



## US Health System is Changing: Population and Health Value

Nursing 830 Clinical Applications

May 10, 2023

NDSU School of Nursing (Fargo and Bismarck)

Presented by Brad Gibbens, Acting Director  
and Assistant Professor



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- Established in 1980, at The University of North Dakota (UND) School of Medicine and Health Sciences in Grand Forks, ND
- One of the country's most experienced state rural health offices
- UND Center of Excellence in Research, Scholarship, and Creative Activity
- Home to seven national programs
- Recipient of the UND Award for Departmental Excellence in Research

**Focus on**

- Educating and Informing
- Policy
- Research and Evaluation
- Working with Communities
- American Indians
- Health Workforce
- Hospitals and Facilities

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### The Importance of Values

*Ultimately our values guide our perceptions toward health,  
health care, our view of the importance of "community",  
and the development of public health policy*

**"It is not what we have that will make us a great nation, it is how we decide to use it"**

*Theodore Roosevelt*

**"Vision is the art of seeing things invisible"**

*Jonathan Swift*

**"Americans can always be relied upon to do the right thing...after they have  
exhausted all the other possibilities"**

*Sir Winston Churchill*

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## What is this whole “community thing” and rural health?

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### What Is Rural Health?

- Rural health focuses on **population health** (“community”) and improving overall **health status** for rural community members
- Rural health relies on **infrastructure** – the organizations, resources, providers, health professionals, staff, and other elements of a health delivery system working to improve population health (the **rural health delivery system**)
- Rural health ***is not*** urban health in a rural or frontier area
- Rural health focuses on **health equity and fairness**
- Rural health is very **community focused and driven** – interdependent and collaborative
- Rural health is inclusive of **community sectors** – 1) health and human services, 2) business and economics, 3) education, 4) faith based, and 5) local government

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Stutsman County



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### Rural and Urban Strengths and Weaknesses

*Rural*

*Urban*



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### Why is Community Engagement Important to Rural Health for Population Health Improvement

- Health care providers and organizations cannot operate in isolation
- **The US Health System is Changing, in fact it has changed** – new payment models – movement from volume payments to value based payments as more and more providers are assessed and reimbursed on outcomes and patient satisfaction. **ND Rural Health Value and RRHVN**
- **Community members input on needs, issues, and solutions more critical than ever** – community involvement in finding solutions (CHNA) that reflect their needs – **community ownership not just the health providers.**
- **Building local leadership and local capacity** – think of the next generation of community leadership.
- **Communication** – listening to the community – educating the community.

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### Rural ND on a Pathway to Value (Structural Changes for Population Health)

- **North Dakota Rural Health Value (ND RHV)**
  - CDC Health Equity funds –CRH over \$3 million -5 projects.
  - Volume to Value is one – 2022-2023.
  - ND RHV – U of IA, Stratis Health, HealthPoint Health – 1 year project.
  - 5 CAHs intensive, all 37 overview, Environmental Scan, Community Engagement, modeling of ND CAH data on various value models.
- **Rough Rider High Value Network.**
  - 23 CAHs – independent (will grow)
  - Non-Profit.
  - Maintain independence and autonomy but work as a network.
  - Shared services –new services difficult for one hospital to establish on own.
  - Joint purchasing.
  - Develop value-products/process, prepare for contracts
  - Population health focus – improve health, better care, lower cost

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**What is population health and  
how does this relate do social  
determinants of health?**

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## Population Health

**“Health outcomes of a group of individuals, including the distribution of such outcomes within the group.” (Kindig, *What is Population Health?*)**

- Groups can be based on geography, race, ethnicity, age, language, or other arrangements of people
- Focus – Health Outcomes (what is changed, what are the impacts, what results?)
- What determines the outcomes (determinants of health)?
- What are the public policies and the interventions that can improve the outcomes?

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## Health Equity

- “Attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities.” (Healthy People 2020)
- Equity is aspirational and it relates to previous discussion on our personal and societal values. (e.g. health care as a right)
- To achieve some level of equity we must first address disparities.

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## Health Disparity

- “a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.” (Healthy People 2020)
- Social Determinants of Health are factors to consider.
- We work to address SDOH to address disparity so as to achieve health equity and to improve population health (very simple 😊).

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## Factors Contributing to Health

Outside Health Care System	Related to the Health Care System	
Societal Factors	Care Delivery	Regulatory Environment
<ul style="list-style-type: none"> <li>• Food Safety</li> <li>• Health food availability</li> <li>• Housing conditions</li> <li>• Neighborhood violence</li> <li>• Open space and parks/recreation availability</li> <li>• Genetic inheritance</li> <li>• Disease prevalence</li> <li>• Income levels</li> <li>• Poverty rates</li> <li>• Geographic location</li> <li>• Unemployment rate</li> <li>• Uninsured/underinsured rate</li> <li>• Median age</li> <li>• Sex</li> <li>• Race/ethnicity</li> <li>• Pharmacy availability</li> <li>• Care-seeking behaviors</li> <li>• Health literacy</li> <li>• Patient choice</li> <li>• Morbidity rates</li> <li>• Transportation availability</li> </ul>	<ul style="list-style-type: none"> <li>• Quality of care</li> <li>• Efficiency</li> <li>• Access</li> <li>• Physician training</li> <li>• Health IT system availability</li> <li>• Distance to and number of hospitals, primary and urgent care centers, retail clinics, etc.</li> <li>• Provider supply (MDs, RNs, etc.)</li> <li>• Physician mix (primary versus specialty care)</li> <li>• Payer contracts</li> <li>• Physician employment and payment structure</li> <li>• Disease management</li> <li>• Populations subgroup disparity</li> <li>• Advanced technology availability</li> <li>• Care integration and coordination</li> <li>• Behavioral health availability</li> <li>• Cultural and linguistic access</li> </ul>	<ul style="list-style-type: none"> <li>• Medicare payment rates and policies</li> <li>• Medicare and Medicaid care delivery innovation</li> <li>• CON regulation</li> <li>• Medicaid/CHIP policies (payment rates, eligibility)</li> <li>• Implementation of ACA</li> <li>• Local coverage determinations (LCDs)</li> <li>• Other local, state, and federal laws that impact the way health care is delivered and which treatments are provided</li> </ul>

Source: Hospital Research Education Trust, *Managing Population Health, The Role of the Hospital*, AMA, 2012



