RURAL HEALTH CARE ACCESS: RESEARCH REPORT[1]

Appalachian Rural Health Institute

January 2019

Introduction and Background

Appalachian Rural Health Institute, Ohio University

The Appalachian Rural Health Institute (ARHI) is within the College of Health Sciences and Professions (CHSP) at Ohio University. As a consortium of researchers with specific experience and expertise in quantitative and qualitative research methods, ARHI is committed to improving the health of people who reside in Appalachia. Our approach is to use community-based studies and projects that specifically focus on Appalachian health needs, issues, and disparities. We understand the challenges faced in providing care to improve public health in Appalachia.

Purpose and Objectives of this Study

The overall purpose of this project is to assist local health departments in Ohio with public health accreditation documentation related to access to care. Specifically, the objectives are:

- To compile rural health priorities as identified in rural and Appalachian Counties in Ohio; and
- To focus on access to care (Domain 7) in the public health accreditation guidelines, by
    - Collecting health care access data from community members; and
    - Assembling health care access data from secondary sources.

Organization of the Report

This report is divided into three major sections. Section I provides background about public health accreditation activities in Ohio, specifically focusing on rural counties in the state. In this section, we summarize findings from multiple sources that identify the rural health priorities in the state. This section also offers an orientation to the meaning of access to health care.

Section II summarizes data from both primary and secondary sources to paint a picture of current access to care in rural Ohio. Primary data sources include an online survey administered by ARHI, telephone interviews with more than 20 health department officials, and several meetings with local health departments. This data provides perceptions and opinions about access to care and is crucial to identifying strategies to address potential gaps.

Secondary data comes from a variety of sources including governmental, such as the Census; nonprofit, such as the Robert Wood Johnson Foundation; and educational, such as the Dartmouth Atlas of Health Care. While this data is evidence-based, in many instances it is outdated, so there are limitations in using it. Nevertheless, in comparing perceptions to evidence, we can document some of the gaps in access to care.

[1] This project is funded by a grant from the State Office of Rural Health at Ohio Department of Health.

Section III focuses on potential strategies for improving access to care. These strategies are grounded in work by the Robert Wood Johnson Foundation (RWJF), which has analyzed the effectiveness of each approach. Part of the online survey measured support for specific strategies and this information is included in section II.

More Information

For more information about this work or how ARHI can further assist local health departments, contact:

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SECTION I: BACKGROUND AND ACCREDITATION

All health departments in Ohio are required to become accredited by the Public Health Accreditation Board (PHAB) by 2020. There are 12 domains to accreditation. Ten of these are the *Essential Public Health Services* that were created in 1994 by a collaboration between multiple public health agencies and organizations. Domains 11 and 12 are related to health department administration and governance.

Domain 1 of the PHAB standards and measures requires health departments to complete a Community Health Assessment (CHA) to identify important issues that will be the focus of Community Health Improvement Plans (CHIP). We reviewed CHIPs and Community Health Needs Assessments (CHNAs) from rural counties in Ohio and noted 5 similar priorities in these documents. The table below compares the ranking of these 5 issues from the health department perspective (CHIP), the hospital perspective (CHNA) and almost 100 people who attended the luncheon at the State Rural Health Meeting on August 28, 2018.

Comparison of Ranking of Rural Health Priorities		
CHIPs	**CHNAs**	**Ohio Rural Health Meeting**
1. Substance abuse	1. Obesity	1. Mental/behavioral health
2. Mental/behavioral health	2. Mental/behavioral health	2. Access to care
3. Obesity	3. Substance abuse	3. Obesity
4. Chronic disease	4. Access to care	4. Substance abuse
5. Access to care	5. Chronic disease	5. Chronic disease

While Access to Care is one of the top priorities in rural areas in Ohio, the 2017-2019 State Health Improvement Plan (SHIP) for Ohio focuses on three major issues: maternal and child health, chronic diseases, and mental health and addiction. Access to health care is a "cross-cutting factor" that affects all three priorities. The SHIP defines access as:

> *…having timely use of comprehensive, integrated, and appropriate health services to achieve the best health outcomes.*

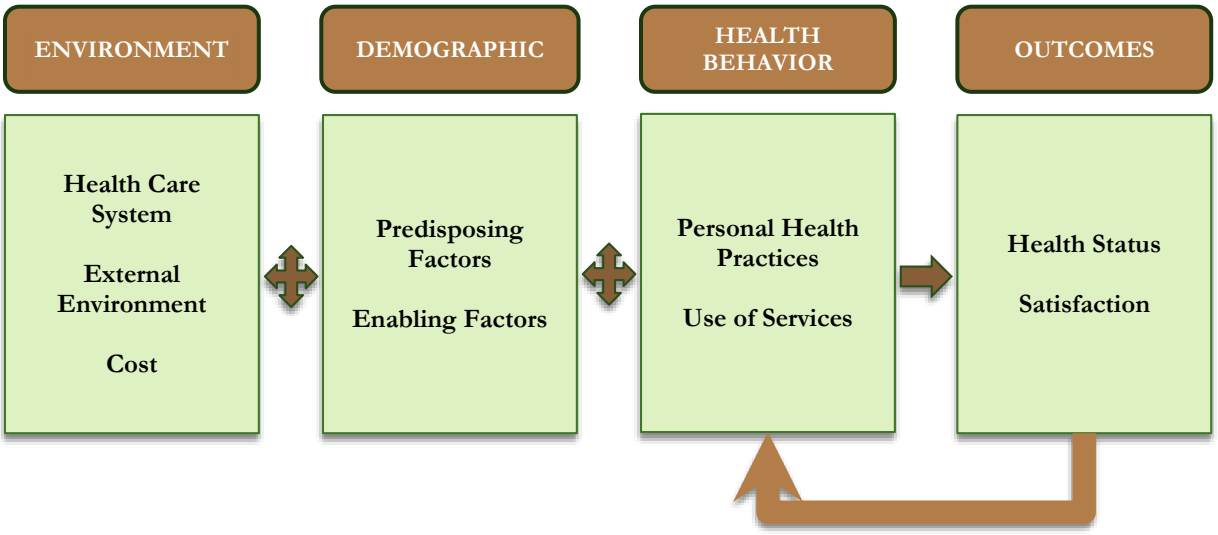
Domain 7 of the PHAB guidelines focuses on access to health care services. The tables below summarize the two standards in domain 7 and the documentation required for each.

