

RURAL VS URBAN:



https://d100i36hiycpc5.cloudfront.net/blog/2018_09_featured_image/rural_vs_urban_budgeting_vx66yGw.jpg

IMPACT OF HEALTHCARE
ACCESS ON HEALTH
OUTCOMES OF CHRONIC
DISEASE

By: Aura Arroyo & Daria Peck
Department of Nursing, Carroll College

CHRONIC DISEASE

Impacts physical/mental health, lasting over 1 year, leads to functional restrictions, requires continuous treatment and monitoring.

RURAL

Open landscapes with fewer than 2,500 residents in a population density less than 500 people per square mile .

URBAN

High population density of 50,000 or more people and consist of built-up regions.

PURPOSE OF THE STUDY

Recognize disparities in access to healthcare, identify incidence of chronic disease amongst adults in each population, and evaluate how healthcare access influences the health outcomes of the chronic diseases.

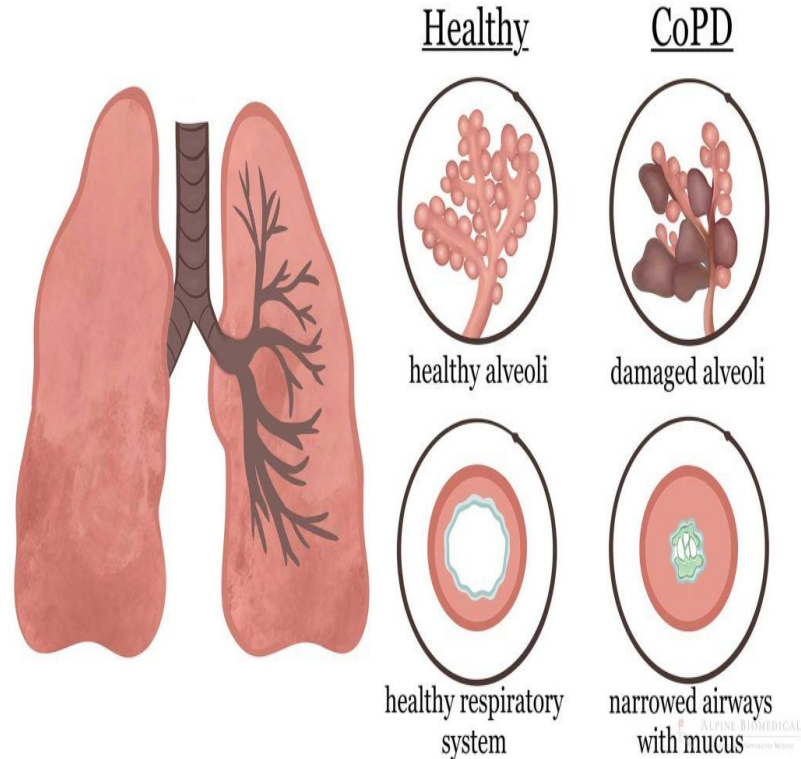
Importance of the Research

Examining the role of geographic residence in chronic disease management is vital to addressing health disparities

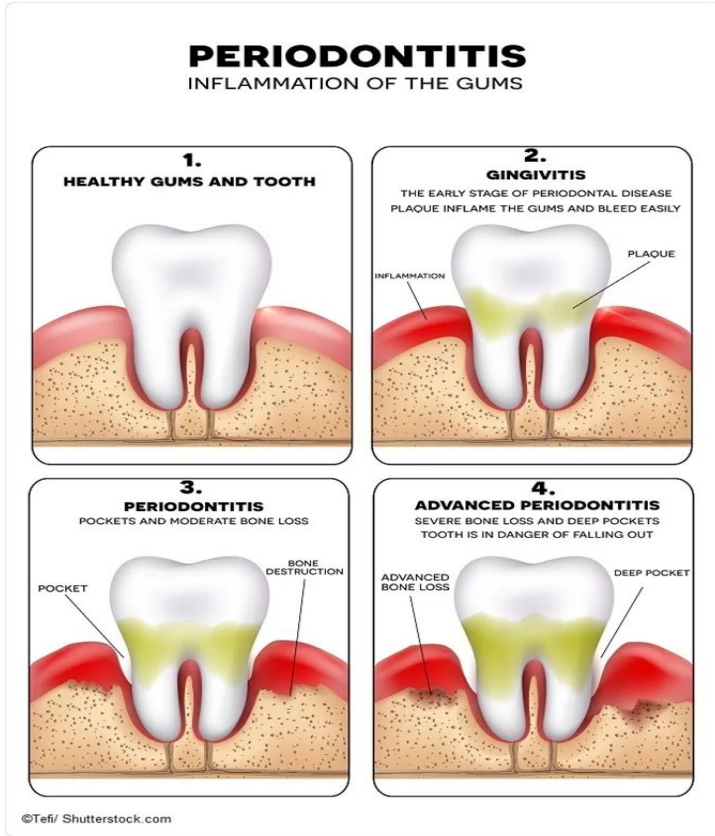
- Compared to urban areas, rural regions have a 20% higher death rate and greater incidence of multiple chronic conditions (NCHS, Ward et al., 2020).
- 34.8% of adults in rural areas reported multiple chronic conditions compared with 26.1% in urban populations (Ward et al., 2020)

