



Rural Health Care in Minnesota: Data Highlights

Division of Health Policy, MDH

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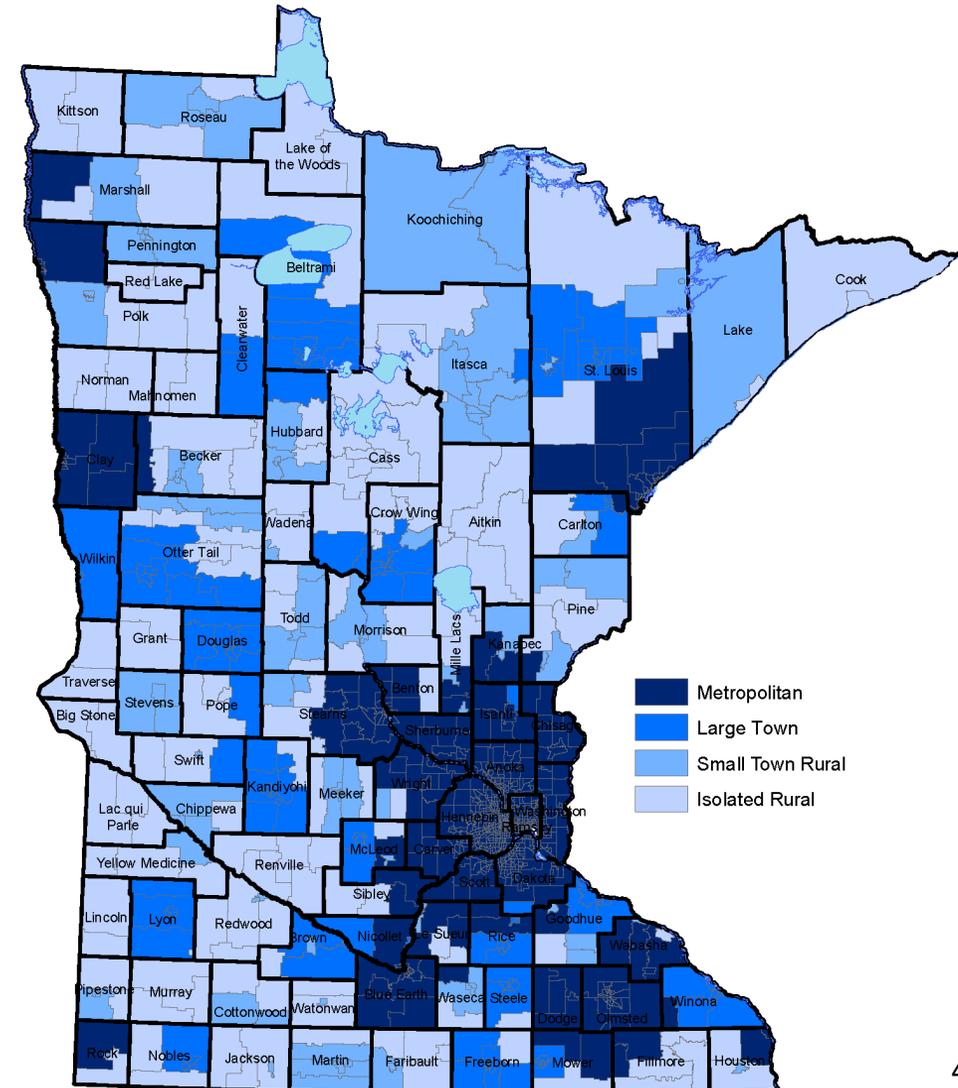
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Technical Notes

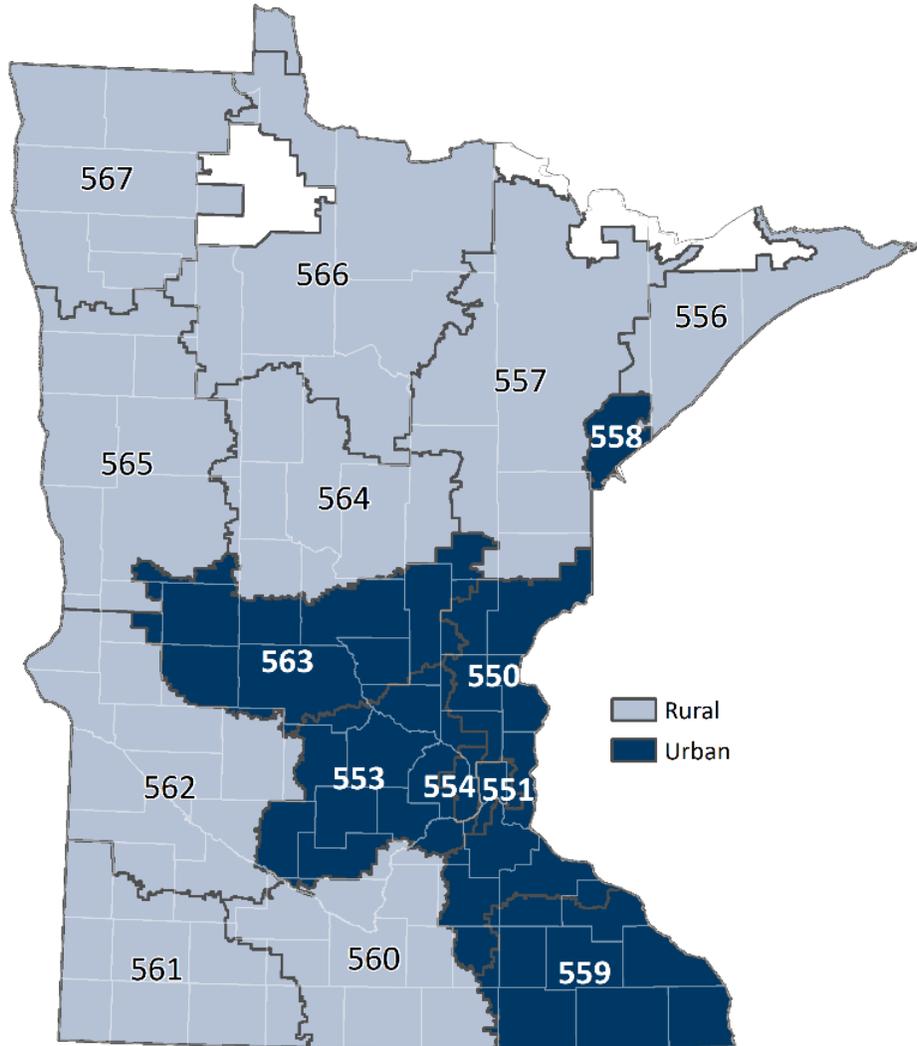
- A summary of all data sources and notes are available here: <https://www.health.state.mn.us/facilities/ruralhealth/docs/summaries/ruralhealthcbdata2019.pdf>
- There are a number of ways to report on rurality and geography. This chartbook uses the following four constructs (defined in subsequent slides). The use of a particular construct is informed by the availability of the data.
 - Rural-Urban Commuting Area codes (RUCA codes)
 - Economic Development Regions (EDRs)
 - State Community Health Services Advisory Committee (SCHSAC) regions
 - Three-digit zip codes
- When possible, the most up-to-date data are used. Therefore, the data year(s) presented may vary across the chart book.
- To access this chart book in an alternate format, a summary of the charts, graphs and maps is available here: <https://www.health.state.mn.us/facilities/ruralhealth/docs/summaries/ruralhealthcbdata2019.html>.
- Direct links are listed on each slide.

Defining Rural: Rural-Urban Commuting Area (RUCA) Codes

- Rural-Urban Commuting Areas are one of many ways to measure rurality.
- RUCAs take into account population density, urbanization and daily commuting patterns to identify urban and rural regions of the state.
- Current definitions are based on 2010 census data. More areas of the state became urban between the 2000 and 2010 census.
- For slides with two categories, unless otherwise noted:
 - urban = metropolitan
 - rural = large town + small town rural + isolated rural