Standard 7.1 Assess Health Care Service Capacity and Access to Health Care Services	
Measure	Documentation
7.1.1. Process to assess the availability of health care services	1. A collaborative process to asses availability of health care services. 2. The sharing of comprehensive data for the purposes of assessing the availability of health care services and for planning. 3. Consideration of emerging issues in public health, the health care system, and health care reimbursement.
7.1.2. Identification of populations who experience barriers to health care services identified	1. A process for the identification of un-served or under-served populations. 2. A report that identifies populations who are un-served or under-served.
7.1.3. Identification of gaps in access to health care services and barriers to the receipt of health care services identified	1. The process or set of processes used for the identification of service gaps and barriers to access health care services. 2. Reporting the analysis of data from across the partnership (see 7.1.1) that identify the gaps in access to health care services and the causes of the gaps in access or barriers to care. The report must include: a. Assessment of capacity and distribution of health care providers; b. Availability of health care services; c. Identification of causes of gaps in services and barriers to receipt of care; and d. Results of data gathered periodically concerning access.

Standard 7.2: Identify and Implement Strategies to Improve Access to Health Care Services	
Measure	Documentation
7.2.1. Process to develop strategies to improve access to health care services	1. A coalition/network/council working collaboratively to reduce barriers to health care access or gaps in access. 2. Strategies developed by the coalition/network/council working through a collaborative process to improve access to health care services.
7.2.2. Implemented strategies to increase access to health care services	1. Collaborative implementation of mechanisms or strategies to assist the population in obtaining health care services.
7.2.3. Implemented culturally competent initiatives to increase access to health care services for those who may experience barriers to care due to cultural, language, or literacy differences	1. Initiatives to ensure that access and barriers are addressed in a culturally competent manner.

The intent of this report is to assist local health departments, especially those in rural areas of Ohio, with complying with the requirements for Domain 7. Specifically, this report provides information for Measures: 7.1.2 and 7.1.3 In addition, some of the information in this report can help health departments with documentation related to 7.2.2 and 7.2.3.

Addressing gaps and inequities in access to health care can lead to minimizing health disparities, promoting health equity, and improving overall health. However, access to health care is multidimensional and comprised of numerous factors that include the external environment, demographic characteristics, health behaviors, and outcomes. The model of access to care that ARHI uses is below.



PROJECT ACTIVITIES

Using the model noted above, this report summarizes key factors and indicators related to access to health care in Ohio. Principally, we focus on comparing rural counties in Ohio with those that are not considered rural. For the purpose of this work, we use the Federal Office of Rural Health Policy definition that includes all non-metropolitan counties as part of rural. In addition, some counties are categorized as "partially rural" based on circumstances in specific census tracts.

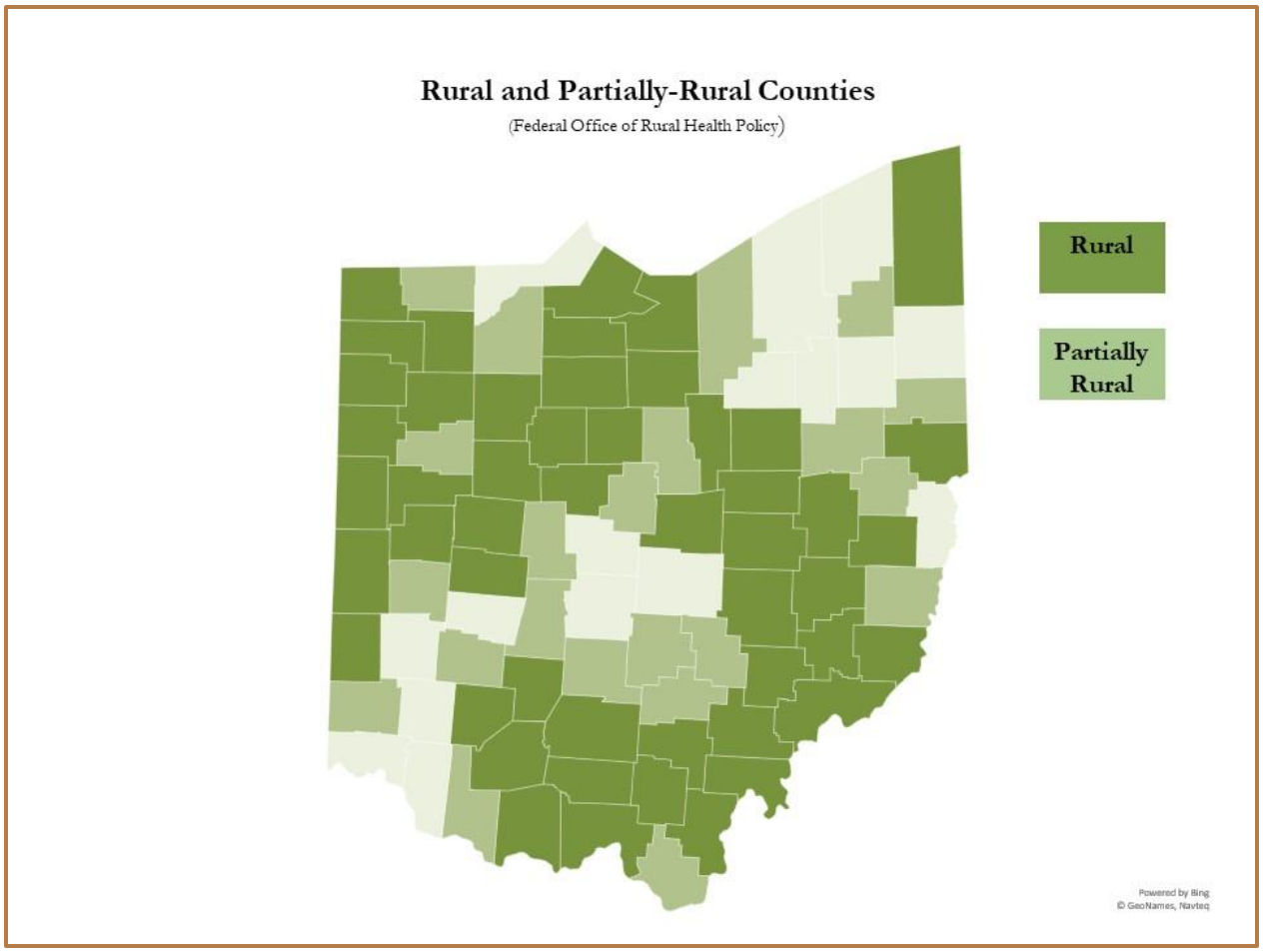
Counties in Ohio: 88

Rural Counties: 50 (57%)

Partially Rural Counties: 22 (25%)

Appalachian Counties: 32 (40%)

This creates a limitation in this work because the definition is based, in part, on the most recent (2017) population estimates in each county. County level data works for most health departments, but there are still several city health departments operational in the state. In some cases, we have also presented information for the 32 Appalachian counties in the state.