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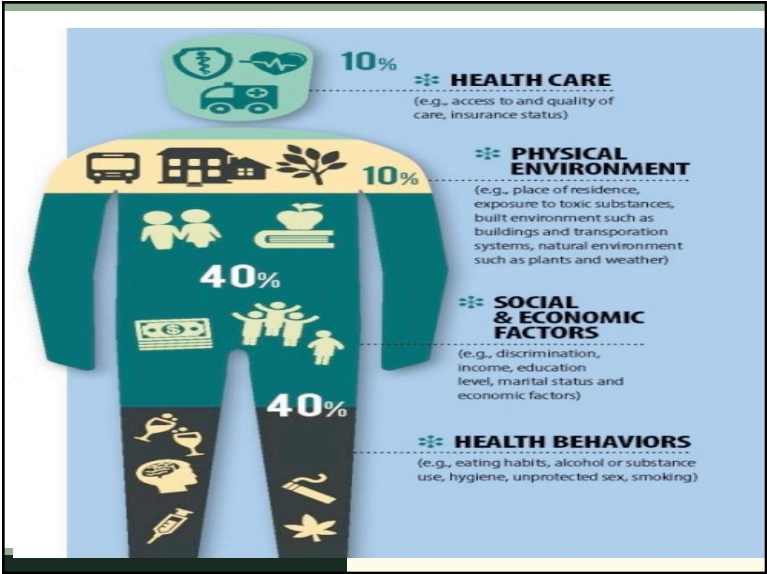
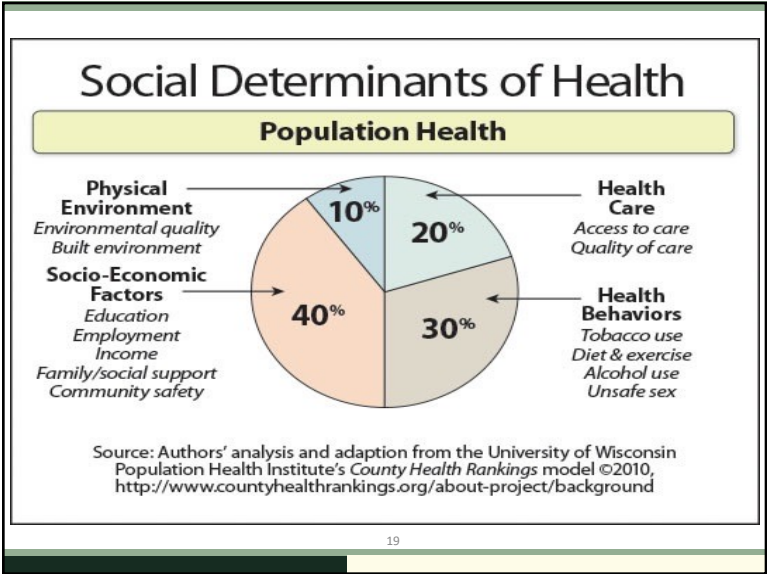
### Social Determinants

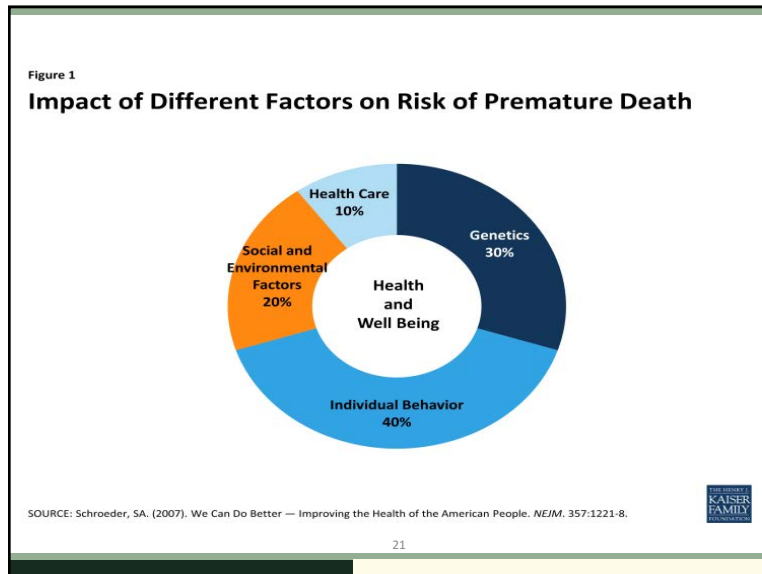
**World Health Organization definition:**

"the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics."

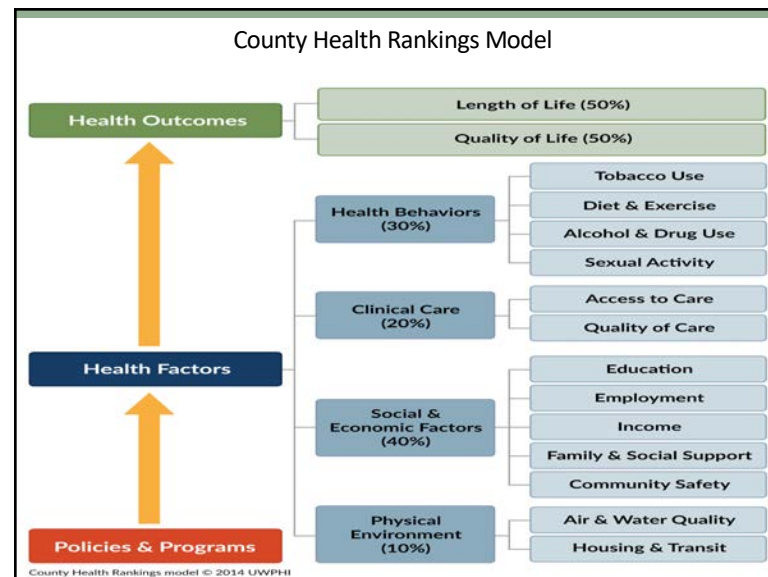
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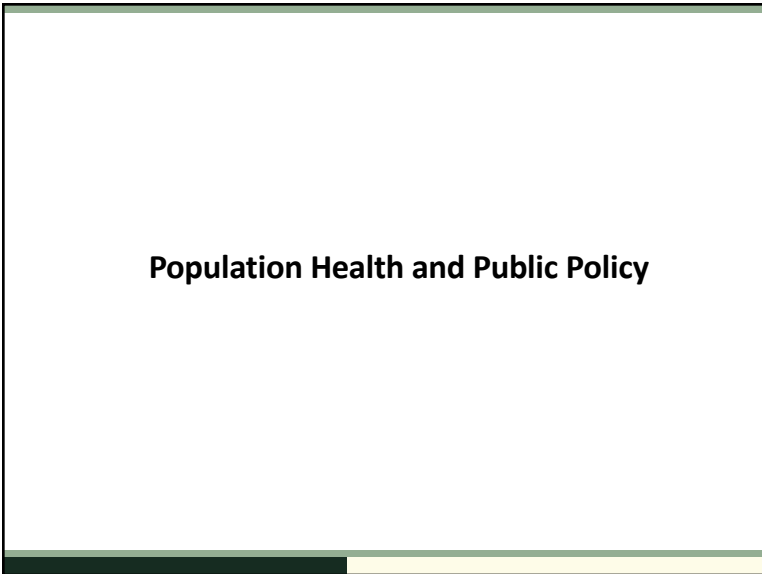
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### Population Health in the Affordable Care Act (2010)

- Provisions to expand insurance coverage by improving access to the health care delivery system (Medicaid expansions, state insurance exchanges “Marketplace”, support for community health centers, NHSC, safety net)
- Improving the quality of the care delivered (National Strategy for Quality Improvement, **CMS Center for Medicare and Medicaid Innovation**, and establishment of the Patient-Centered Outcomes Research Institute)