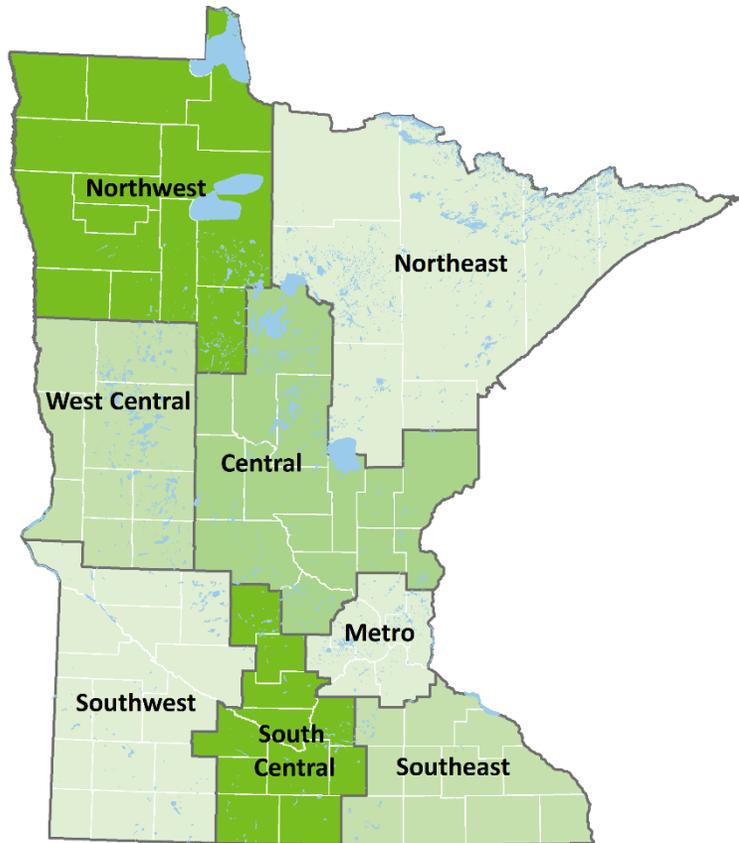


Defining Rural: Three-digit zip codes



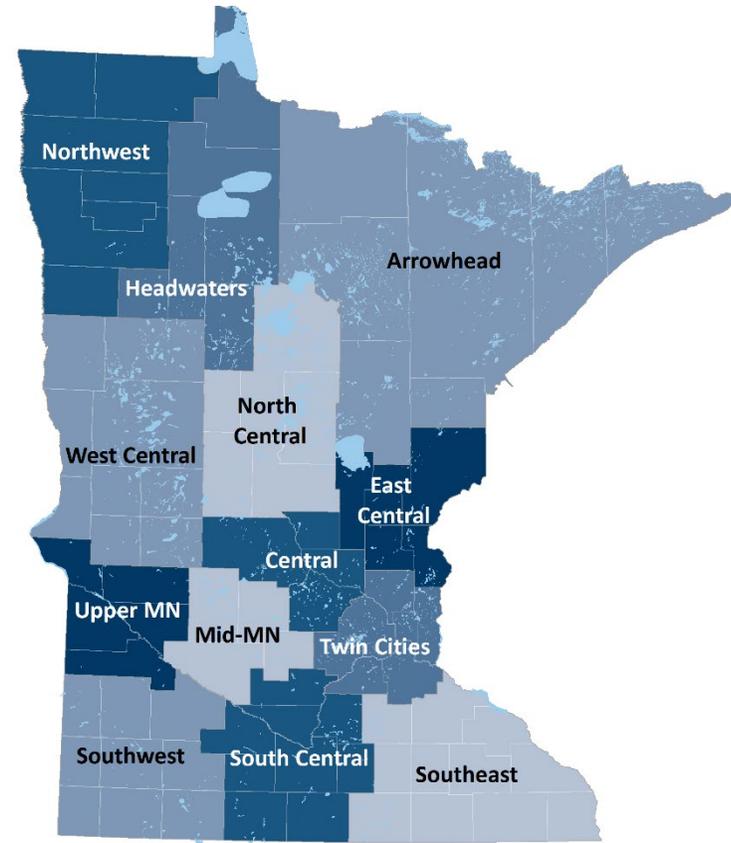
- Divides the state into 16 areas based on the first three digits in zip codes
- Crosses county boundaries
- Nine are considered rural and seven are considered urban, based on if the majority of the population of ZIP code tabulation areas is in a rural or urban RUCA.

Defining Rural: Regions



State Community Health Service Advisory Committee (SCHSAC) Regions

- 8 regions based on groups of counties
- Focused on developing, maintaining and financing community health services.



Economic Development Regions

- 13 regions based on groups of counties
- Created by the Minnesota Department of Employment and Economic Development (DEED)
- Used for labor force and employment characteristics

State of Rural Minnesota

What are the demographic characteristics of rural Minnesota?

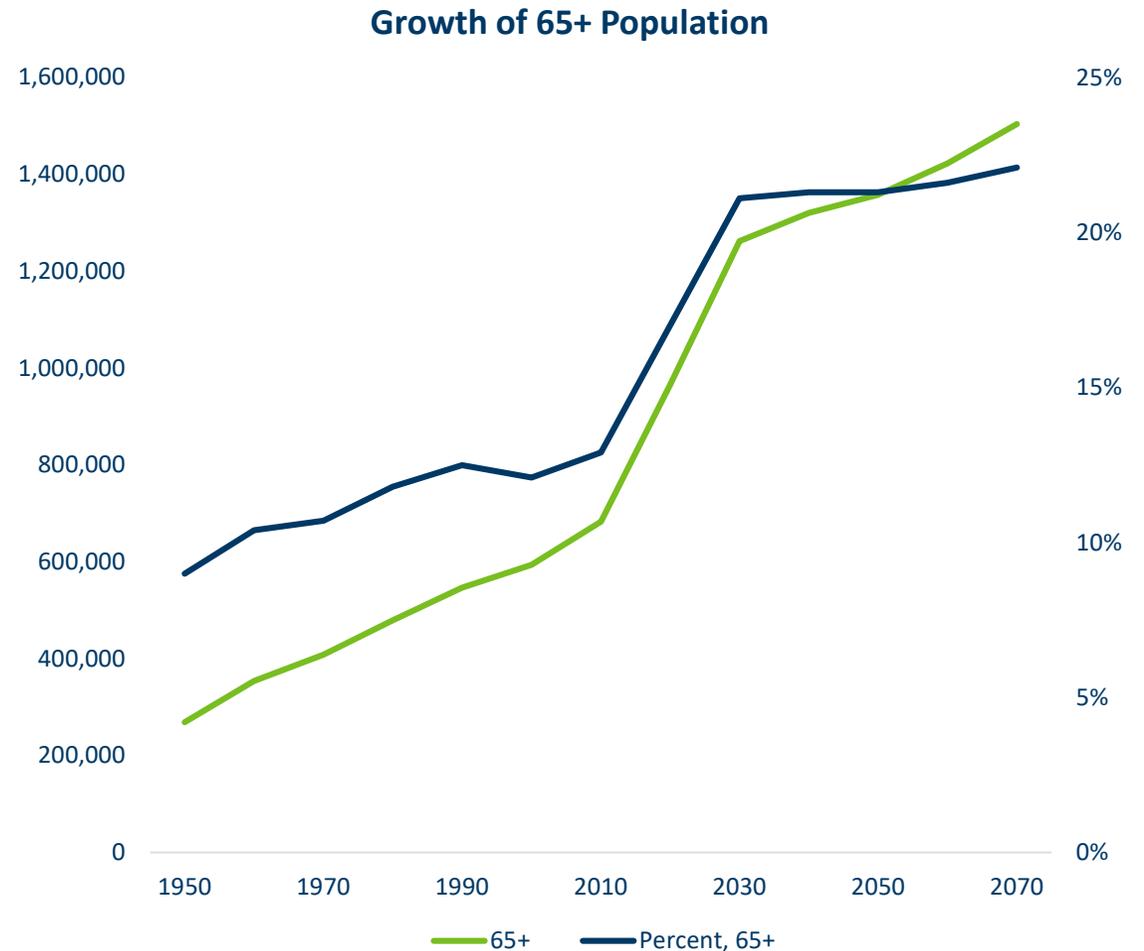
Key points – Minnesota rural demographics

- 27% of the state's population resides in non-metro areas, and 8% live in isolated rural areas
- Rural Minnesotans are older, and more likely to have incomes below the state median
- 122,000 rural Minnesotans live in areas of concentrated poverty
- About 90% of rural residents are white
- Most rural counties have seen population declines since 2010, due to both natural factors (births minus deaths) and migration
- Most counties in the state will be increasingly relying on migration to fuel population growth

Source: Minnesota Demographer's Office, "Greater Minnesota, Refined & Revisited." January 2017 https://mn.gov/admin/assets/greater-mn-refined-and-revisited-msdc-jan2017_tcm36-273216.pdf

The population of Minnesota – and the country – is aging

- By 2030, more than 1 in 5 Minnesotans will be over 65. The total number of older adults (65+) is anticipated to double between 2010 and 2030.
- Residents of rural and small town Minnesota are twice as likely to be age 80 or older than those in urban areas.

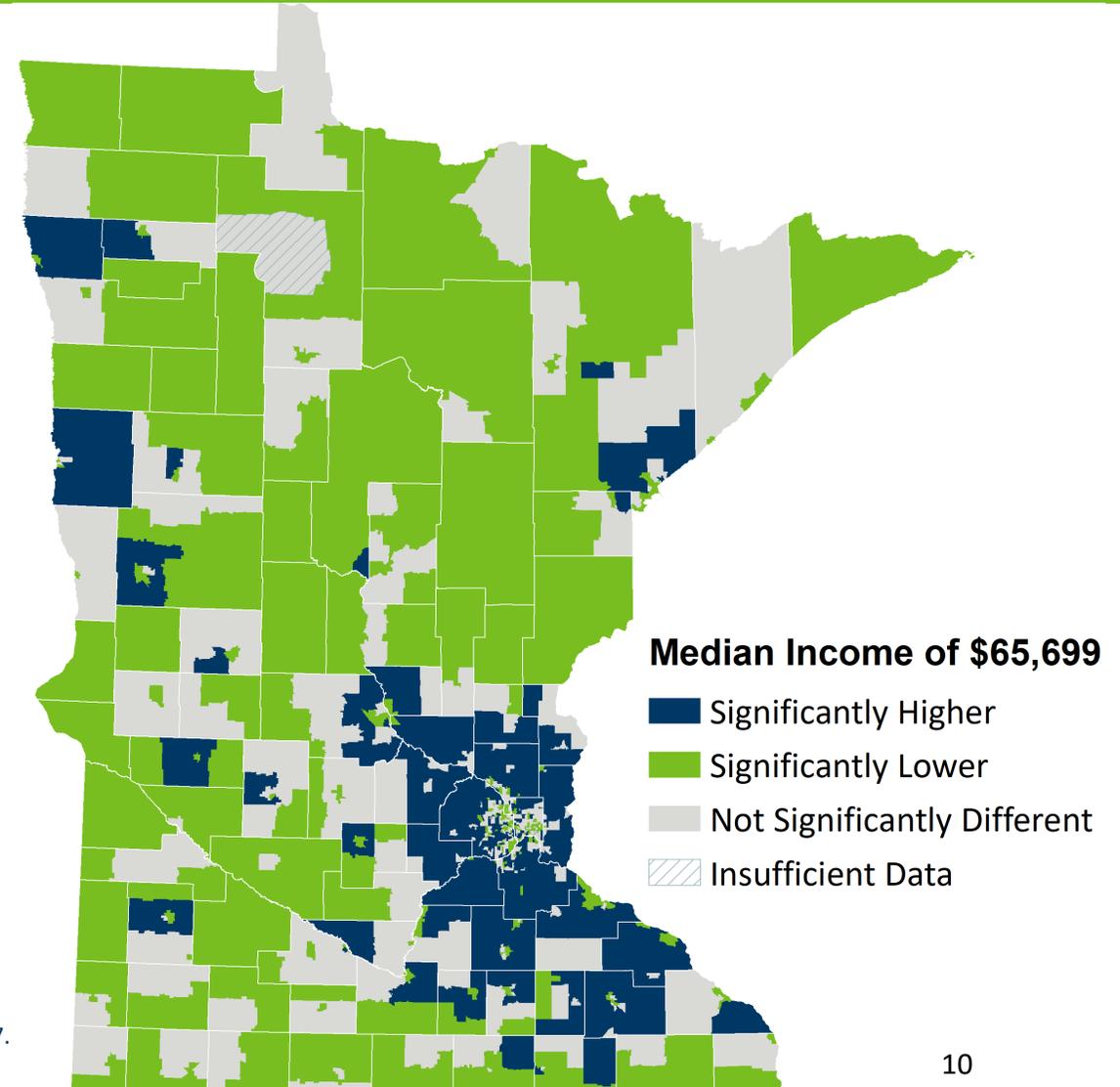


People living in rural Minnesota are more likely to have household incomes below the statewide median income