In response to needs identified by local health departments, we focused on helping with documentation for Domain 7 of the public health accreditation guidelines. Specifically, this work provides some data for health departments to use in documenting gaps in access to care and a process to identify and implement strategies to improve access to care. From April through September 2018, ARHI conducted a statewide survey to gather public perception of several components of health care access. We also compiled relevant secondary data from multiple sources. To identify strategies, we created and implemented a rubric to assist health departments with identifying ways to address gaps in access to care.

In order to keep the size of this report manageable, we focus on key indicators to describe the access to care situation in the state. Individual health departments can request personalized fact sheets and further assistance.

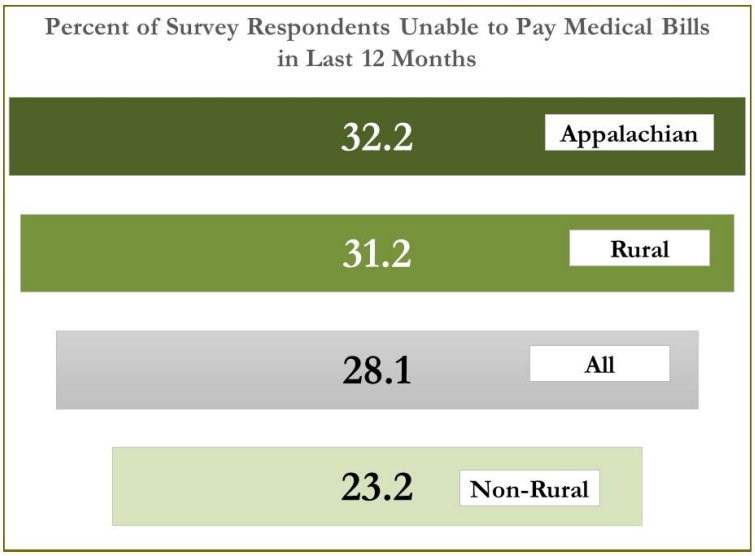
SECTION II: ASSESSING HEALTH CARE SERVICE CAPACITY AND ACCESS TO HEALTH CARE SERVICES

ENVIRONMENTAL FACTORS

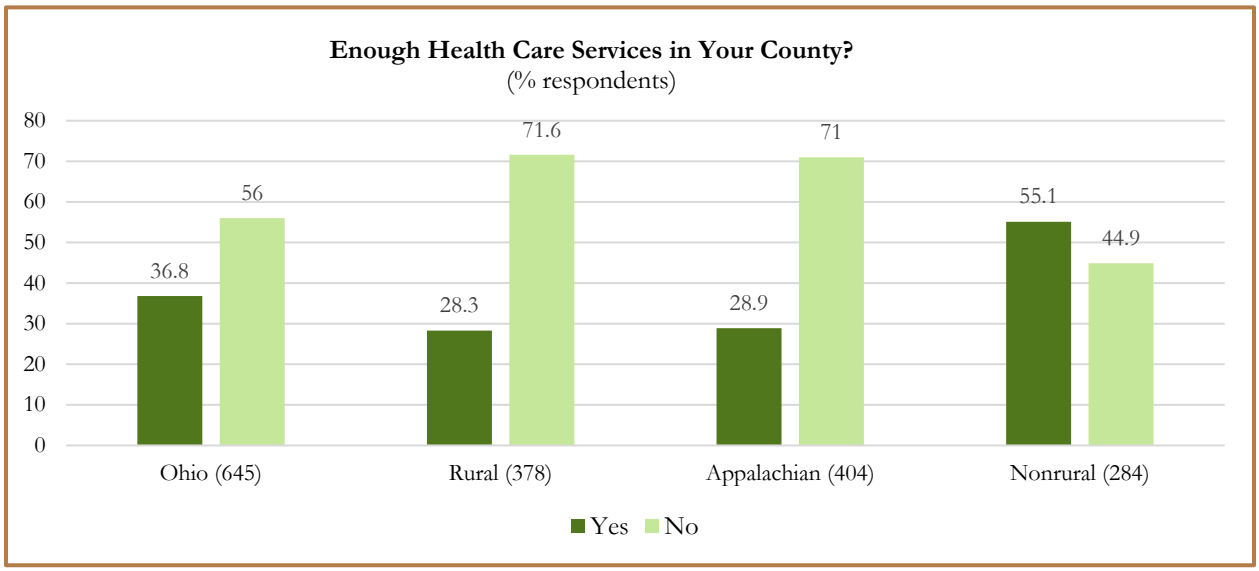
Environmental factors that affect access to health care include location and availability of providers, the cost of services, and perception of available resources. In addition, there are external environmental factors that can influence access to health care.

Survey Results

- Respondents from rural and Appalachian counties in Ohio are **less likely** to believe there are adequate services in their counties. The differences between rural/Appalachian and non-rural are statistically significant.
- Those who live in rural areas travel further distances and for longer times for primary care services than those who do not live in rural areas.
- **More than 20%** of the rural and Appalachian respondents travel 20 miles and 50 minutes to see a specialist; **less than 5%** of the non-rural respondents travel that far.
- Respondents who live in Appalachian and rural counties are **more likely** to say they are unable to afford their medical bills.
- Almost 8% of the respondents from rural counties said they were **unable to pay** household bills due to health care expenses, compared to only about 3% of non-rural respondents.



- Respondents in rural counties were **more likely** to say they took on more debt to pay medical bills.
- Almost 25% of the rural respondents **drive more than 50 miles** for specialty care, compared to less than 5% of non-rural respondents.



Rural Health Report Card

Rural Health Quarterly (RHQ) is a publication of the F. Marie Hall Institute for Rural and Community Health at the Texas Tech University Health Sciences Center. In 2017, RHQ released a Rural Health Report card that compares multiple indicators among states. Ohio did not rank well for access to care indicators.

2017 Rural Health Report Card
Ohio's Grades and Rankings for Access to Care

	Grade	Ranking
Primary Care	D-	36
Mental Care	D+	30
Dental Care	D	34

Source: US Rural Health Report Card 2017, http://ruralhealthquarterly.com/home/2017/12/15/u-s-rural-health-report-card-2017/

Medicare Reimbursement Rates

- On average, the price-adjusted Medicare reimbursement rate is slightly lower in rural Ohio counties ($10,007) than non-rural counties ($10,021).
- The highest Medicare reimbursement rates are in Appalachian counties ($10,227).