Health Care Disparities Across the Urban-Rural Divide: A National Study of Individuals with COPD (Gaffney et al., 2020)

- Cohort Study in the U.S.
- Utilized the National Health Center for Health Statistics Urban-Rural Classification Scheme
- Population: rural and urban adults with a prior diagnosis of COPD
 - 12,681 rural
 - 21,758 urban
- Outcomes Examined:
 - Subjective Health Status
 - Difficulty walking/climbing stairs
 - Incidence of the 3 major respiratory symptoms
 - Cough
 - Phlegm
 - Dyspnea
- Findings: Rural communities have significantly less access to healthcare services which results in a decline in the health related outcomes of chronic disease



<https://alpine-biomedical.ch/wp-content/uploads/copd-en-1080x608.jpg>



Rural-Urban Disparities in the Incidence and Treatment Intensity of Periodontal Disease Among Patients with Diabetes (Chen et al., 2023)

- Cohort Study in Taiwan
 - 144,483 participants
- Utilized the 2010 DM Health Database
- Population: Adults equal to or older than 20 years old with a diagnosis of diabetes mellitus (DM)
- Examined the circular relationship between DM and periodontal disease (PD)
 - Poorly maintained DM leads to a subsequent diagnosis of PD
- Findings: Rural adults with DM had less access to healthcare which resulted in more undiagnosed PD and worse health-related outcomes of DM.

Presentation, Management, and Outcomes Across the Rural-Urban Continuum for Hepatocellular Carcinoma

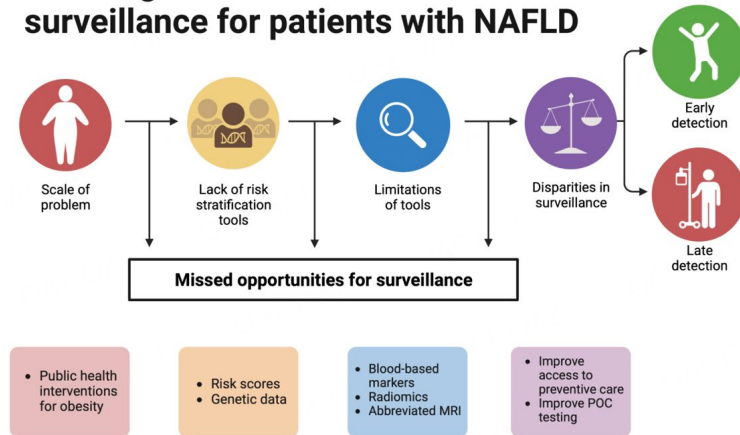
- The study used data from the SEER cancer database.
- It included 83,368 adults diagnosed with hepatocellular carcinoma (HCC), a type of liver cancer.
- The study period spanned from 2000 to 2016.
- Researchers compared urban and rural populations.
- Key areas of comparison included:
 - Stage at diagnosis
 - Access to treatment
 - Survival outcomes
- Rural patients were more likely to be diagnosed at a late stage.
- Reduced access to treatment was observed in rural populations.
- Survival outcomes were significantly worse in rural areas.