More than half of people living in rural areas have household incomes below the statewide median income

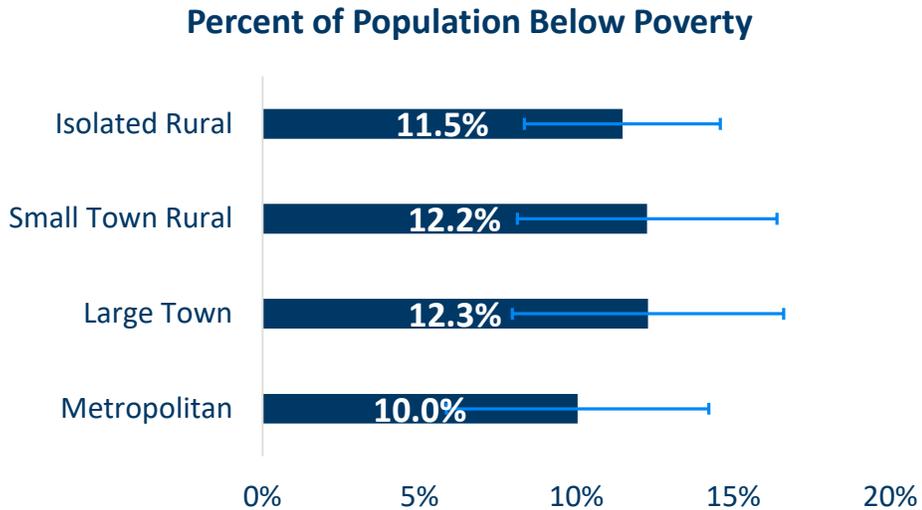


In small towns and isolated rural areas, only 2.3 percent and 1.4 percent, respectively, are above the median income.

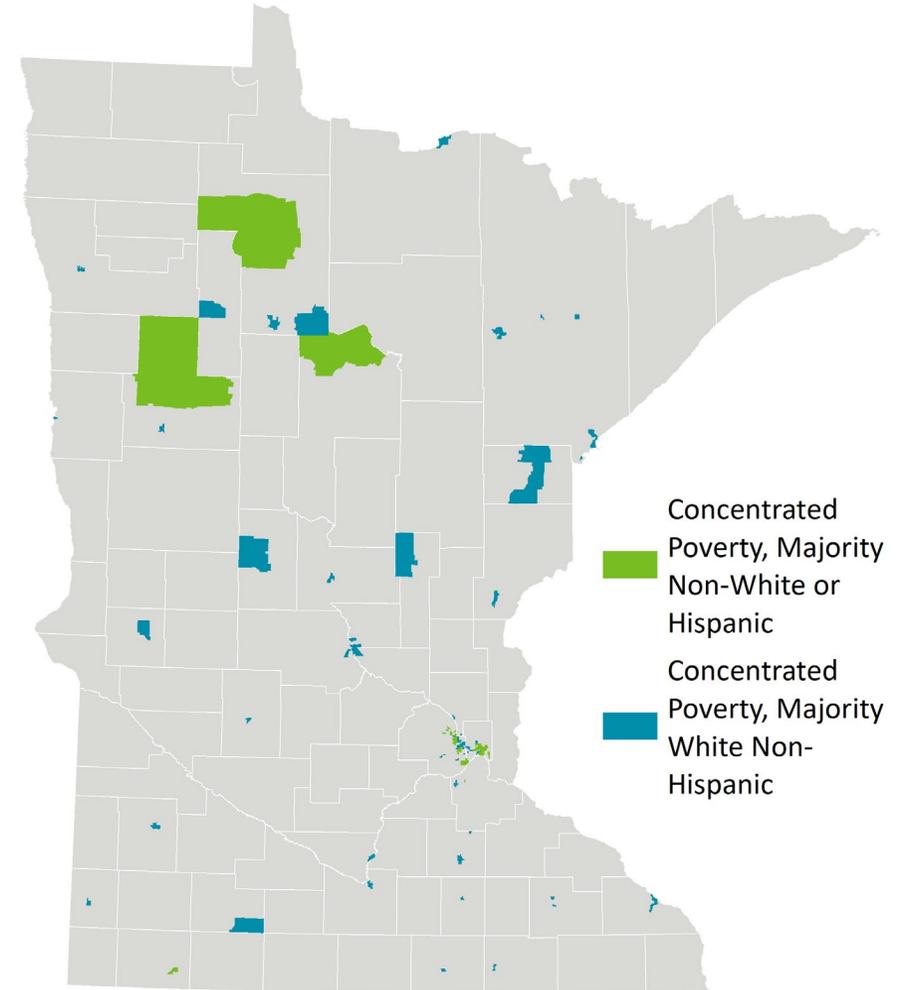


Areas of concentrated poverty occur in both rural and urban areas of the state

There are an estimated 122,000 people living in concentrated poverty areas in rural Minnesota.



Note: The percentages are not statistically different by geographic category.
Source: MDH/Health Economics Program analysis of the American Community Survey Five-Year Estimate 2013 to 2017.
[Summary of Slide](#)



Note: 'Concentrated poverty' is defined here as having more than one in five residents living in poverty at the census tract level.

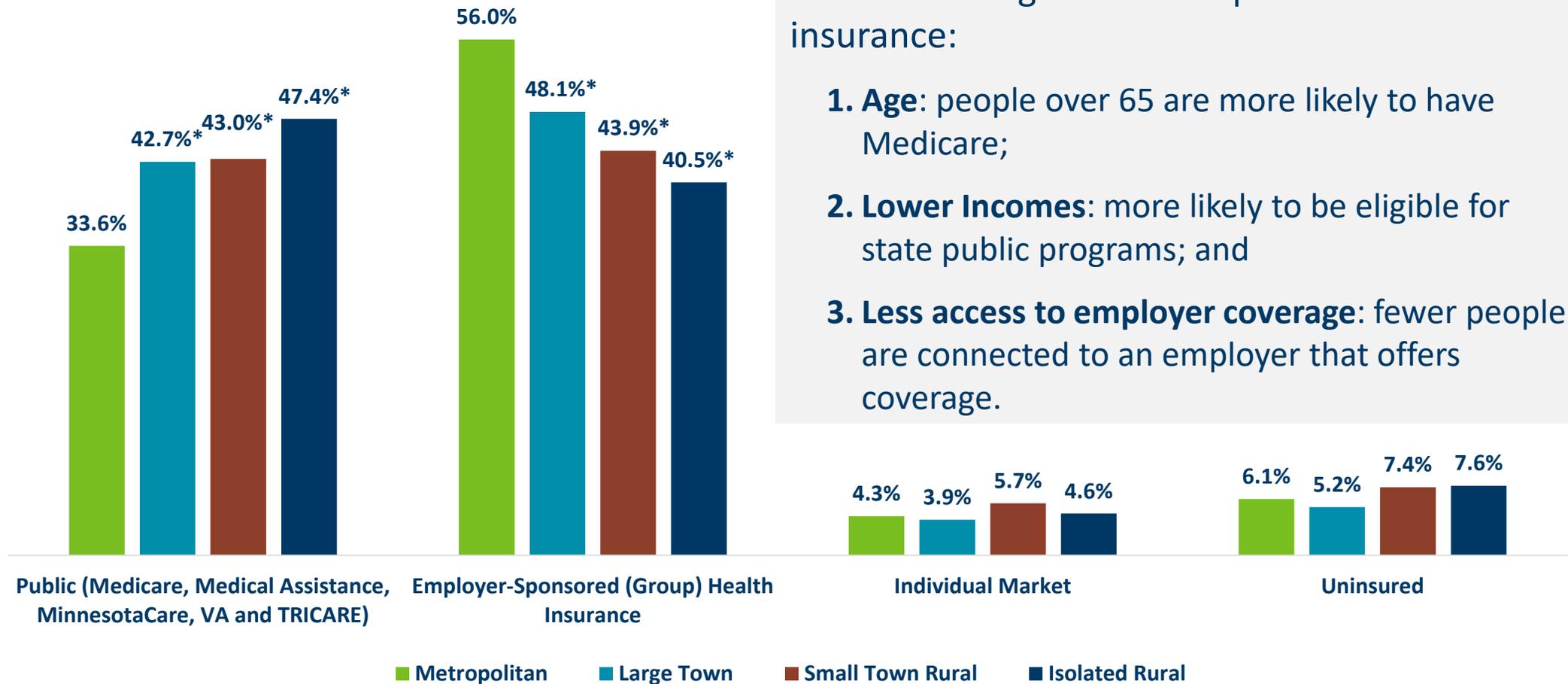
Structure of Rural Health System: An Overview

How do people in rural areas access health care? Where are health care facilities in the state?

Key points – Access to health care

- Rural residents are more likely to get health care through public sources, such as Medicare, Medicaid and MinnesotaCare.
- While health care facilities are distributed throughout the state, they are more spread out in rural areas.