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### Population Health in the Affordable Care Act

- **CMS Innovation Center** – development and testing of innovative health care payment and service delivery models (better care, better health, and lowered costs through improvements in the health system)
  - **Alternative Payment Models**
    - This is value based or movement from “volume to value” (care coordination).
    - Accountable Care Organizations (ACO)- Shared Savings is most common- 8 CAHs in ND – *Nationally 1/3 of all 1350 CAHs in an ACO.*
    - MACRA and MIPS (system change an alternative payment models – clinicians).
    - Continuous change and evolution since 2014.
      - ✓ A range of ACO models and shifts to consolidation.
      - ✓ Yet a new rural ACO model in 2024.
    - Simultaneous focus on increase quality and lowering cost.
    - Accepting risk – Trump administration was “risk on steroids” and continues with Biden.
- **BCBSND Blue Alliance**

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### **Population Health Impacted by 2021 Infrastructure Act**

- \$1.2 trillion – physical infrastructure that can improve population health
- “Once in a generation investment...think long term”
- Focus
  - Clean drinking water – replace lead water pipes
  - Roads and bridges
  - Air quality
  - Plug orphan oil wells
  - High speed internet –broadband – telehealth access
  - Electric transmission –invest in a clean energy power grid

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### **Population Health Impacted by 2022 Inflation Act**

- Lower prescription costs – Medicare –cap of \$2,000 yearly.
- Insulin cost capped at \$35 a month (Medicare) and no deductible.
- Medicare can negotiate prices with drug manufacturers.
- Lower health insurance costs in Marketplace. Caps on out of pocket costs
- Reduce carbon emissions by 40 percent.
- Reduce deficit – minimum large business tax.

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## Population Health Impacted by 2022 Omnibus Budget Act

- \$1.7 Trillion Package (including health impacts)
- Telehealth extension.
- APM (Alternative Payment Model) Bonus- expand value payments which include population health.
- Nursing and Allied Health Education payment.
- Extends funding for CHIP.
- Extends coverage for children under Medicaid and CHIP.
- Improves Medicare mental health services.

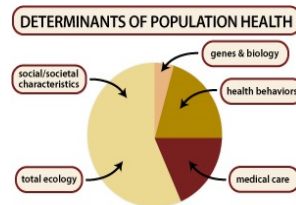
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## Population Health Provides the Best Definitional Framework

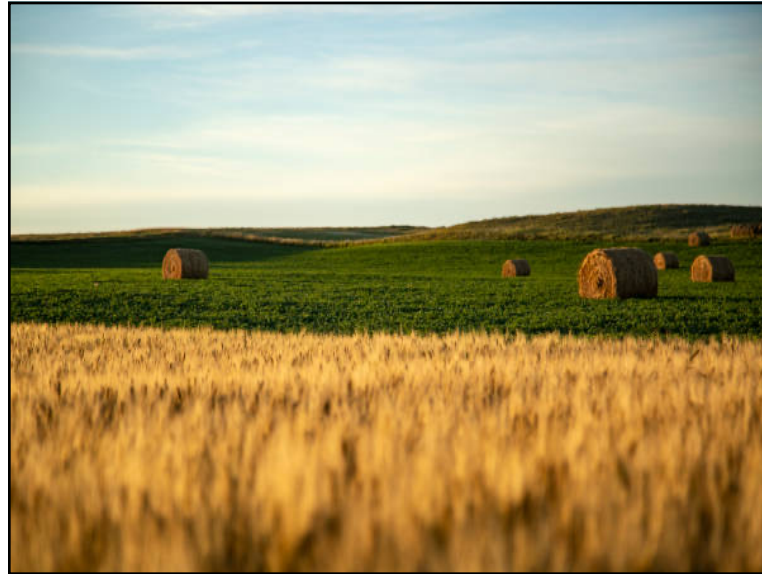
It focuses on measurable outcomes from multiple sectors

- Clinical outcomes
- Education levels
- Poverty rates
- Environmental factors

Creating a holistic picture of  
a community's health



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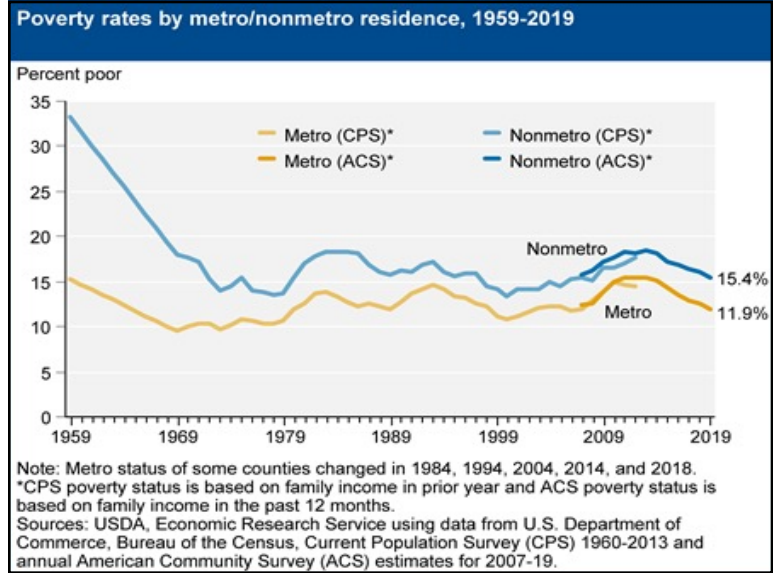


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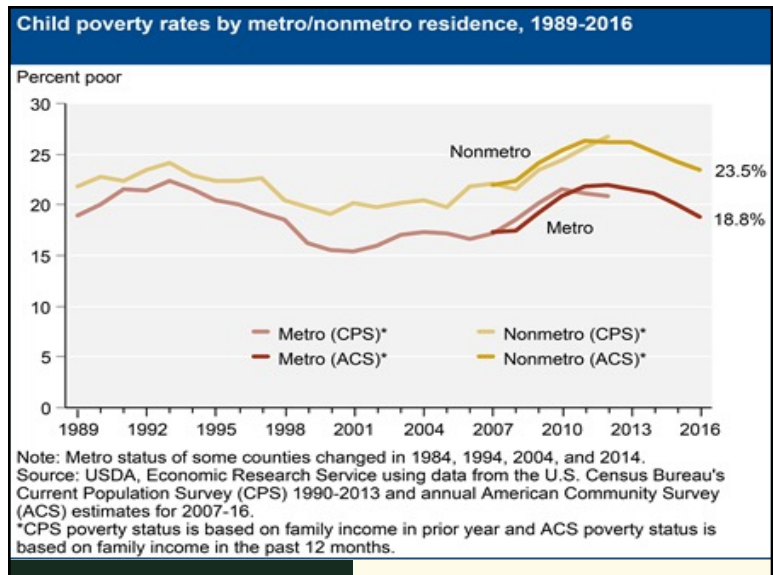
## Social and Economic Factors of SDOH