(Zhou et al., 2020)



[How Do I Get There? – Rural Health Professions Action Plan](#)

Challenges and barriers in HCC surveillance for patients with NAFLD



2394-5079.2022.92

Article #4

Urban–rural health disparity among patients with chronic kidney disease: a cross-sectional community-based study from 2012 to 2019

- Observational cohort study conducted in Taiwan
- Included 7,786 community-based patient records
- Compared chronic kidney disease (CKD) rates in rural vs. urban populations
- CKD Prevalence: Rural =29.2%, Urban =10.8%
- Rural Residents had:
 - Higher comorbidities
 - Lower CKD awareness (rural:9%, urban:12.6%)
 - Reduced access to early diagnosis and care

(Wu et al., 2024)

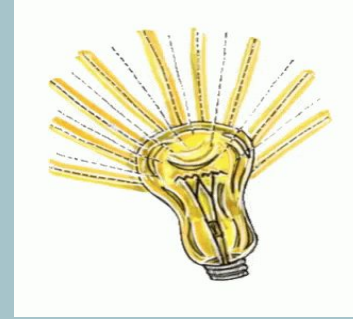


<https://californiakidneyspecialists.com/summertime-renal-health-how-to-keep-your-kidneys-healthy-in-the-heat/>



<https://www.rasmussen.edu/degrees/nursing/blog/what-does-a-dialysis-nurse-do/>

Synthesis of Evidence



HOW WAS THE PICOT QUESTION ANSWERED?

All four articles support the claim that rural populations have inadequate access to health care compared to urban populations.

This disparity leads to more detrimental outcomes of chronic disease amongst rural adults.

WHAT WAS DETERMINED?

Rural populations are subjected to poorer outcomes due to the systemic lack of providers working in rural communities, financial barriers, and transportation challenges.

Healthcare interventions are needed to address the disparities, by increasing access to specialty care in rural areas.

Limitations to the Research

<p>Measurement Limitations</p>	<p>Classification schemes (such as simple urban–rural cutoffs) may not capture all nuances of healthcare access in various regions.</p> <p>Some datasets cover only subsets of the population, limiting generalizability.</p>	<p>Potential Confounders</p>	<p>Short duration of study follow-up in some cases may miss long-term outcomes or changes in disease progression.</p>
<p>Some studies relied on self-reported data, which can introduce bias or misclassification.</p> <p>Lack of detailed quantitative measures that can affect the accuracy of disease severity classification.</p>	<p>Data Source and Classification Constraints</p>	<p>Socioeconomic variables, comorbidities, and the possibility of rural residents seeking care in urban centers add complexity to drawing definitive conclusions.</p>	<p>Duration and Scope</p>

Application to Nursing Practice



NPs in Rural Healthcare:

Address key disparities with expertise & training.

18% of U.S. NPs:

About 26,600 of 155,000 NPs serve in rural areas.

Diverse Care in Rural Areas:

NPs cater to underserved communities, filling critical gaps.

Impact:

NPs boost healthcare access in areas left underserved by other providers.

[nurse practitioner preceptor NPs in Rural Areas: Essential Roles and...](#)

- Nurses are frontline advocates
- Bridging gaps in access
- Advocacy and policy influence
- Interventions in chronic conditions
- Interdisciplinary collaboration



[Binghamton University rural healthcare gaps...](#)

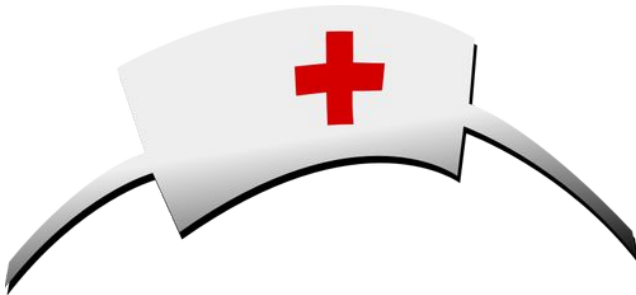
Thank you!

We appreciate your time,

Aura & Daria



This work is not original. This is a systematic review of published research conducted by professionals. Guidance was provided by Melissa Lewis, professor of ACNU 307: Evidence-Based Practice Research.



Department of Nursing, Carroll College

References