Rural Minnesotans are more likely to have public health insurance coverage, such as Medicare, Medicaid or MinnesotaCare



Reasons for higher rates of public health insurance:

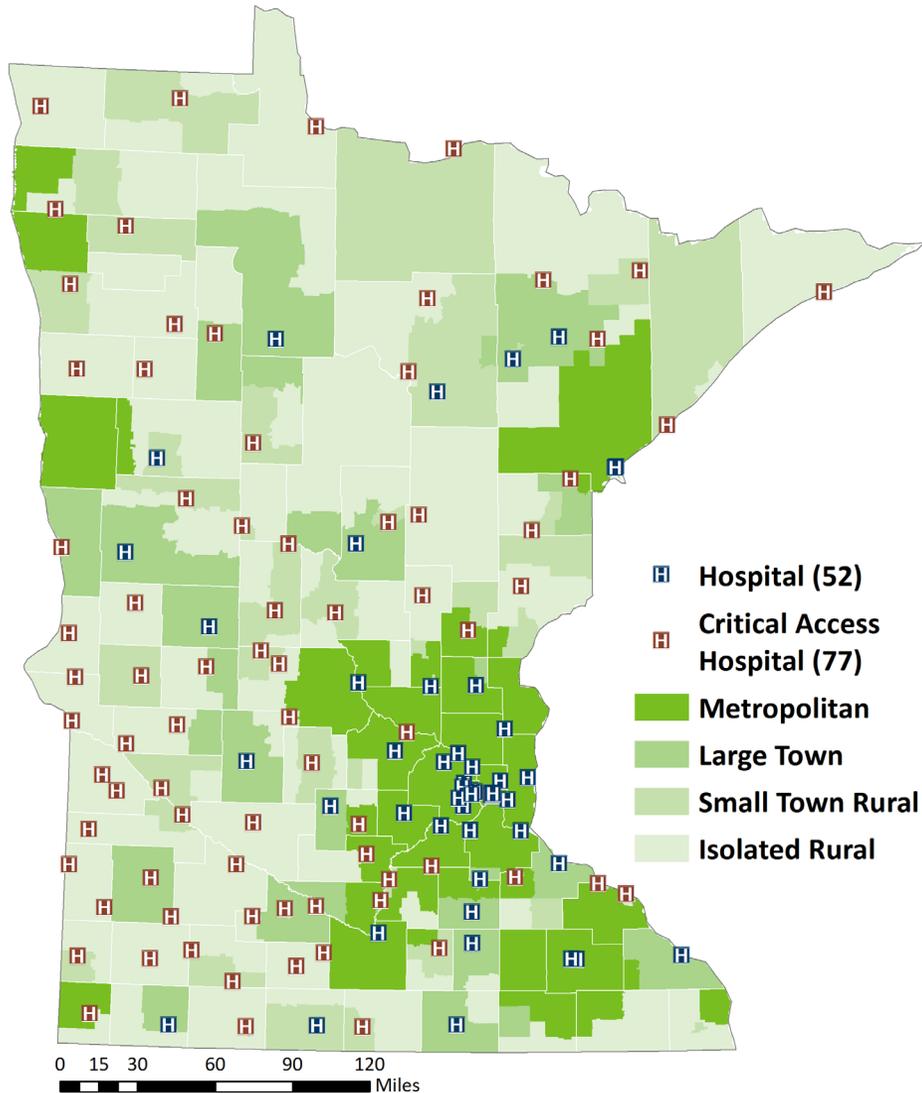
- 1. Age:** people over 65 are more likely to have Medicare;
- 2. Lower Incomes:** more likely to be eligible for state public programs; and
- 3. Less access to employer coverage:** fewer people are connected to an employer that offers coverage.

Source: Minnesota Health Access Survey, 2017; Geographies based on RUCA zip-code approximations.

*Indicates significant difference from Metropolitan at the 95% level.

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Hospital and nursing home services are available throughout the state



- Of the 129 community hospitals in Minnesota, 77 are designated Critical Access Hospitals.^{1,2}
- In total, 91 hospitals are located in rural areas.¹
- Around one-third of all hospital outpatient clinics in the state, 165 of 502 total clinics, are in rural areas.^{1,3}
- All but one county, Red Lake, has at least one nursing home as of 2018.⁴

1 Source: MDH Health Economics Program analysis of hospital annual reports, October 2019.

2 There are 78 Critical Access Hospitals in Minnesota; however one is an Indian Health Services Hospital. This is not included in the count of community hospitals, which are limited to non-federal short-term general and other special hospitals, and are accessible by the general public.

3 Outpatient clinics are designated by the hospital and may not be co-located with the hospital, but are billed to Medicare under the hospital's provider identification number.

4 Source: Minnesota Department of Health, Health Economics Program analysis of 2018 Directory of Registered, Licensed and/or Certified Health Care Facilities and Services

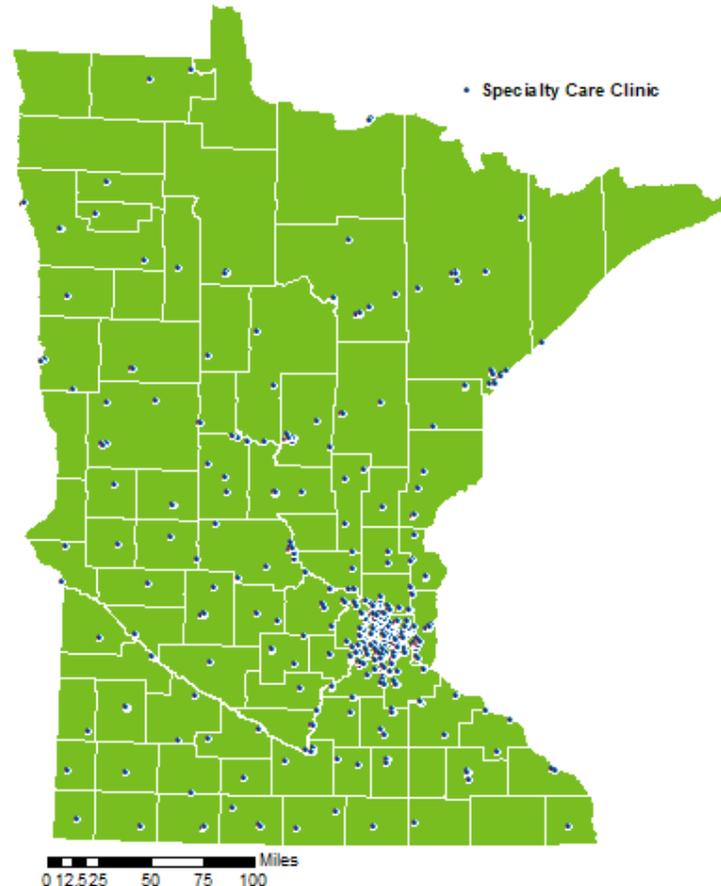
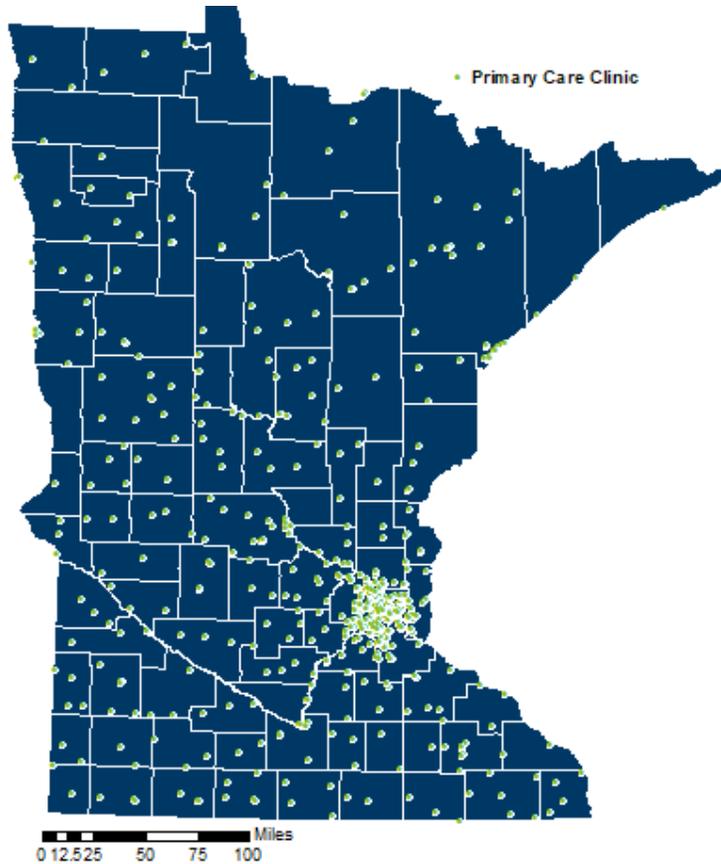
(<https://www.health.state.mn.us/facilities/regulation/directory/docs/2018mdhdirectory.pdf>).

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Primary and specialist clinics are available throughout Minnesota

Primary Care Clinics, 2018

Specialty Care Clinics, 2018



- 37% (266) of all primary care clinics (713) are located in rural areas¹
- 19% (227) of all specialty care clinics (1,183) are located in rural areas.¹
- Minnesota Community Health Centers served 190,690 residents in 2018.²

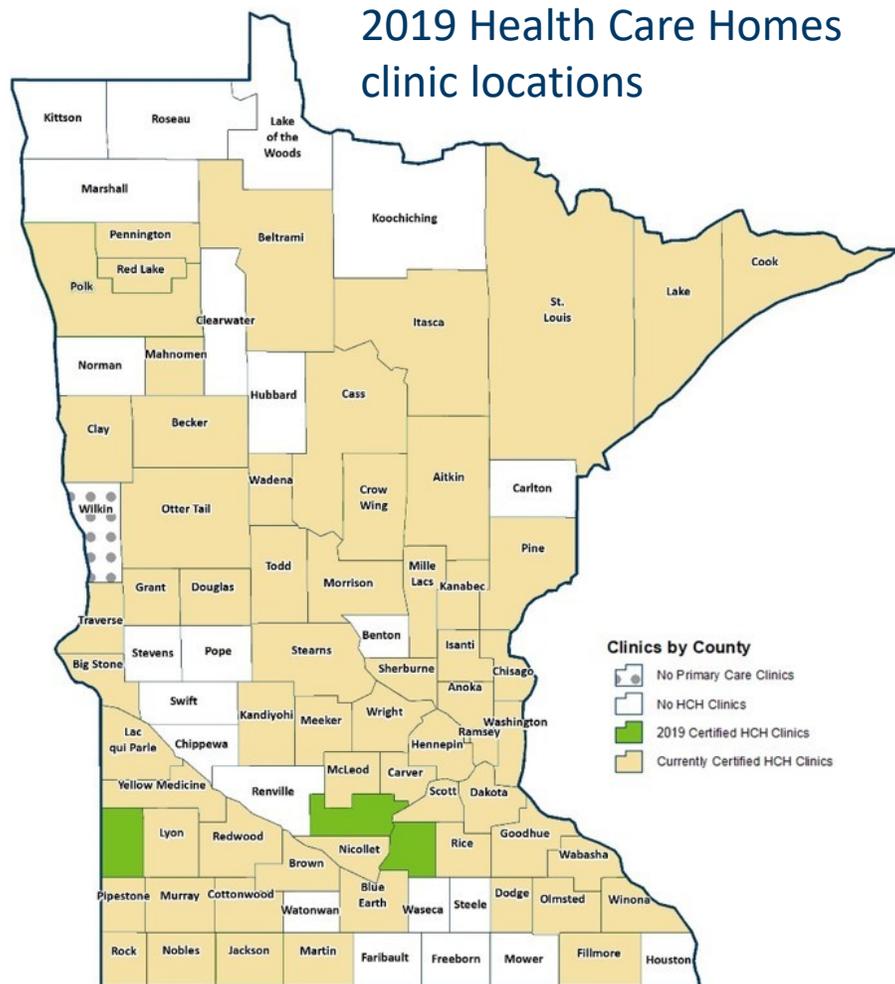
Map Notes: Dots represent the number of clinics, and do not account for patient population or number of practicing physicians. Primary Care includes general family medicine, general internal medicine, and general pediatrics; Specialty Care includes one or more non-primary care specialty. 78.9% of the population lives in urban areas, and 21.1% of the population lives in rural areas.