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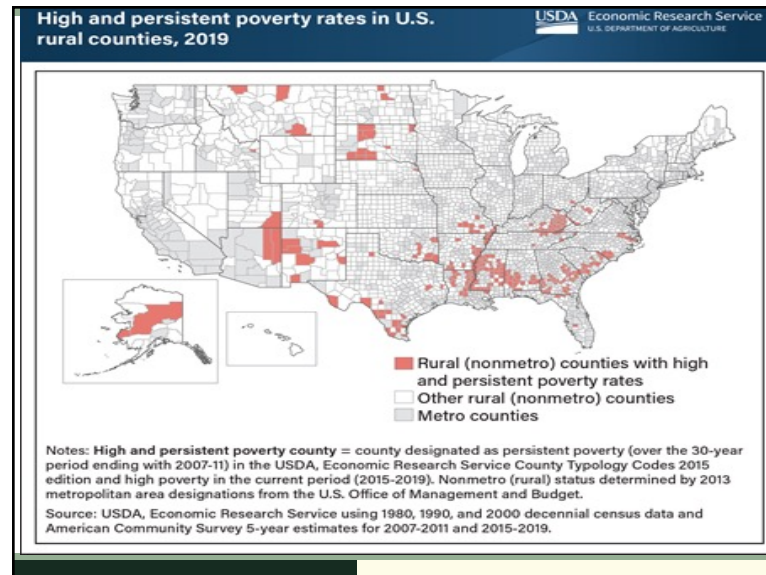
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## SDOH for Rural American Indian and Alaska Natives

- **Rural American Indian/Alaska Native (AI/AN) populations experience both personal and community disadvantages.** In 2016, rural AI/AN were:
  - More likely to live in poverty (29%) than their rural white peers (10%).
  - More likely to live in counties falling into the highest quartile in the US for the proportion of households in poverty (61% of rural AI/AN rural residents versus 46% of rural white residents).
  - More likely to live in persistent poverty counties (37%) of rural AI/AN versus 9% of rural white residents).
  - Rural AI/AN adults were much more likely to live in counties where > 16% of the population lacked health insurance (55% versus 19%).
  - Rural AI/AN age adjusted mortality rates were higher than those of white residents.
  - Prevalence of self reported poor/fair health was 23% for AI/AN versus 16% for white residents.
  - Higher obesity – 35% vs. 31%.
  - (Source: *Rural and Minority Health Research Center, University of South Carolina, July 2019*).



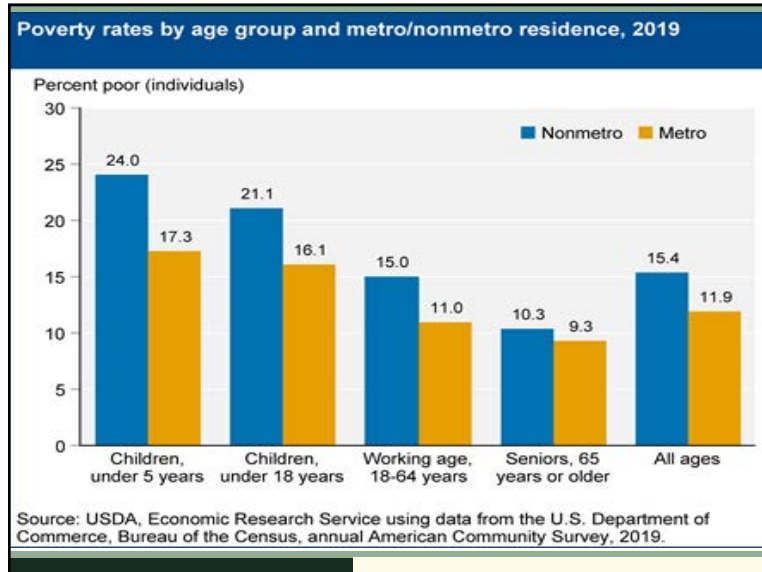
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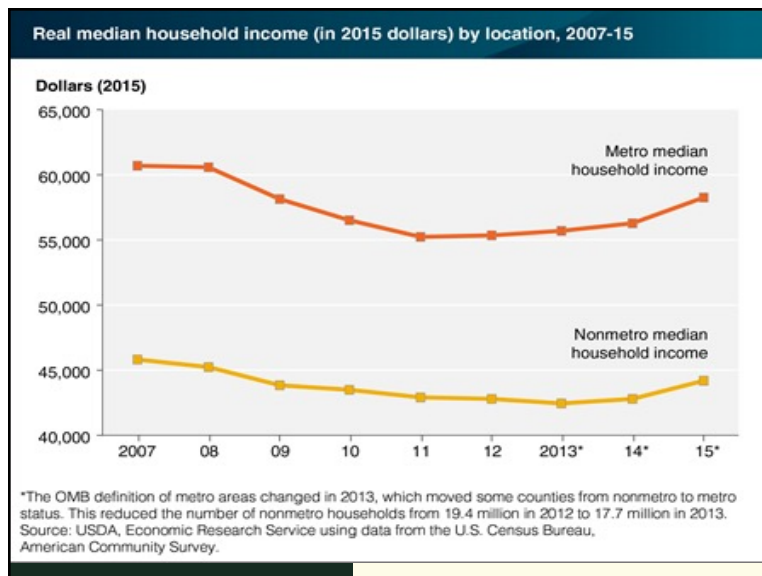


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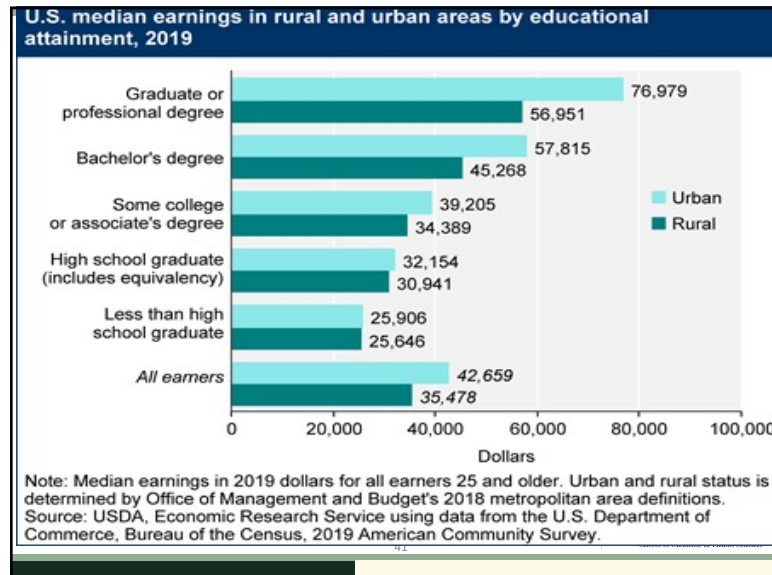
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## Physical Environment Factors of SDOH