Health Professional Shortage Areas

There are several indicators to use in identifying gaps in access to care. One of these is known as Health Professional Shortage Areas (HPSA). This designation is based on shortages of primary medical care, dental or mental health providers and may be related to geography (county or service area), population (e.g. low income or Medicaid eligible), or facilities (e.g. federally qualified health center or other state or federal prisons). About two-thirds of all rural counties in Ohio are considered mental health shortage areas and more than one-third are designated primary care shortage areas.

Rural and *Partially Rural* Counties Identified as Geographic Health Professional Shortage Areas				
Dental Shortage Area			**Primary Care Shortage Areas** **Rural: 36% (18/50)** ***Partially Rural: 18% (4/22)***	
Vinton				
Mental Health Shortage Areas **Rural: 66% (33/50)** ***Partially Rural: 36% (8/22)***				
Adams	Holmes	Paulding	Ashland	Monroe
Ashtabula	Huron	*Perry*	Ashtabula	Morgan
Brown	Jackson	*Pickaway*	Auglaize	*Morrow*
Carroll	Knox	Pike	*Carroll*	Paulding
Champaign	*Lawrence*	Preble	Champaign	*Perry*
Coshocton	Logan	Putnam	Guernsey	Pickaway
Crawford	Meigs	Ross	Hancock	Preble
Darke	Mercer	Scioto	Hardin	Seneca
Erie	*Miami*	Shelby	Harrison	Tuscarawas
Fairfield	Morgan	Tuscarawas	*Hocking*	Van Wert
Fayette	*Morrow*	*Union*	Holmes	Washington
Gallia	Muskingum	Van Wert	Huron	Wood
Guernsey	Noble	Wayne		
Highland	Ottawa			
Source: HRSA, https://data.hrsa.gov/tools/shortage-area/hpsa-find				

KEY MESSAGES: ENVIRONMENTAL FACTORS

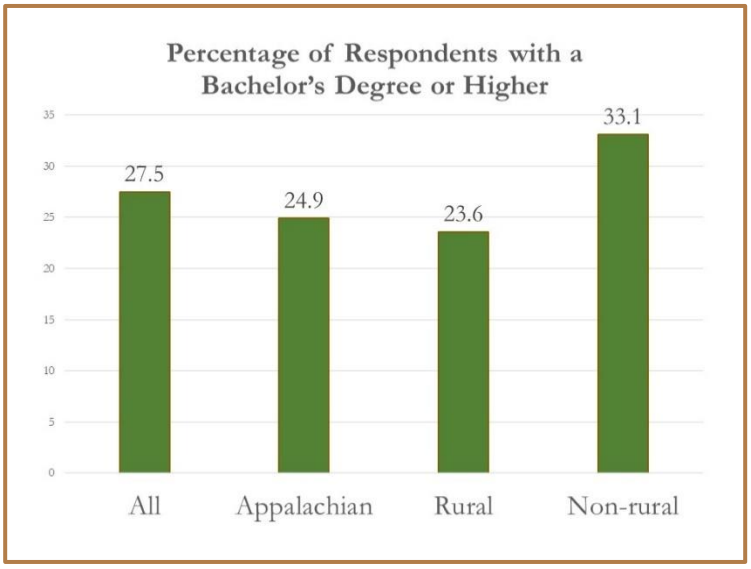
- **Environmental factors affect access to care in rural and Appalachian counties to a greater extent than they do in non-rural counties. Most of these effects make it more difficult for rural populations to access health care.**
- **People who live in rural areas identify many environmental factors that are verified by secondary data; for example, perception of access to mental health care providers and specialty care.**
- **The costs of health care in rural counties may be comparable to non-rural counties in general but, by one indicator, costs in Appalachian counties appear to be higher than non-Appalachian counties.**

DEMOGRAPHIC FACTORS

Two categories of demographics are related to access to health care. First, there are characteristics that are inherent and uncontrollable such as age, race, and disability status. These are "predisposing" factors. The second demographic category includes income, insurance, employment, and education. These are "enabling" characteristics because they can be managed with policies and programs.

Survey Results

- The average age of respondents regardless of county location is about **48 years old**.
- The percentage over 65 and older is **slightly higher** (1%) in the non-rural respondent group rather than the rural group.
- Respondents from non-rural counties are **more likely** to say they have a college education that those in Appalachian and rural counties.



Census Data

Compared to other counties, Appalachian and rural counties in Ohio:

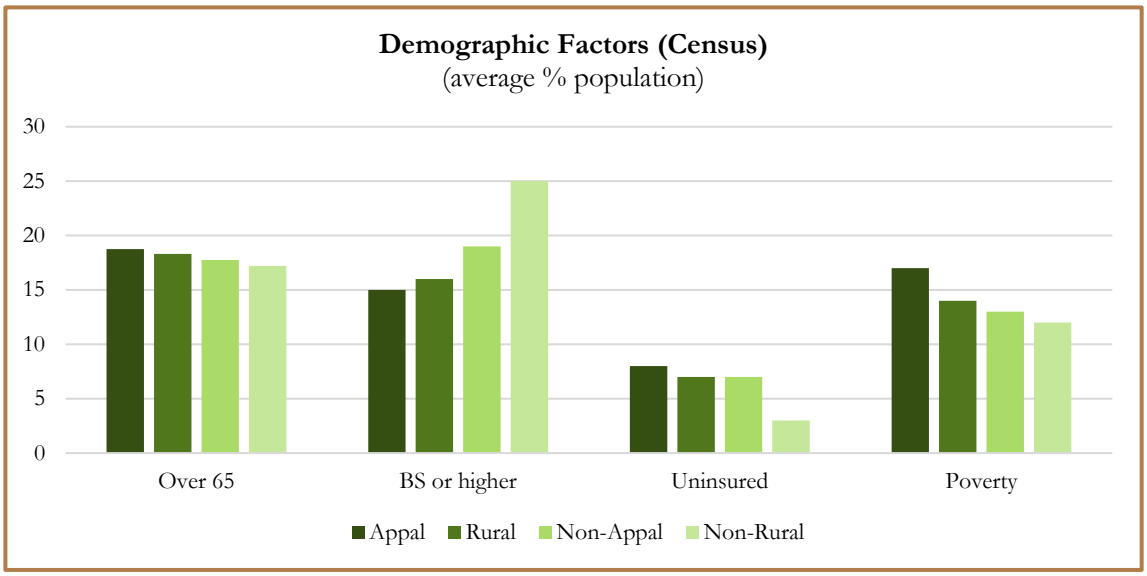
- Have **higher percentage** of population over the age of 65.
- Have **lower** median housing values.
- People who live in Appalachian and rural counties are **less likely** to have a computer and internet in their homes than those in other counties.
- The percentage of people with a college education is **lower** in Appalachian and rural counties than other counties.