¹ Source: MDH Health Economics Program analysis of the Minnesota Statewide Quality Reporting and Measurement System Physician Clinic Registry; also source for maps.

² Source: mnachc.org/community-health-centers/health-center-data/

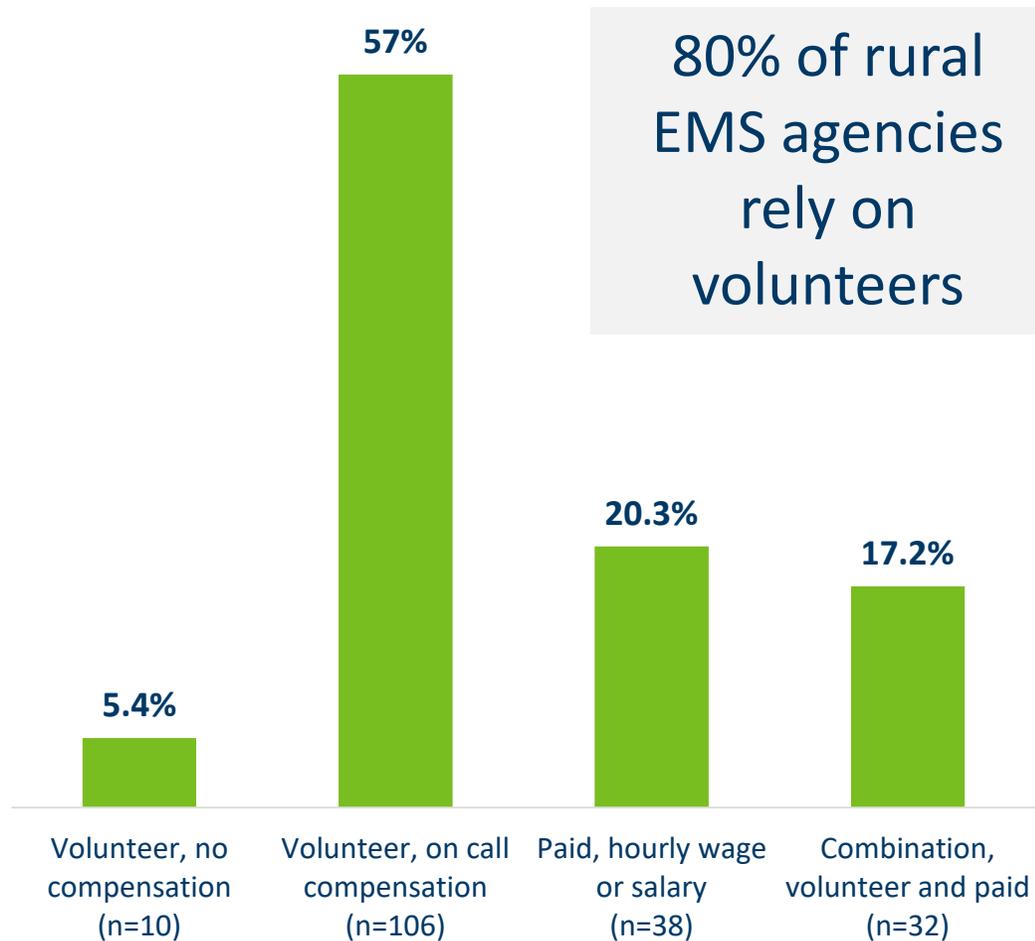
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Person-centered, coordinated primary care available to most Minnesotans



- MDH certifies primary care clinics and clinicians as health care homes, known nationally as a patient centered medical homes
- The health care home clinic team coordinates care with the patient and their family to ensure whole person care and improve health and well-being
- 74% of MN counties have at least one health care home clinic
- 196, or about one half, of the 398 certified health care home clinics are in rural areas (SCHSAC regions)
- Rural health care home clinics serve approximately 1.5 million patients

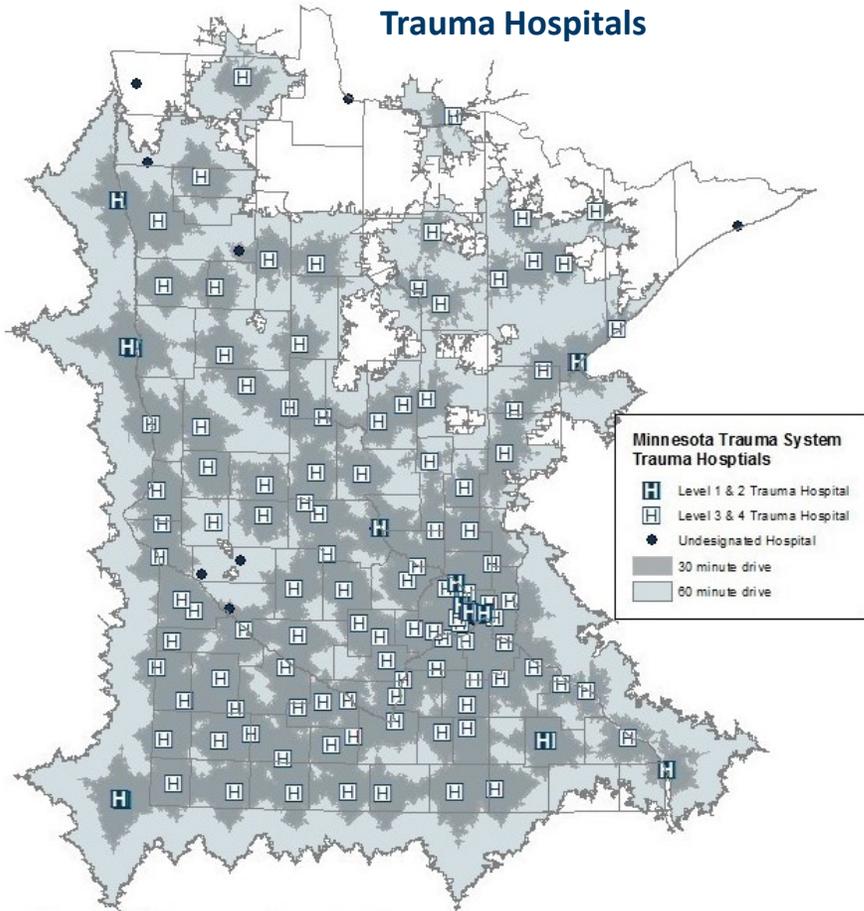
Rural Emergency Medical Services (EMS) reliance on volunteerism is unsustainable



- Rural EMS agencies rely on volunteers, but face decreasing volunteer roster sizes, and many shifts (weekdays, weekends, holidays) are difficult to fill.
- About 60% of agencies have inadequate staff to cover their call schedule without undue burden.
- 59% of agencies do not have all of their shifts covered at least 24 hours in advance.
- 88% of agencies provide Basic Life Support (not paramedic level services) to their communities.

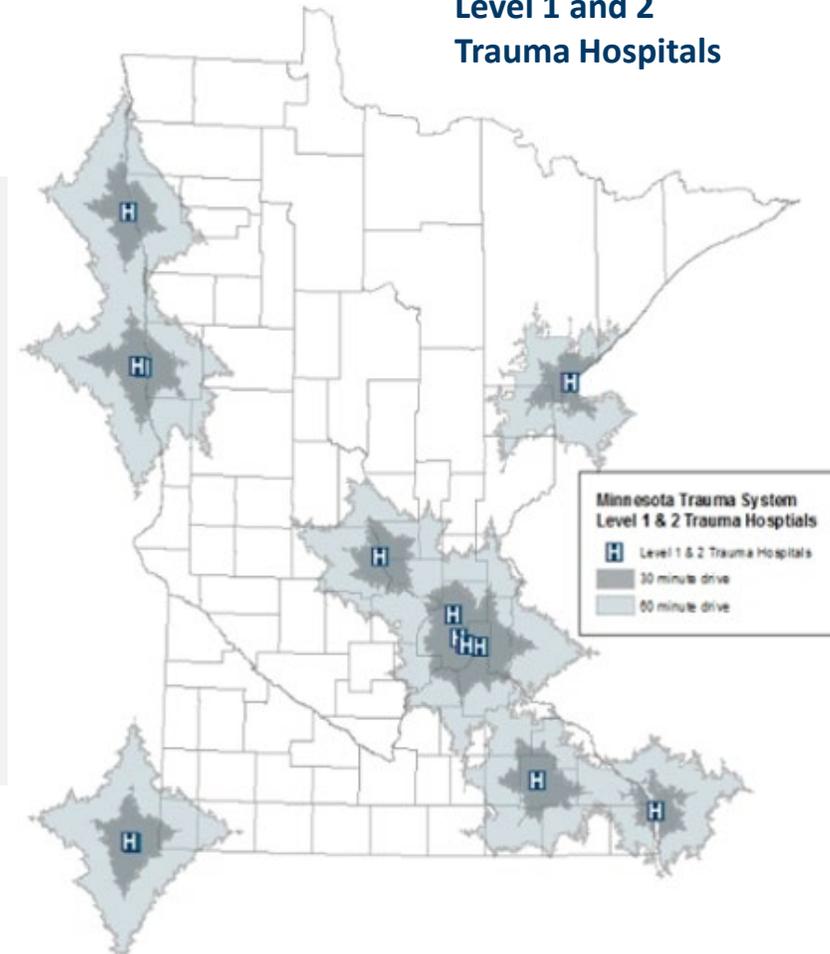
Access to critical trauma care is available throughout the state

Drive Times to Designated Trauma Hospitals



121 of 130 hospitals have a trauma designation. 98% of Minnesotans live within 60 minutes of a designated trauma hospital.