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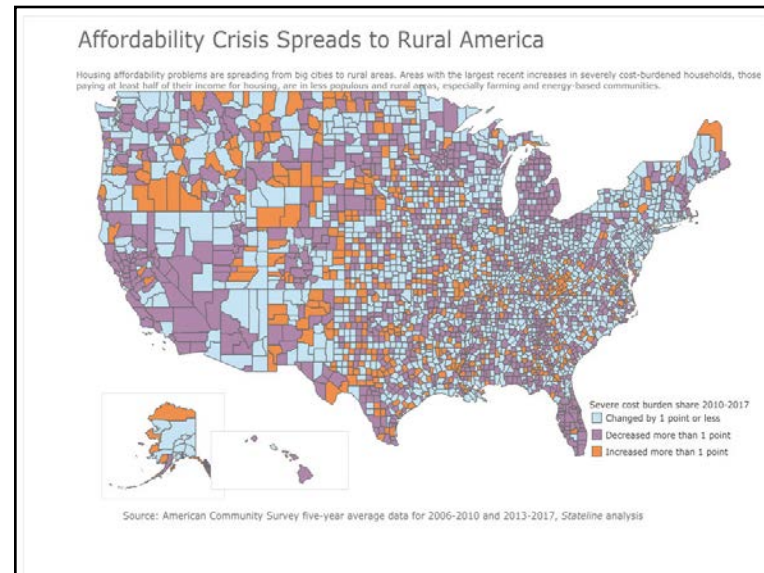
## Rural Housing Challenges

### Some of the key housing concerns that impact health include:

- Plumbing and wastewater systems (or lack thereof), which can impact water quality and contribute to illness.
- Heating and cooling methods, which impact indoor air quality and safety, for example through the use of kerosene heaters.
- Lack of smoke alarms, carbon dioxide, and carbon monoxide detectors.
- Weatherization needs and energy costs, which impact whether a house can be maintained at a temperature healthy to its inhabitants.
- Safety concerns such as lead-based paint, mold, and pests.
- Overcrowding, which can spread communicable disease and also negatively influences issues such as substance abuse and domestic violence.
- Rural minorities are twice as likely as non-Hispanic whites to live in **substandard housing**.
- Rural renters are more likely to live in substandard housing and to experience multiple housing problems related to affordability, quality deficiencies, and crowding, compared to rural homeowners.

(Source: Rural Health Information Hub -RHI Hub)


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### Rural Transportation Challenges

- **University of Minnesota Rural Health Research Center-** Key Informant interviews from 50 states (2017)
- **Issues**
  - Infrastructure
  - Geography
  - Funding
  - Accessibility
  - Political Support


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**Health Care Factors on SDOH**



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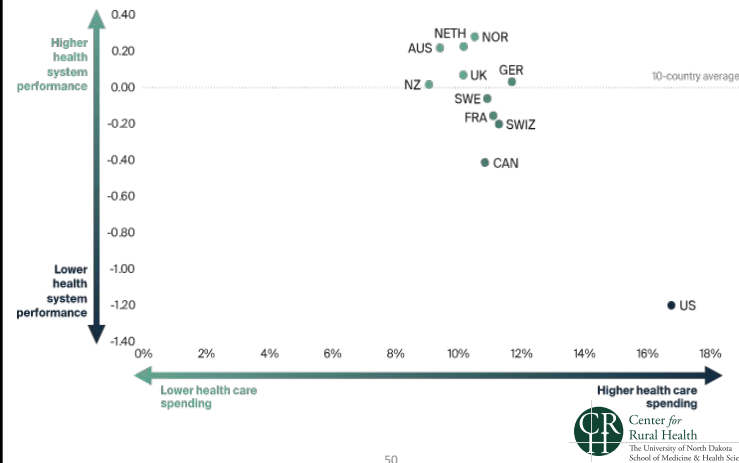


## General Observations on the Health Care System

- Most people give too much credit to health care/clinical care when thinking of their health and not realizing it is likely 10-20% of health status.
- US spends more on health care than any other country at about \$4.3 Trillion a year in 2022 (\$12,900 per capita vs. Germany, \$7,400; Netherlands, \$6,700; France, \$6,100; Canada, \$5,900; United Kingdom, \$5,400; and Japan, \$4,700. (Data 2022 Commonwealth Fund)
- 18% of US GDP – Germany, 13%; Netherlands, 11%; Canada, 12%, and GB, 12%. (Data 2021 Commonwealth Fund)
- We spend more yet health outcomes are lower.
  - Lower life expectancy with the US at 78.6 years and Switzerland at 83.6 years. (Varies by race). American Indian is about 73 years.
  - US has highest chronic disease burden.
  - US has highest suicide rate.
  - US has highest rates of obesity.
  - US residents visit medical providers less frequently.
  - US second highest rate of hospitalization for hypertension and diabetes.

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## Health Care System Performance Compared to Spending (August 2021 Commonwealth Fund)



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**Health Behavior Factors on SDOH**



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## General Observations on Rural Health Behaviors

- **Health behaviors include activities** like physical activity, diet and nutrition, social engagement, safety, avoiding tobacco and other harmful substances, and other actions that contribute to general health and quality of life (Determinants of Health in Rural Communities, Henning-Smith).
- Rural have **limited access to healthy food** and fewer opportunities to be physically active compared to urban.
- Rural residents **higher rates of smoking, higher risk jobs, higher sedentary life style, and lower rates of maintaining healthy body weight** (Henning-Smith).
- Can lead to **greater rates of obesity**, high blood pressure, diabetes, and cancer.
- Can lead to **higher rates of poor health outcomes and mortality** (Henning-Smith).
- Consider how socio-economic, physical, and health care **all influence health behaviors**.



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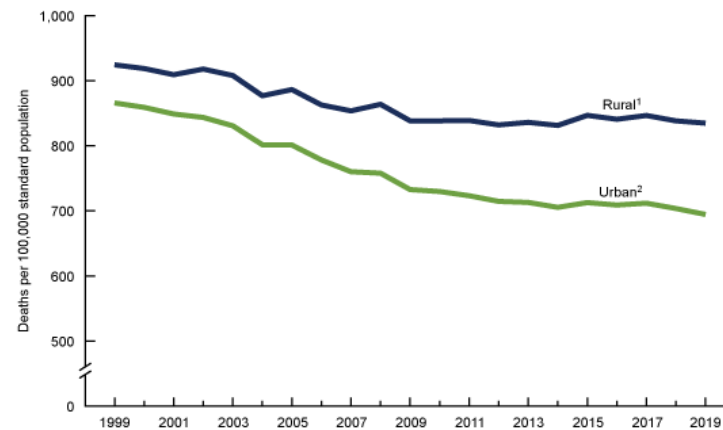
## Rural Mortality

- Cause-specific mortality is often higher in rural counties than urban counties
- Risk factors contribute to high mortality rates in rural areas
  - Smoking
  - Obesity
  - Physical inactivity
- High mortality rates and risk factors are a reflection of the physical and social environment in which people live and work