How Rural Counties in Ohio Compare to Non-Rural Counties for Selected Demographic Indicators (Based on Mean Values)

	Lower	Higher
College-educated	**-9%**	
Disability under the age of 65		**+2%**
Median household income	**-$7832**	
Median housing value	**-$27145**	
Percent population over 65		**+1%**
Population density per square mile	**-429**	
Poverty rate		**+2%**
Under 65 without insurance		**+1%**

Source: U.S. Census, QuickFacts, 2017 estimates and 2013-2017 averages

- More than 350,000, or about 15% of Social Security beneficiaries in Ohio are disabled workers. Aside from two areas near Cleveland, the **highest disability rates (21%**) in Ohio are in the **Appalachian areas** around Portsmouth and Ironton.



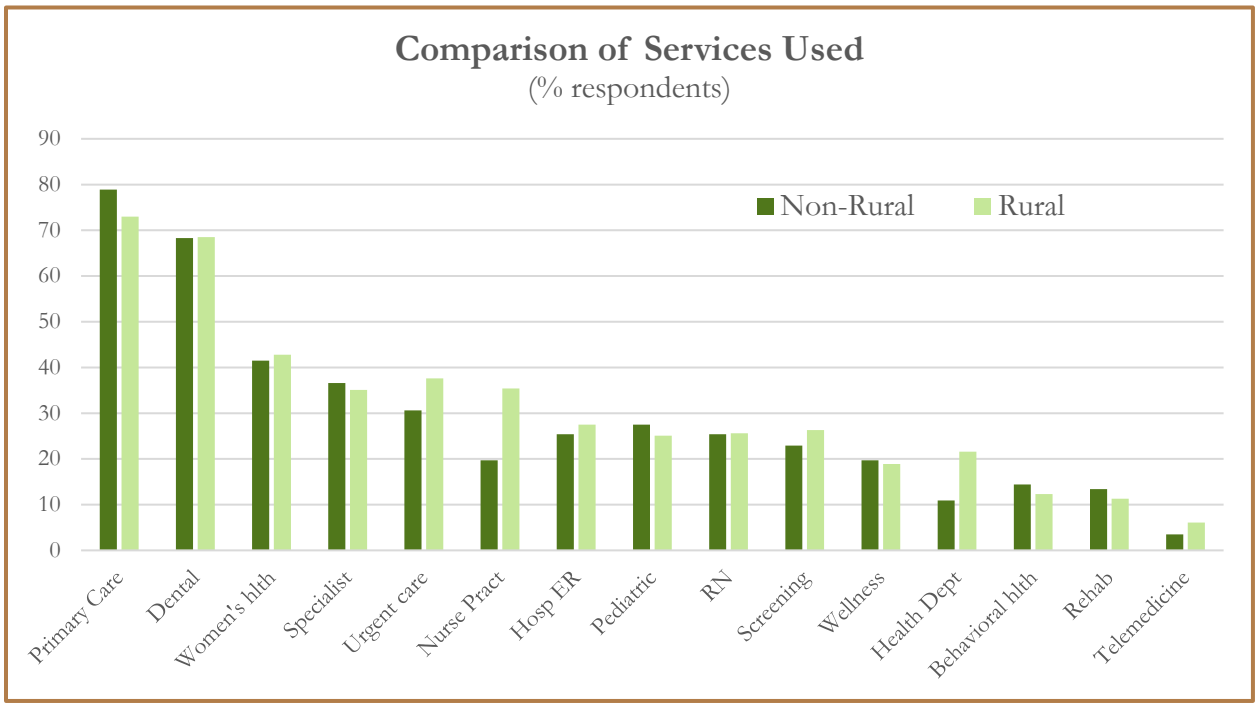
KEY MESSAGES: DEMOGRAPHIC FACTORS

- **Lower housing values indicate that property taxes used to fund important social, educational, and infrastructure services are limited in rural counties.**
- **The percentage of survey respondents over the age of 65 and those with a college education are similar among survey respondents and census data. However, there are limitations in considering the survey to be a representative sample of Ohioans.**
- **Education, income, and age differences between rural and non-rural areas suggest demographic factors can inhibit access to health care.**
- **Poverty, education, insurance, and employment could create greater challenges to accessing care in rural and Appalachian counties than other counties.**

