEXT STEPS

A quote by Abu Bakr, a sixth century Muslim leader, sums up why action planning is included: "Without knowledge, action is useless and knowledge without action is futile."

In working through this guide, your team has built foundational knowledge to understand the impact of SDOH on your patients and community, and the need and opportunity around addressing SDOH. You have reviewed data to support decision-making and you are ready to synthesize the information and plan, implement, and measure steps to address SDOH. Resources are available to help with next steps.

A. Discuss the Following Questions with Your Team and Make Decisions About Next Steps

- How can we get involved in or lead efforts in our community to broadly address SDOH?
- What processes can our organization put in place to support individual patients and families with SDOH needs?
- What additional opportunities might we pursue?
- How will we prioritize where to focus?
- What do we need to do to get started?
- What resources can we draw on to support our efforts to address SDOH?
- How will we know if actions that we take are making a difference?
- What measures can we use to evaluate our work and its impact?

If you need assistance in answering these questions, see the resources listed in Subsection C below.

B. Develop and Implement Your Plan

- Assign key roles for your initiative (e.g., project manager, project champion(s), and/or executive sponsor).
- Establish measurable goals.
- Ensure leadership support for the initiative demonstrated by allocation of resources (e.g., time and education) and authority to promote implementation success.
- Identify an internal team to plan, implement, monitor, and measure changes.
- Identify, contact, and work with community partners and community-based organizations.
- Prioritize and choose specific interventions.
- Identify measures to evaluate progress and impact.
- Anticipate barriers and plan for how to overcome barriers.
- Develop a written action plan, including a timeline and a communication plan, to update everyone who is involved and interested in the initiative.
- Closely monitor the plan as it is implemented. Monitor your identified measures. Establish feedback loops to assess progress early and often.
- Prepare to adapt interventions as lessons are learned.

C. Review and Use Key Resources Linked Below to Help Your Team Plan and Implement Next Steps to Address SDOH

- **Steps to Move your Community Forward (County Health Rankings & Road Maps Action Center)**
  In this resource, review the five steps to address SDOH and improve health equity: (1) assess needs and resources, (2) focus on what is important, (3) choose effective policies and programs, (4) act on what is important, and (5) evaluate actions. Key activities and tools are provided for each step. For example, in the section on choosing effective policies and programs, there is an option to find strategies by topic. This is a starting place to find ideas to address your community's priorities. The best available evidence is summarized, and policies and programs that can help improve health behaviors, clinical care, social and economic factors, and the physical environment are shared. Strategies can be sorted by "decision maker," such as health care, public health, or nonprofits, to generate ideas for where your organization might lead efforts to address SDOH.

- **Social Determinants of Health Resources (Healthy People 2020)**
  This site provides a variety of resources, organized by domain (Economic Stability, Education, Health and Health Care, Neighborhood and Built Environment, and Social and Community Context) to help you get started and explore the ways communities across the country are addressing SDOH. Also provided are SDOH literature summaries and a snapshot of the latest research related to specific SDOH.

- **Social Determinants of Health in Rural Communities Toolkit (RHIhub)**
  This toolkit compiles evidence-based and promising models and resources to support organizations implementing programs to address SDOH in rural communities across the United States. Sections include introduction, program models, program clearinghouse, implementation, evaluation, funding and sustainability, and dissemination.

- **Social Determinants of Health (Culture Care Connection)**
  If you are further along in your efforts to address SDOH, consider more formal data capture around SDOH including risk screening tools and referrals. This website provides information on risk screening tools and resources, e-referral vendor solutions, and more.

ADDITIONAL RESOURCES

A. The Role of Social Determinants of Health in Value-Based Payment Models: A Rural Perspective (National Rural Health Resource Center)
This 53-minute recorded online seminar enables listeners to gain an understanding of SDOH and how they affect health and well-being in rural communities. Explore examples of rural health providers, together with community partners, leveraging value-based payment models to address SDOH. The online seminar also summarizes available resources to support rural health providers and community partners to effectively address SDOH.

B. Preventing Chronic Diseases and Promoting Health in Rural Communities (CDC)
The CDC website presents information showing that people who live in rural areas are more likely than urban residents to die prematurely from all the five leading causes of death: heart disease, cancer, unintentional injury, chronic lower respiratory disease, and stroke. The CDC reviews the causal factors in rural health disparities (including health behaviors, health care access, healthy food access, and demographic characteristics) and notes that these factors are linked not only to increased mortality, but also to increased morbidity.

C. About Rural Health (CDC)
The CDC website highlights differences in the number of health disparities experienced by rural Americans compared to their urban counterparts. The CDC discusses why rural Americans are at greater risk for poor health outcomes and what can be done to improve the health of rural Americans.

D. Rural Prevention and Treatment of Substance Use Disorders Toolkit (RHIhub)
The toolkit provides evidence-based examples, promising models, program best practices, and resources that your organization can use to implement substance use disorder prevention and treatment programs. There are seven modules in this toolkit. Each module contains resources and information to develop, implement, evaluate, and sustain rural programs to prevent and treat substance use disorder.

November 2021

END NOTES

[1] US Centers for Disease Control and Prevention. COVID-19 cases, data, and surveillance: hospitalization and death by race/ethnicity. https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html

[2] Rubin-Miller L, Alban C, Artiga S, Sullivan S. COVID-19 racial disparities in testing, infection, hospitalization, and death: analysis of Epic data. Published September 16, 2020. https://www.kff.org/coronavirus-covid-19/issue-brief/covid-19-racial-disparities-testing-infection-hospitalization-death-analysis-epic-patient-data/

[3] Rural Health Disparities. Rural Health Information Hub. https://www.ruralhealthinfo.org/topics/rural-health-disparities

[4] Rural Health, Preventing Chronic Diseases and Promoting Health in Rural Communities. Centers for Disease Control and Prevention. https://www.cdc.gov/chronicdisease/resources/publications/factsheets/rural-health.htm

[5] Leading Causes of Death. Centers for Disease Control and Prevention. https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm

[6] Leading Causes of Death in Rural America. Centers for Disease Control and Prevention. https://www.cdc.gov/ruralhealth/cause-of-death.html

[7] American Heart Association. Social Determinants of Risk and Outcomes for Cardiovascular Disease. Originally published Aug 2015.Circulation. 2015;132:873–898. https://www.ahajournals.org/doi/10.1161/cir.0000000000000228

[8] Brown JC, Gerhardt TE, Kwon E. Risk Factors for Coronary Artery Disease. Stat Pearls. 2021. https://www.ncbi.nlm.nih.gov/books/NBK554410/

[9] Yusuf S, Joseph P, Rangarajan S, et al. Modifiable risk factors, cardiovascular disease, and mortality in 155 722 individuals from 21 high-income, middle-income, and low-income countries (PURE): a prospective cohort study. The Lancet, Volume 395, Issue 10226, P795-808, March 07, 2020. Published September 03, 2019. DOI:https://doi.org/10.1016/S0140-6736(19)32008-2. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)32008-2/fulltext

Developed with funding from the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $500,000 with 0% financed with non-governmental sources. The contents are those of the authors(s) do not necessarily represent the official views of, nor an endorsement by HRSA, HHS or the U.S. Government.