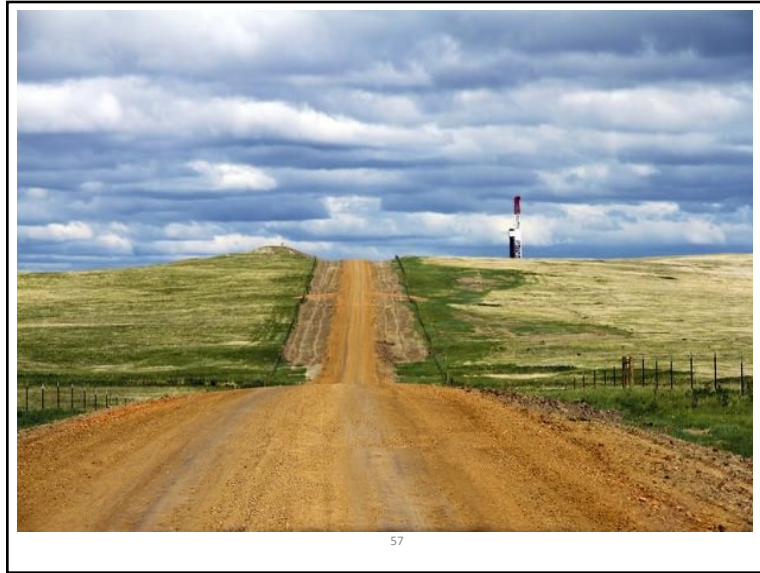
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Age-adjusted death rates, by urban-rural classification:  
United States, 1999–2019



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**Ok, I get the rural and community angle, and I get the population health and determinants of health but how do rural communities and providers respond to issues?**

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### Health Issues According to Rural North Dakotans 2020

- **CRH Community Health Needs Assessment Process (CHNA)** in 2017-2019 conducted with rural hospitals and many public health units (required under ACA for non-profit)
- All 36 CAHs reporting
- Top 2-5 ranked community health issues -139 needs ranked (3.9 per CHNA) -25 categories
- **Issues**
  - Substance Abuse 30 of 36 CAH communities
  - Mental Health 30 of 36 CAH communities
  - Attracting and retaining young families 16
  - Having enough child daycare services 11
  - Ability to retain primary care providers 11
  - Availability of resources elders in their homes 6
  - Not enough jobs with livable wages 5
  - Cancer 4
  - Obesity 4
  - Affordable Housing 3
  - Bullying/Cyberbullying 3
  - Cost of health insurance 3



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### Rural ND Addressing Community Health (CHNA)

- **Obesity and physical activity**

- Community farmer's market
- Pilot wellness programs with hospital staff
- Monthly cooking classes
- 12 week weight management program
- Community run and/or walk
- Community access to school fitness center
- CDM monitor program
- Target fitness and exercise to elderly (stretching and movement)
- Step competitions (pedometers)



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## Rural ND Addressing Community Health (CHNA)

### • Healthcare workforce

#### ○ Increase use of social media



- Create community marketing group – hospital, economic development, chamber of commerce
- Support local students, financial support for nursing and medicine, and other health professions
- Create local R & R committee with representatives from community – school, bank, business, realtor, church, younger people
- Create a promotional video
- Work with CRH workforce specialist

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### Rural ND Addressing Community Health

#### • Mental health

- Hire mental health nursing specialist in the hospital
- Develop mental health screenings in schools
- Connect to “Behavioral Health Bridge” at UNDSMHS and UNDCONPD <https://ruralhealth.und.edu/projects/behavioral-health-bridge>
- Support groups
- Work with university MSW, counseling and psychology programs for student interns
- Tele-mental health



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### Rural ND Addressing Community Health (CHNA)

#### • Not Enough Jobs with Livable Wages

- Promote jobs in healthcare as they tend to provide high paying jobs. [Jobs.net website lists all jobs by North Dakota community](#)
- Create a liaison between hospital and area economic or jobs development corporation to promote economic impact of healthcare jobs. North Dakota CAHs have an average economic impact of \$6.4 million and contribute about 220 jobs to the community
- Start a local scholarship for health education with understanding recipient returns to the community for service for a specified period of time
- Focused community dialogue on job growth



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### Rural ND Addressing Community Health (CHNA)

- **Child Daycare Services**
  - Offer incentives in the form of subsidies for licensed home daycare providers and/or subsidies to employees
  - Promote [Child Care Aware of North Dakota](#) as resource to find local child care centers
  - Offer extended Clinic hours, in evenings and weekends, for working parents
  - Offer hospital supported day care for healthcare employees



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**Customized Assistance**

*Tailored Searches of Funding Sources for Your Project*

*Foundation Directory Search*

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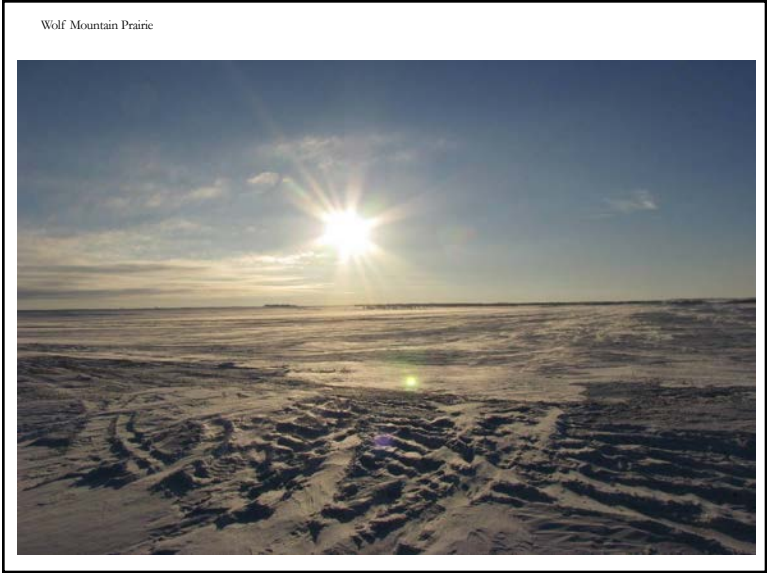


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## Contact us for more information!

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### Additional Slide

- **Not part of formal presentation but useful information**



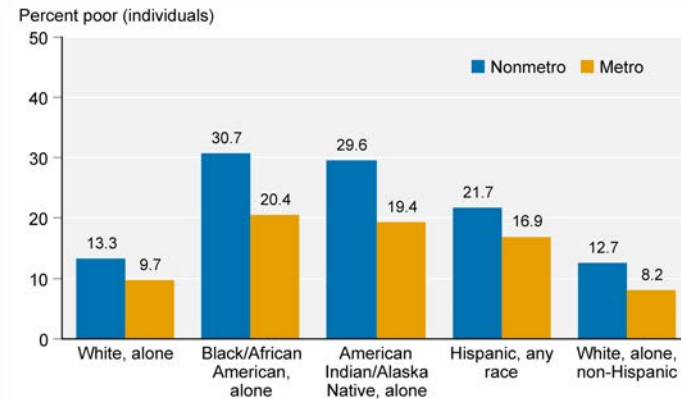
## Socio-Economic Impact on Health Access

- Poverty, income, education, and employment status contribute to:
  - Health insurance coverage- affordability, access
  - The ability to pay out-of-pocket costs such as co-pays and prescription drug costs
  - Time off from work to go to an appointment
  - A means of transportation to visit a healthcare provider
- The skills to effectively communicate with healthcare providers
- An expectation that they will receive quality care, whatever their race/ethnicity or income level.