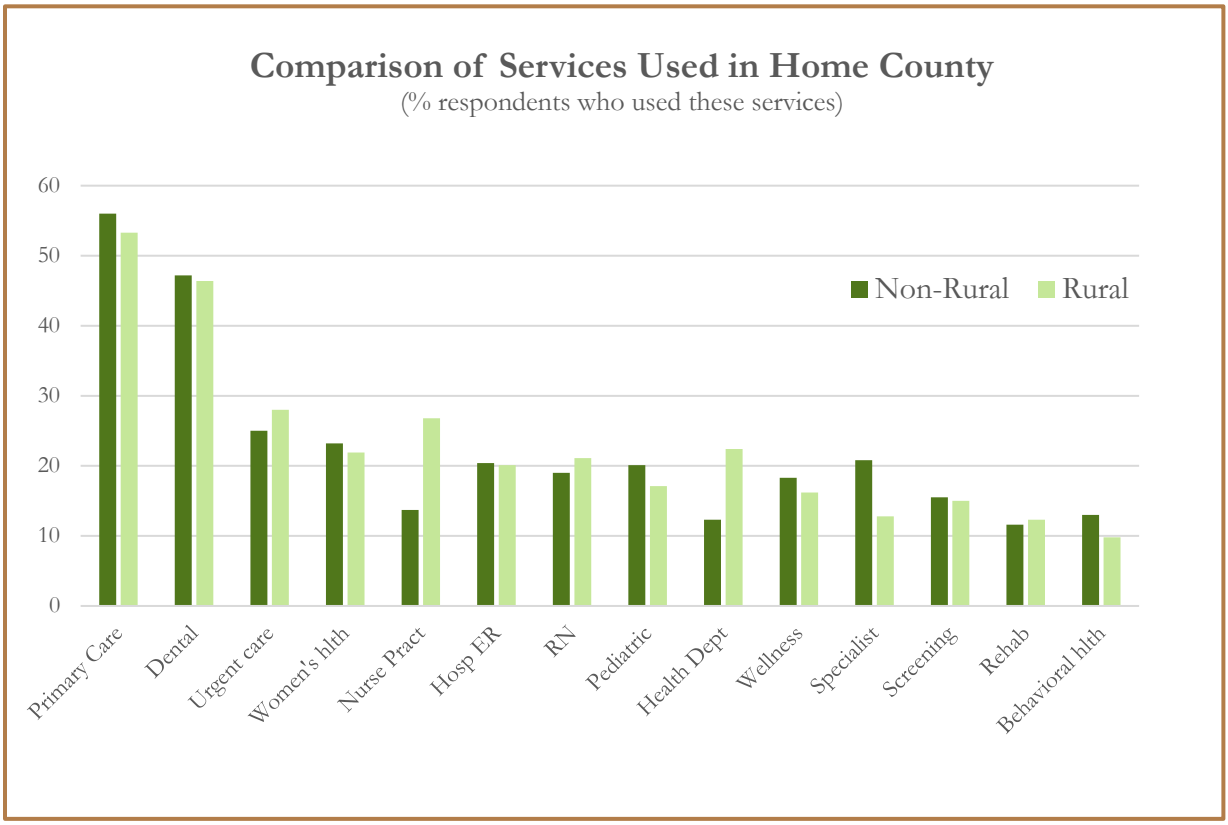
HEALTH BEHAVIORS

Access to health care is influenced by specific health behaviors. For example, personal health practices such as smoking and substance abuse contribute to the need for care. Access is also defined by how people use available services. In some cases, services are available, but people do not use them. In other cases, services are not available, but people express a need to access them.

Survey Results



- **Urgent care** is the main place to access care for **25%** of the rural respondents and **15%** of the non-rural respondents. Rural respondents are also **more likely** to have used urgent care in the last 12 months.
- **Nurse practitioners** are the primary source of care for **12%** of the rural respondents and **4%** of the non-rural respondents.
- Rural respondents are **more likely** to use urgent care and nurse practitioners in their home counties, but less likely than non-rural respondents to use primary care, dental services, women's health services, pediatrics, and specialty care in their home counties.
- Respondents in rural and Appalachian counties are **slightly more likely** to use emergency rooms for conditions that could be treated by regular doctors.



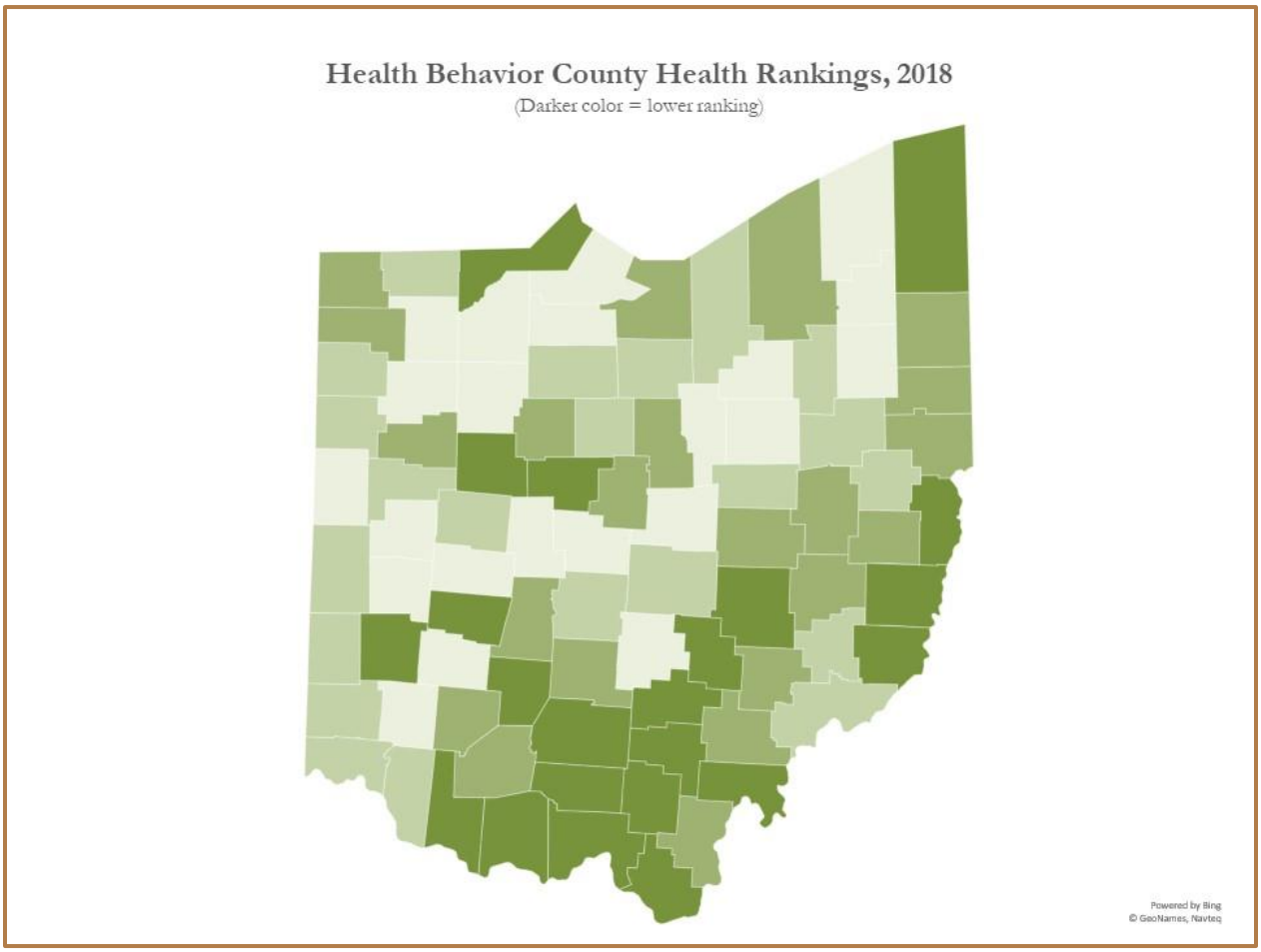
County Health Rankings

The Robert Wood Johnson Foundation generates a ranking of health behaviors that is a composite of:

- Smoking rates
- Obesity rates
- Food environment index
- Physical inactivity
- Access to exercise opportunities
- Excessive drinking
- Alcohol-impaired driving deaths
- Sexually transmitted infections
- Teen births

Using this composite approach, Appalachian counties in Ohio rank the lowest for healthy behaviors.

- Nine of the 10 counties that **rank the lowest** are in Appalachia: Meigs, Scioto, Lawrence, Gallia, Vinton, Jackson, Pike, Jefferson, and Adams.