Level 1 and 2 Trauma Hospitals



74% of Minnesotans live within 60 minutes of a Level 1 or Level 2 trauma hospital.

Rural Health Care Workforce

What is the composition, demographics and geographic distribution of the state's licensed health care workforce?

Key points – Health care workforce

- Nurses make up the largest share of the state's licensed providers, and are the foundation of the health care system.
- There is a maldistribution of providers in the state—the majority work in the urban areas. Consequently, the rural parts of the state face a severe shortage of all provider types, especially in primary care and mental health.
- 80% of Minnesota counties qualify as mental health professional shortage areas.
- Rural providers are older and closer to retirement.

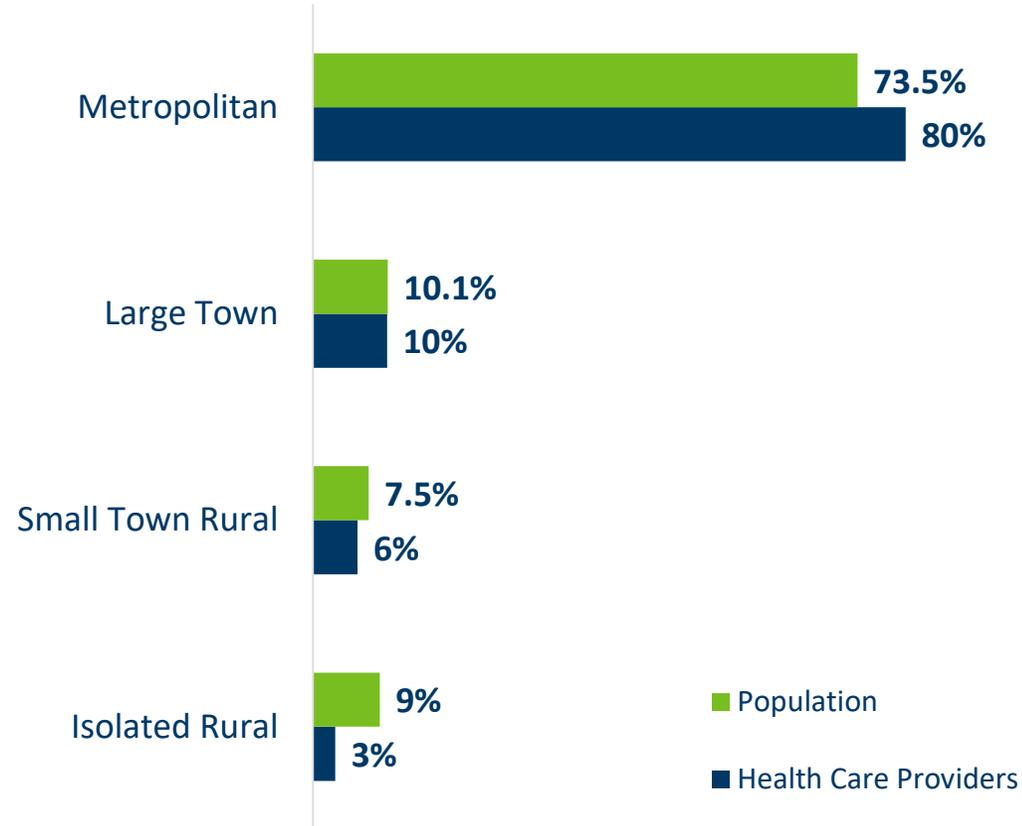
Registered nurses and licensed practical nurses make up the majority of the health care workforce in Minnesota

License Type	Number of Providers in Minnesota in 2019
Registered Nurses and Licensed Practical Nurses	132,044
Pharmacists and Pharmacy Technicians	39,153
Physicians	24,977
Mental Health Providers	23,431
Advance Practice Registered Nurses	8,976
Physical Therapy Professionals	7,887
Dentists	4,140
Alcohol and Drug Counselors	3,521
Physician Assistants	3,251

Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Health Licensing Boards, October 2019. This table **excludes** Respiratory Therapists and some other smaller licensed occupations, including: Chiropractic, Sports Medicine, and Occupational Therapy

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The majority of licensed health care providers work in metropolitan areas



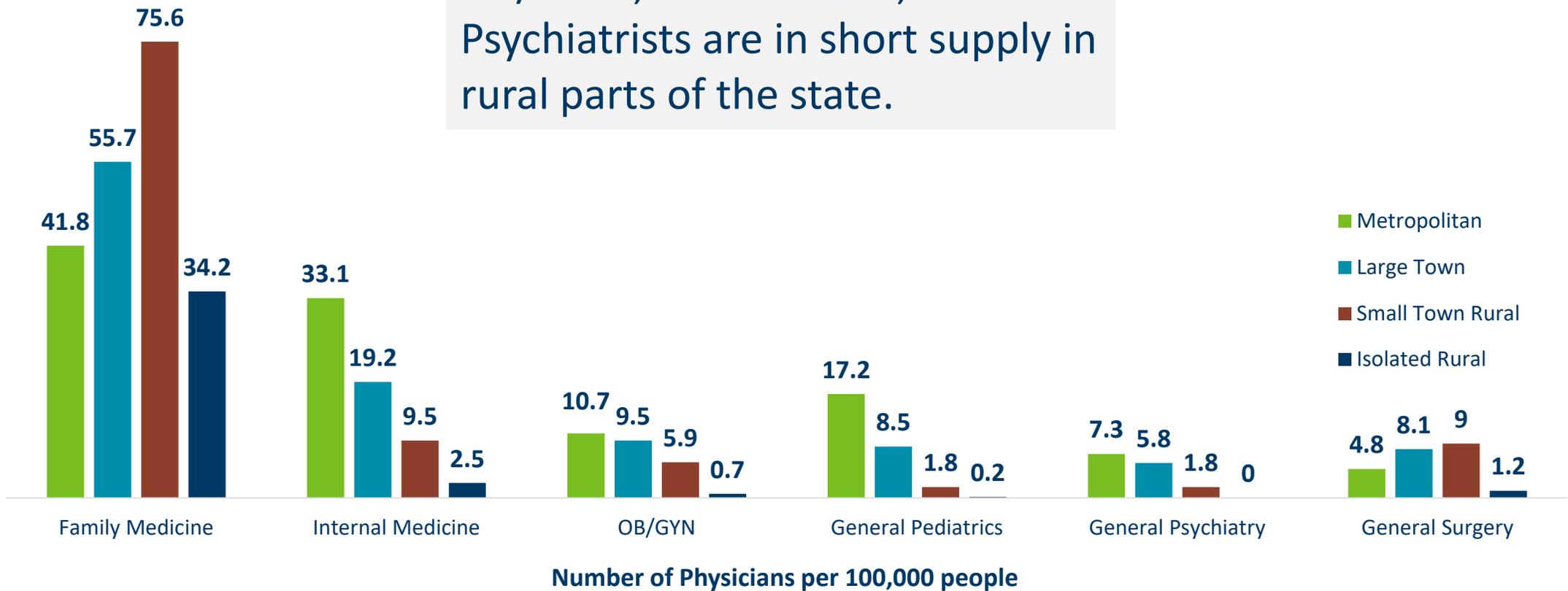
Very few licensed health care providers work in rural areas.

Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Health Licensing Boards, October 2019. Data includes: physicians, physician assistants, respiratory therapists, oral health professions, pharmacy professions, physical therapy professions, and mental health professions.

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Rural areas face severe shortages of primary care physicians

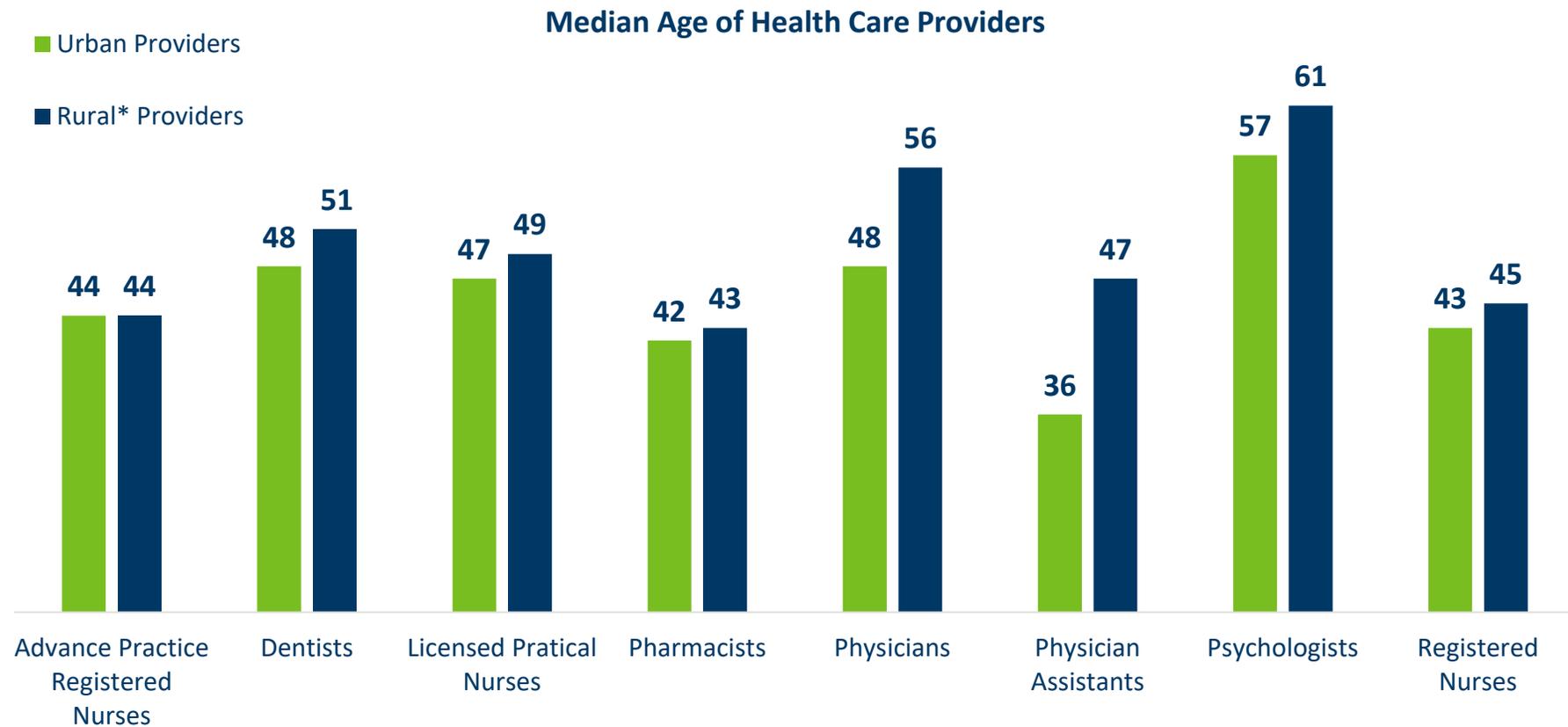
OB/GYNs, Pediatricians, and Psychiatrists are in short supply in rural parts of the state.



Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Board of Medical Practice, June 2019. Counts by region are based on primary practice address that physicians report to the Board.

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Rural providers are older than their urban counterparts

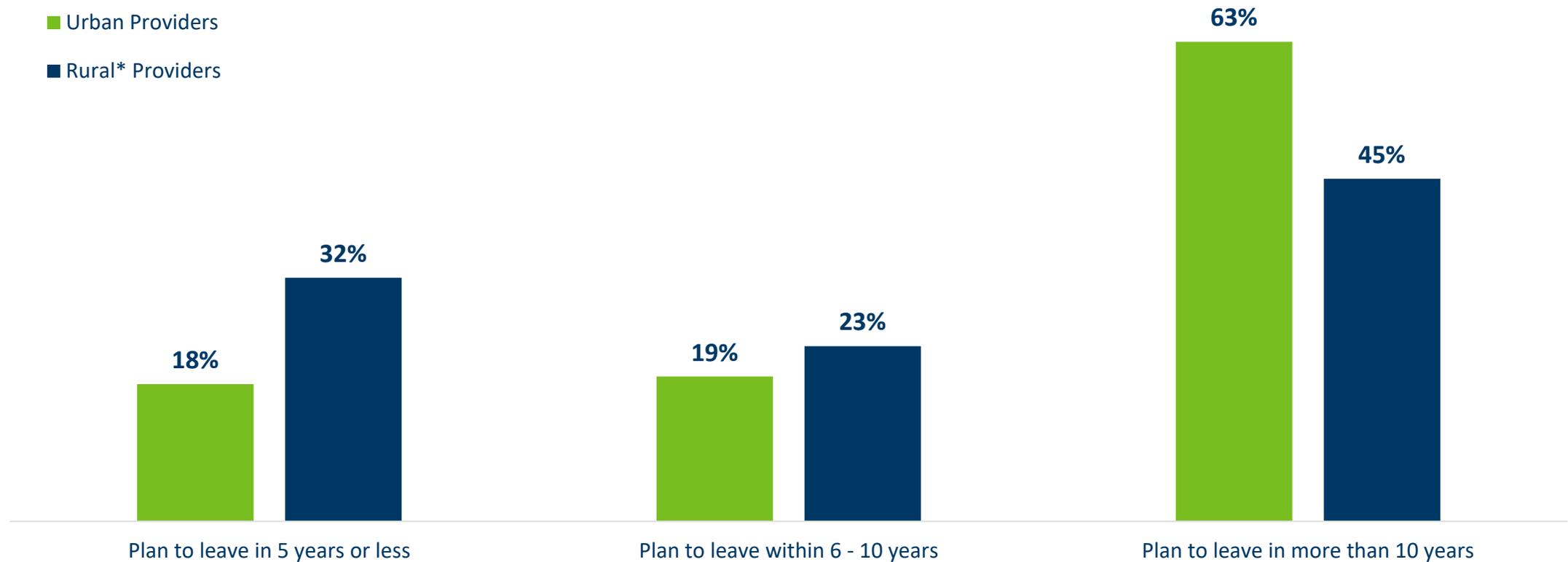


Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Health Licensing Boards, October, 2019.

*Rural = isolated rural from Rural-Urban Commuting Area codes.

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Nearly one-third of rural physicians plan to leave the workforce within the next five years



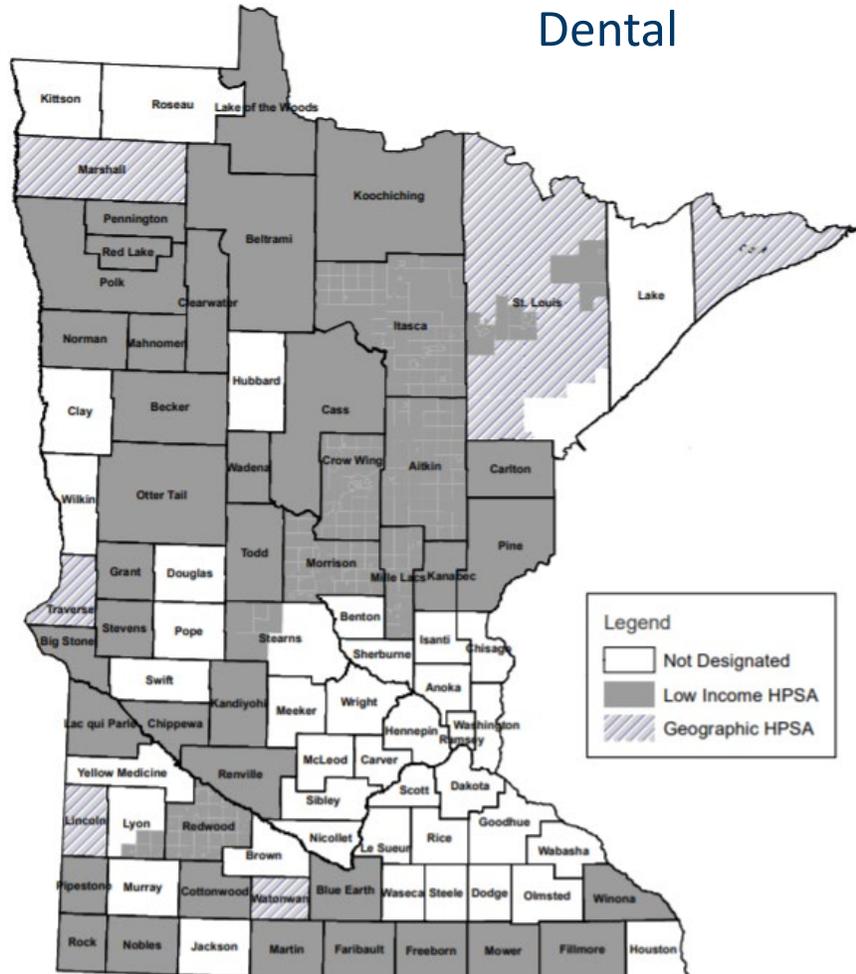
Source: MDH Office of Rural Health and Primary Care, Physician Workforce Survey, 2018.

*Rural = isolated rural from Rural-Urban Commuting Area codes.

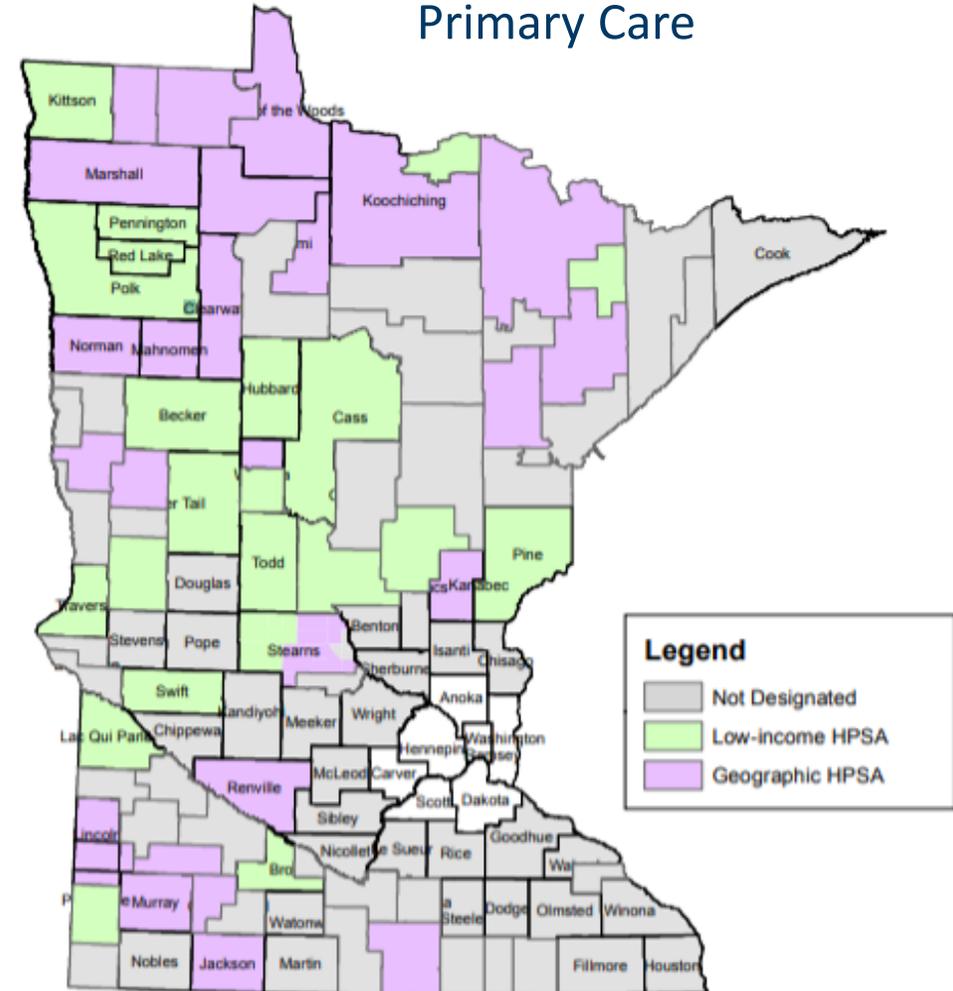
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54 of Minnesota's 87 counties are designated as Health Professional Shortage Areas in Dental and Primary Care

Health Professional Shortage Areas Dental



Health Professional Shortage Areas Primary Care



Availability of Health Care Services in Rural Minnesota

What health care services are available to people living in rural Minnesota, and has it changed over time?