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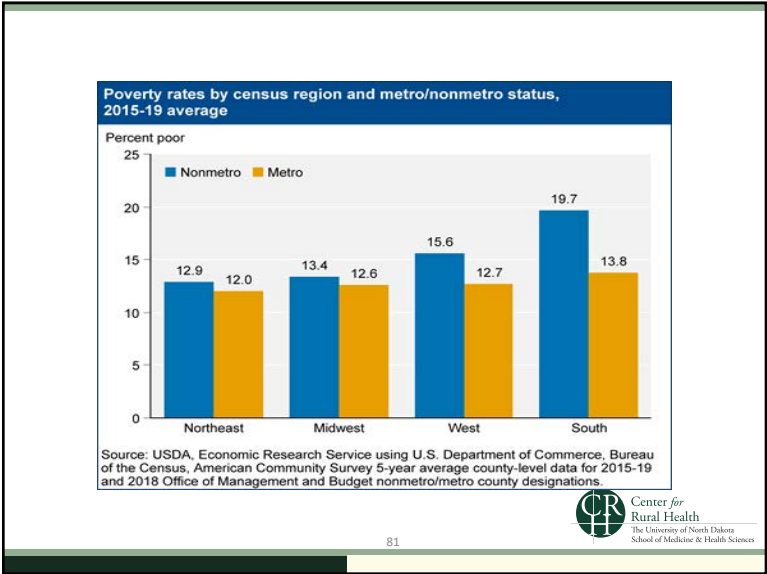
Poverty rates by selected race/ethnicity and metro/nonmetro residence, 2019



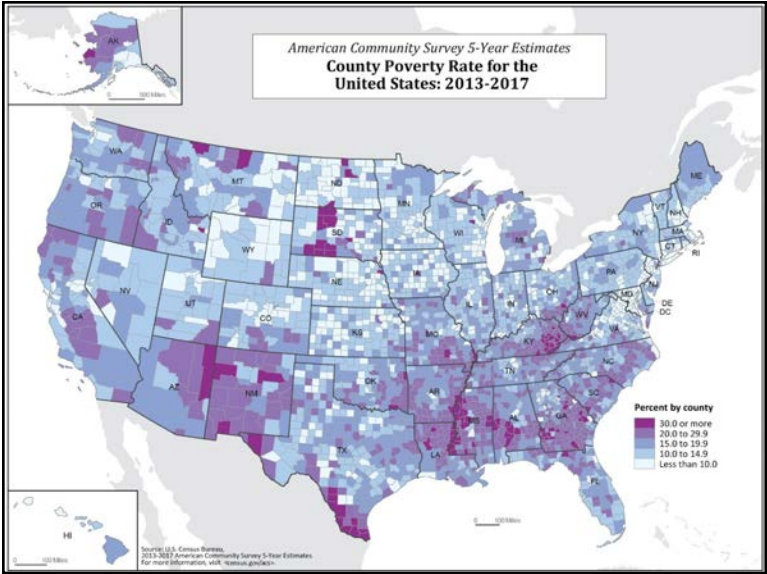
Note: "Alone" indicates a single answer to the race question; Hispanics may be any race. "White, alone, non-Hispanic" are individuals who responded "No, not Spanish/Hispanic/Latino" and who reported "White" as their only entry in the race question. Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, annual American Community Survey, 2019.

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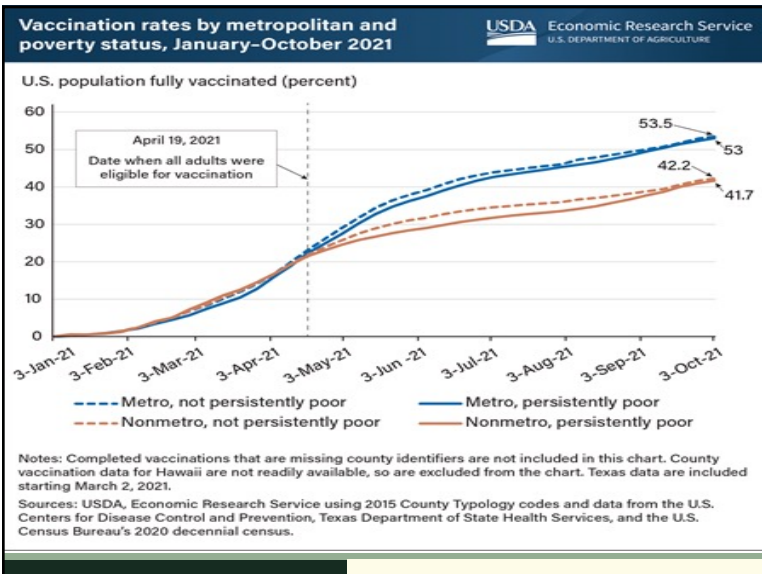