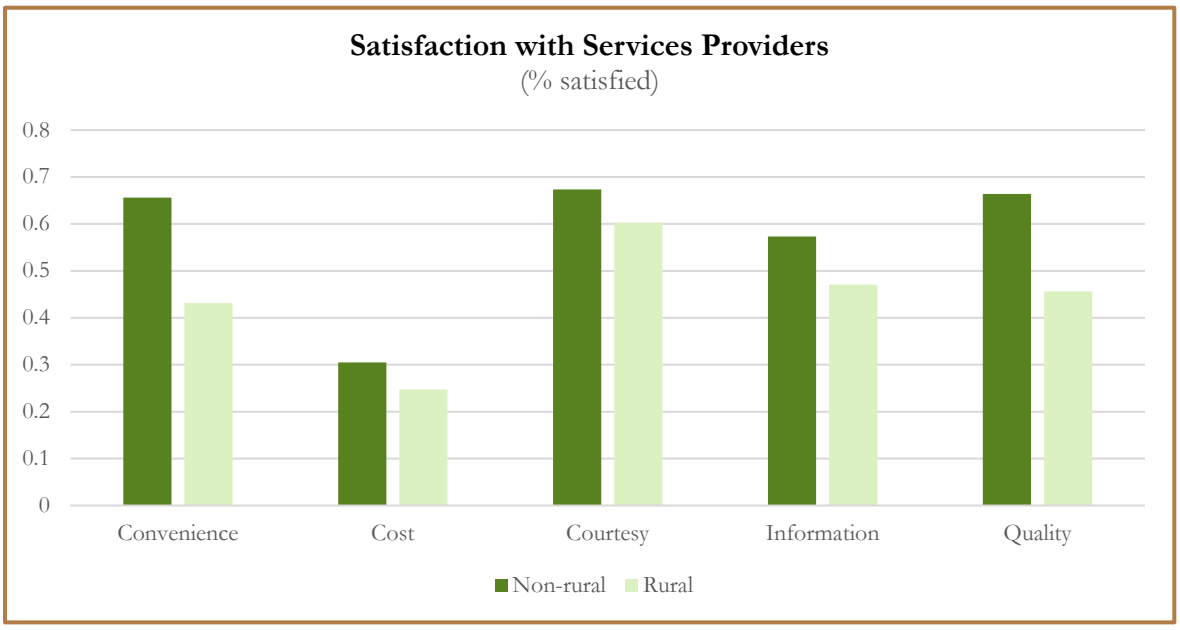
KEY MESSAGES: HEALTH BEHAVIORS

- **Appalachian and rural counties in Ohio rank lower in overall health behaviors, indicating that populations in these counties tend to have higher rates of smoking, obesity, among other factors.**
- **People in rural counties are more likely to use urgent care and nurse practitioners in their home county.**
- **Specialty care and women's health services are difficult to access in rural counties.**

HEALTH OUTCOMES

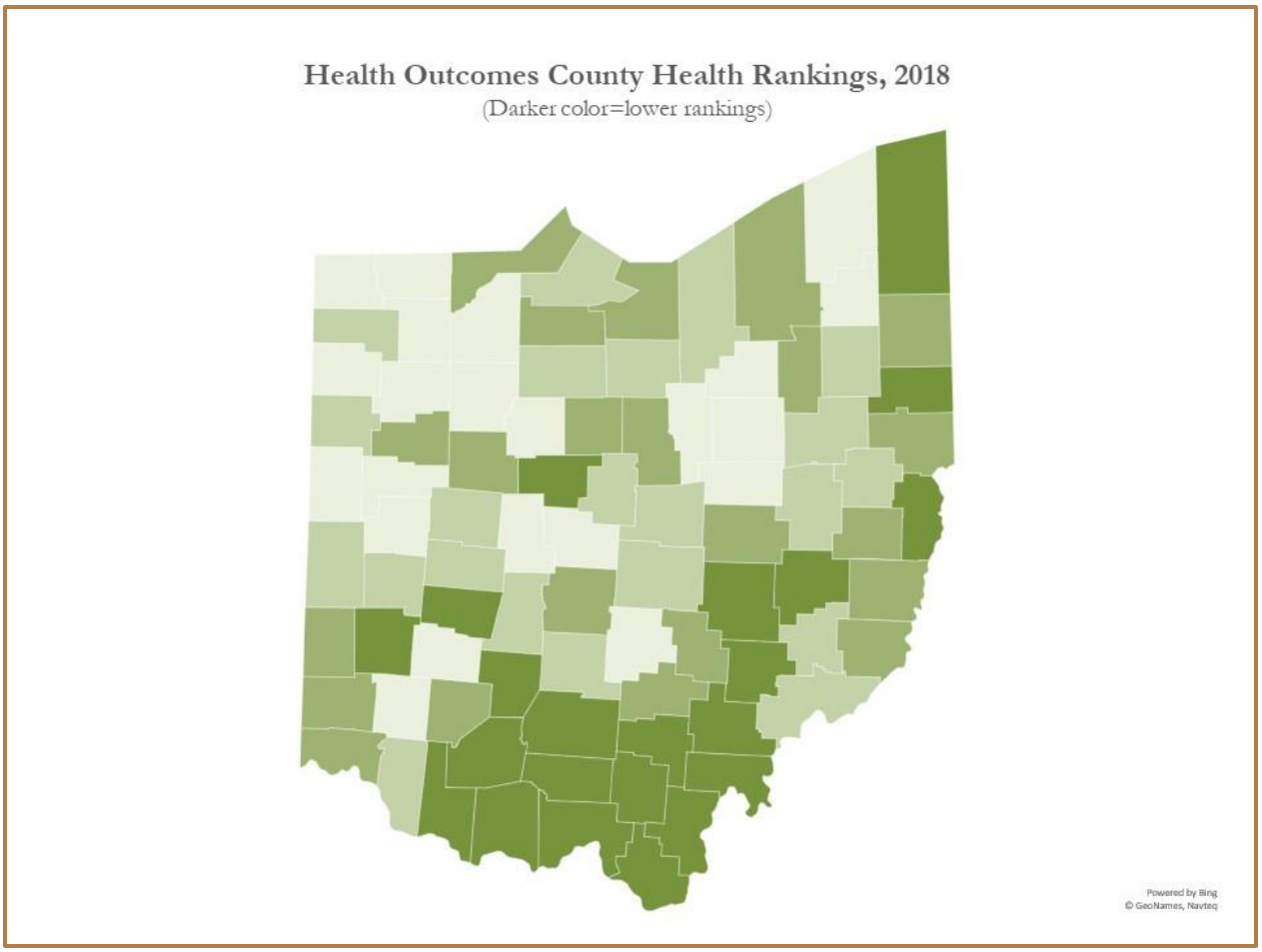
The overall goal of access to health care is to improve health outcomes of individuals and populations. Some of the indicators for outcomes are found in perceptions of health status and how satisfied people feel about their care.