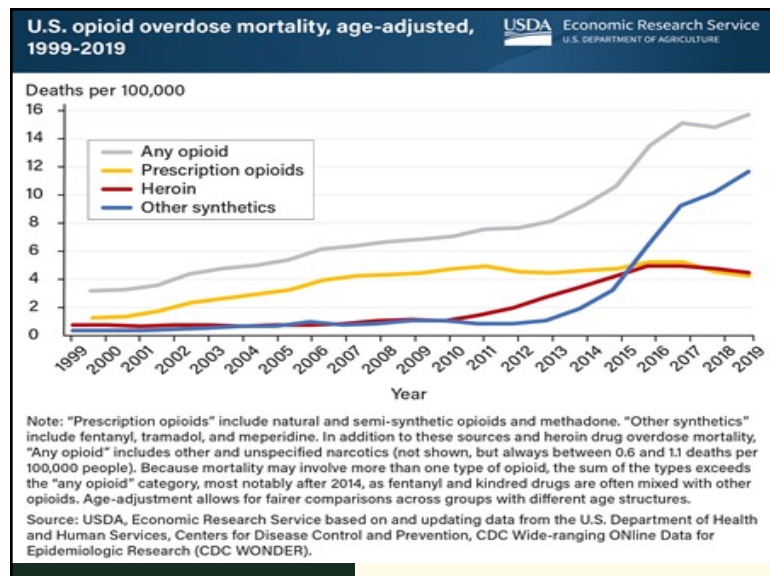
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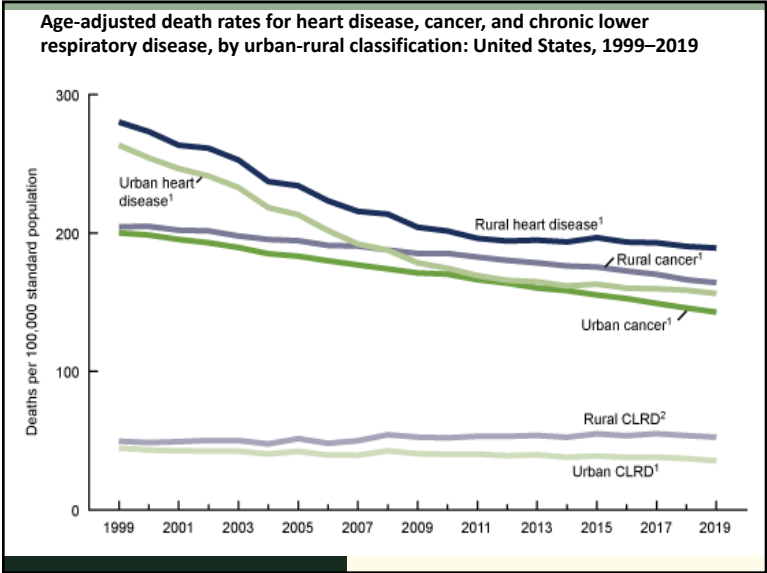
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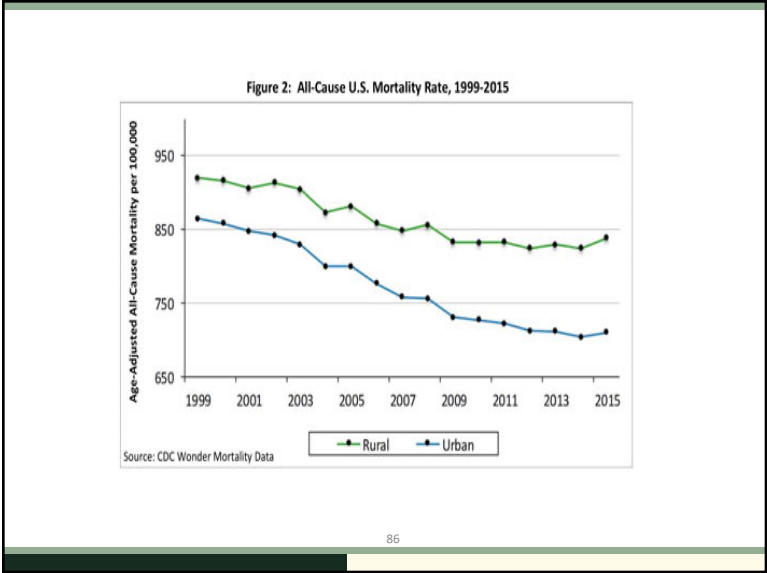
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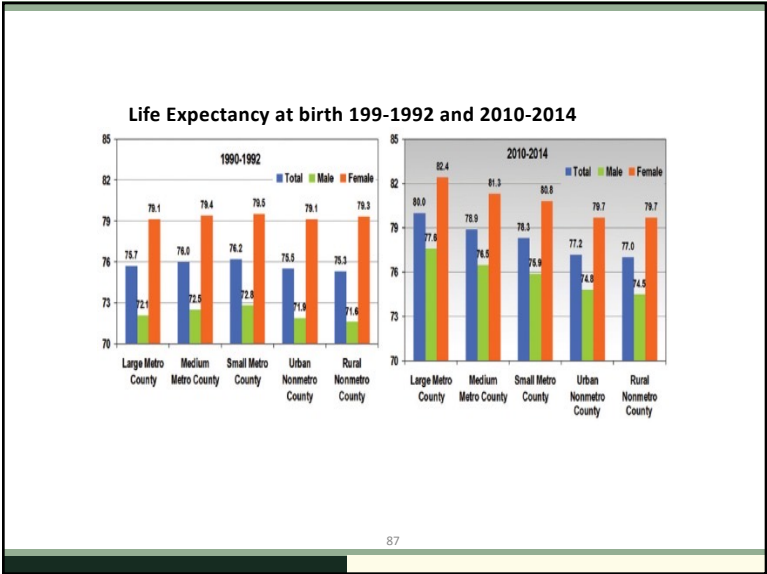
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## Community Benefit Examples that Show the Connection to Population Health

**St. Francis Memorial Hospital** (San Francisco) – gang ridden Tenderloin district – **“Corner Captains”** mothers of school children patrol area watching out for the children – part of **Safe Passage initiative of Tenderloin Health Improvement Partnership** funded by hospital – targeting social determinants of health such as violence, poverty, hunger, education, nutrition, and housing

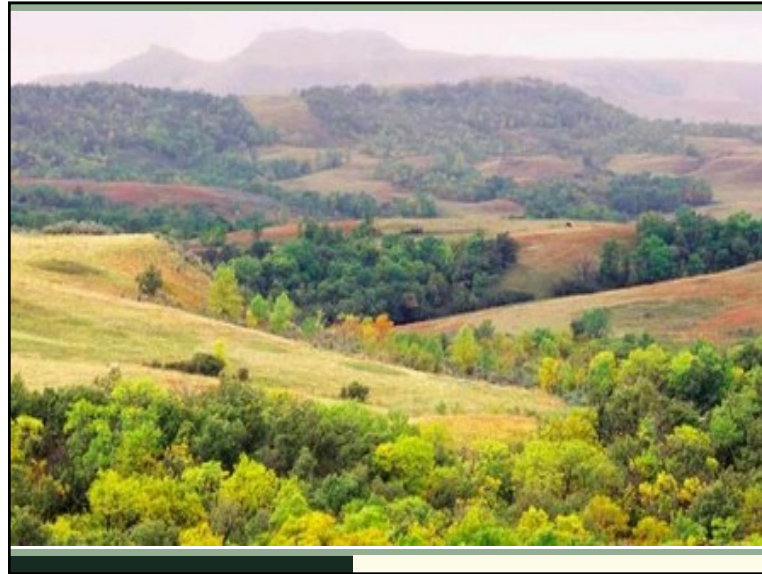
**Gang members** leave the moms and kids alone

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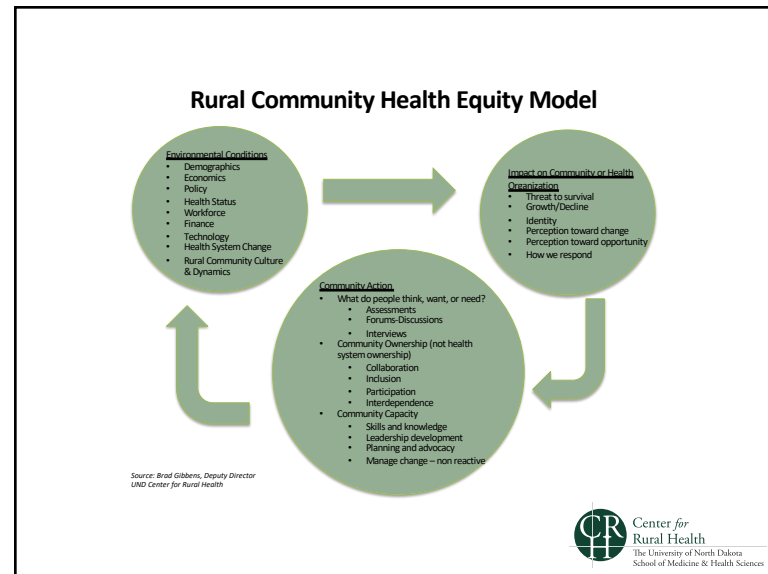
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### Risk Factors: Obesity

Obesity among persons 18 years of age and older by type of rural