- Rural respondents are generally **less satisfied** with all aspects of health care; the differences are statistically significant.
- All respondents are generally **not satisfied** with cost of health care; this is the only category where rural and non-rural respondents agree.



County Health Rankings

- Robert Wood Johnson ranks health outcomes in counties based on 1) how long people live and 2) how healthy people feel.
- Appalachian and rural counties in Ohio rank the lower than other counties for health outcomes.



KEY MESSAGES: HEALTH OUTCOMES

- **Appalachian and rural counties in Ohio rank lower in overall health outcomes, indicating that populations in these counties are less healthy overall than other counties.**
- **People in rural counties are less satisfied with many health care services, which could lead to avoiding access to care.**

SECTION III: STRATEGIES FOR IMPROVING ACCESS TO CARE

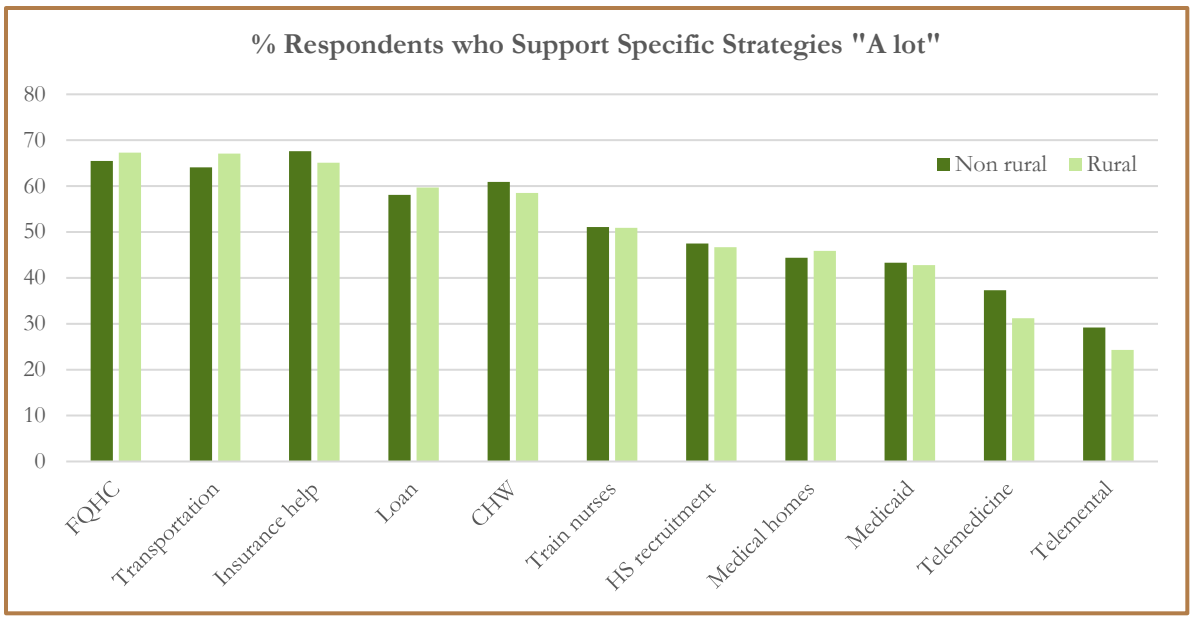
SUPPORT FOR STRATEGIES

Robert Wood Johnson Foundation (RWJF) developed a comprehensive guide of strategies to address access to health care. *What Works for Health* offers evidence-based approaches to improving access. We included eleven strategies on the statewide survey and asked respondents to indicate their level of support. The strategies as written on the survey are ranked by support from rural respondents:

1. FQHC: Make sure places that get money from the federal government and provide health care to everyone can stay open.
2. Transportation: Improve transportation for people to get health care.
3. Insurance help: Help people find health insurance.
4. Loan: Make it easier for students to afford their education if they agree to work in health care in the county or other rural areas.
5. CHW: Train people who live in the county to help other people understand and get health care services (Community Health Workers).
6. Train nurses: Give new nurses more training.
7. HS recruitment: Get more high school students to go into health care.
8. Medical homes: Have a single office or clinic that helps you arrange all of your medical care.
9. Medicaid: Increase the amount of money that health care providers get from Medicaid.
10. Telemedicine: Use computers or phones to provide general health care.
11. Telemental: Use computers or phones to provide mental health care.

Survey Results

- Rural respondents **(67.3%)** are **slightly more** supportive of federally qualified health centers than non-rural respondents **(65.5%).**
- Rural respondents **(67.1%)** are **slightly more** supportive of transportation programs than non-rural residents **(64.1%).**
- Only **31.2%** of rural respondents support telemedicine and only **24.3%** of rural respondents support telemental health services.



KEY MESSAGES: SUPPORT FOR STRATEGIES

- **Telemedicine may not be an effective strategy to improve access to care in rural areas.**
- **Strategies that improve local access and include funding and transportation assistance should be considered by decisionmakers.**
- **In some cases, the most effective strategy is to improve education and outreach related to existing health care services.**

PRIORITIZING STRATEGIES

We developed a rubric to use in evaluating and prioritizing strategies in local communities. The rubric is intended to be a qualitative approach to rating the impact and feasibility of specific strategies in the context of local conditions. The rubric can be implemented with a group of health professionals.

Rubric for Evaluating Potential Strategies to Address Access to Care					
	Indicator	**High (2 points)**	**Moderate (1 point)**	**Low (0 points)**	**Score**
Impact Criteria	# of people served	Strategy has potential to improve health care access for more than 50% of the population	Strategy has potential to improve health care access for 25-50% of the population	Strategy has potential to improve health care access for less than 25% of the population	
	Population characteristics	Strategy only focuses on underserved and low-income people and other vulnerable populations	Strategy has some focus on underserved and low-income people and other vulnerable populations	Strategy does not focus on underserved and low-income people and other vulnerable populations	
	RWFJ rating	RWJF rating of SS (scientifically supported)	RWJF rating of SE (some evidence) or EO (expert opinion)	RWJF rating of IE (insufficient evidence), Mixed (mixed evidence) or EI (evidence of ineffectiveness)	
				Total Impact Score	
Feasibility Criteria	Cost	Strategy does not require new funding sources	Strategy requires new funding sources <$50,000	Strategy requires new funding sources >$50,000	
	Personnel	Strategy relies on the involvement of community members	Strategy involves a few key stakeholders in the community	Strategy does not involve community members	
	Time	Strategy can be implemented within 24 months	Strategy will take more than 24 months to implement	Strategy is has no defined timeline or it is impossible to identify the time it will take to implement	
				Total Feasibility Score	

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