Key points – Health care availability

- The availability of services, especially in hospitals, has been changing over the past 10 to 15 years:
 - Fewer services are available at rural hospitals, or the hospitals have closed.
 - Non-metro counties have seen declines in obstetrics services, and inpatient mental health, chemical dependency and cardiac services.
 - More than half of the nursing home closures between 2003 and 2018 were in rural counties.

Rural hospitals saw service declines due to hospital closures, consolidation, or service loss over the past decade

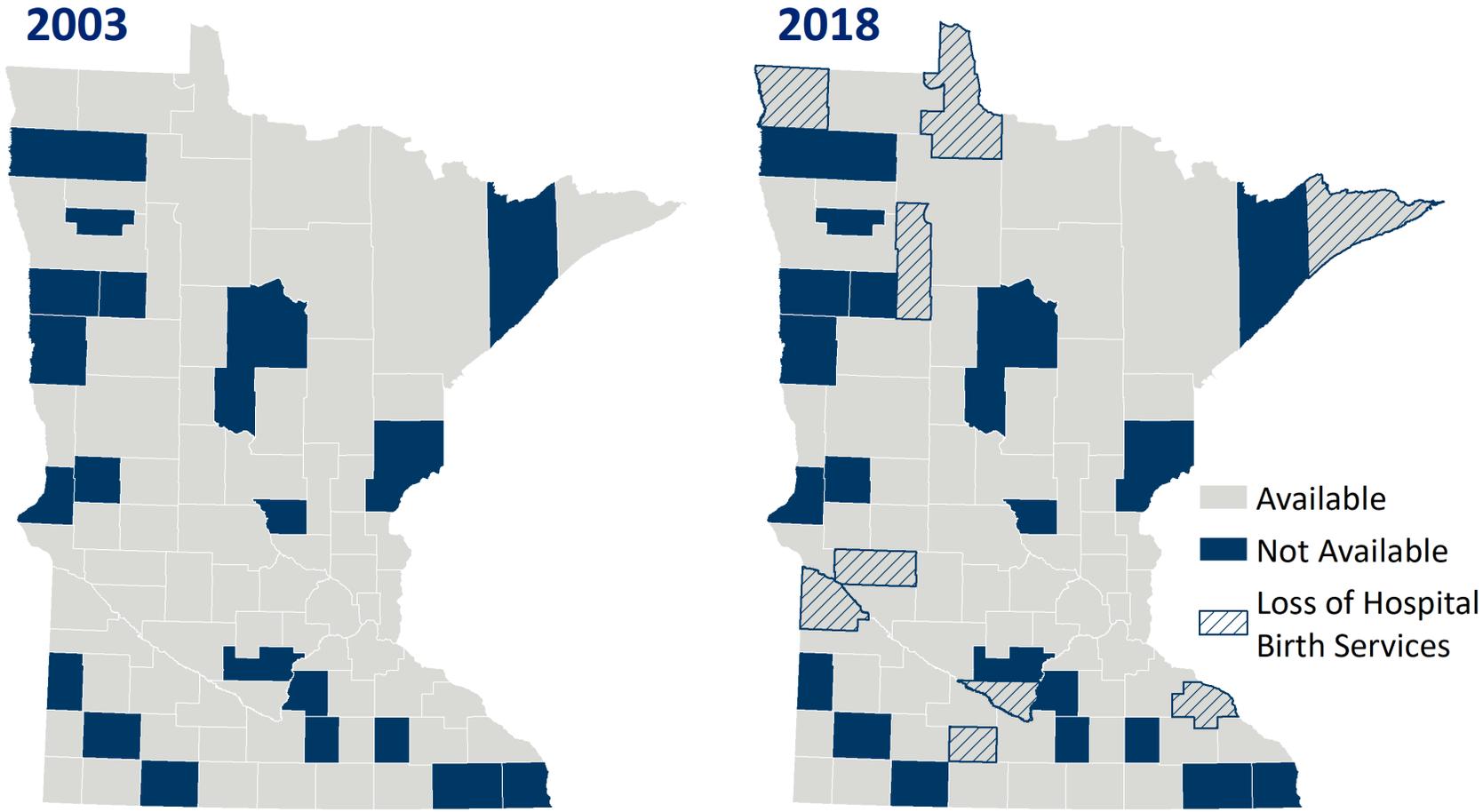
	Hospitals with service available in 2009	Change in Service due to:			Hospitals with service available in 2018	Percent Change 2009 to 2018
		Closure or Consolidation	Lost Service	Added Service		
Surgery						
Inpatient Surgery	93	6	5	1	83	-10.8%
Outpatient Surgery	97	7	0	0	90	-7.2%
Mental Health/Chemical Dependency Services						
Outpatient Psychiatric	36	2	6	14	42	16.7%
Detoxification Services	10	2	4	3	7	-30.0%
Diagnostic Radiology Services						
Computer Tomography (CT) Scanning	98	7	0	0	91	-7.1%
Magnetic Resonance Imaging (MRI)	94	7	0	2	89	-8.5%
Positron Emission Tomography (PET)	2	0	1	2	3	50.0%
Single Photon Emission Computerized Tomography (SPECT)	16	2	0	13	27	68.8%
Other Services						
Renal Dialysis Services	17	2	2	2	15	-11.8%
Cardiac Catheterization Services	2	1	0	1	2	0%

Over the same time period, rural hospitals added outpatient psychiatric services and advanced diagnostic imaging services.

Source: MDH Health Economics Program analysis of hospital annual reports, October 2019; 2018 data is considered preliminary. Services are considered “available” when they are provided on site by hospital staff, on site through contracted services, or off site through shared services agreement. No rural hospitals had open heart surgery or organ transplant services available in 2009 or 2018.

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Nine Minnesota counties lost hospital birth services between 2003 and 2018



Increases in pre-term births have been associated with the loss of hospital birth services in rural areas.

Note: Due to a merger, the hospital in Mower was no longer an independent licensed entity as of the end of 2014; however birth services were offered at that site under the license of the remaining corporate entity.

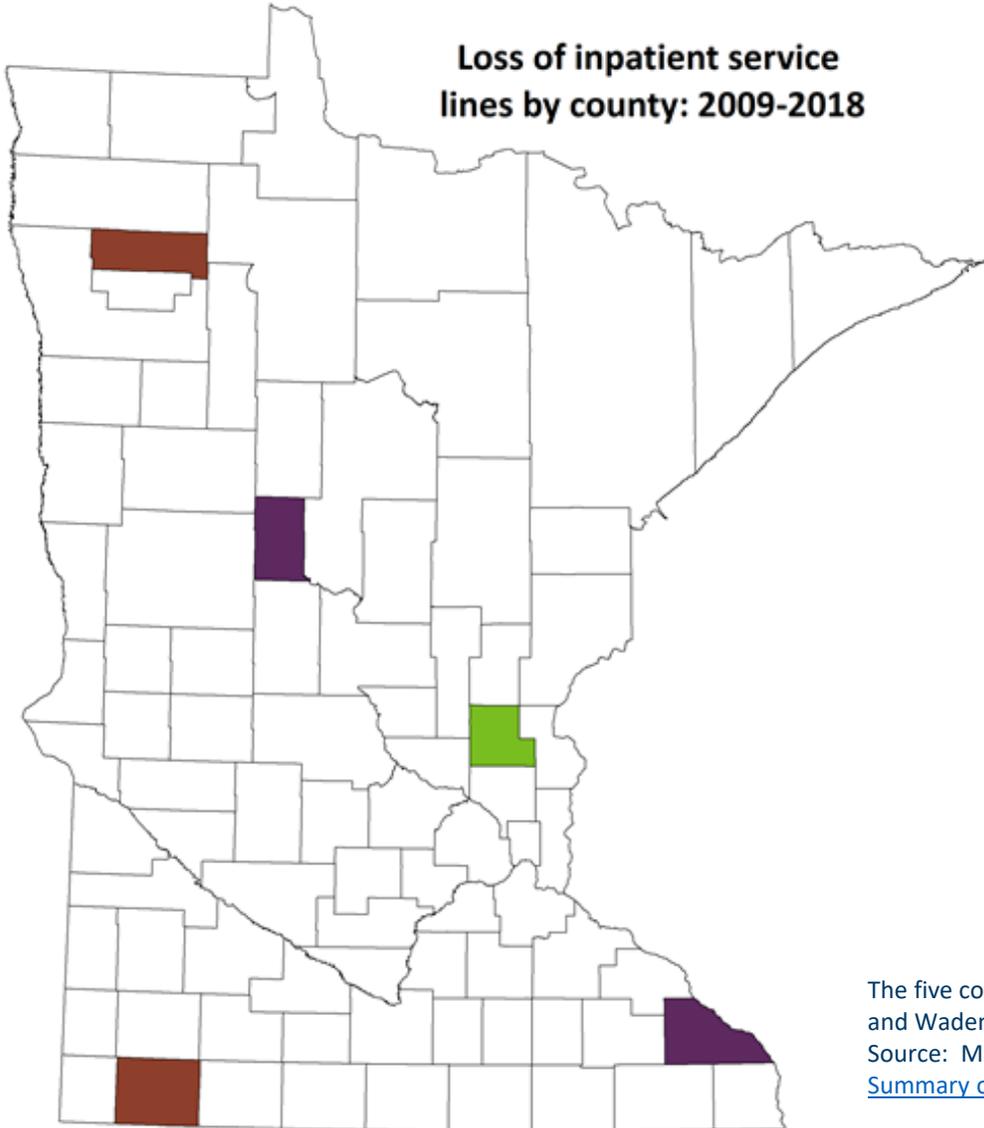
Source: Minnesota Department of Health, Health Economics Program Analysis of Hospital Annual Reports; U.S. Census Bureau (County Designations)

Definition: Community hospitals were categorized as not offering birth services if they did not have at least one routine birth, had no licensed bassinets, or stated that services were not available.

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Other counties lost inpatient cardiac, chemical dependency, and mental health services over the past decade

Loss of inpatient service
lines by county: 2009-2018



List of counties and inpatient services lost

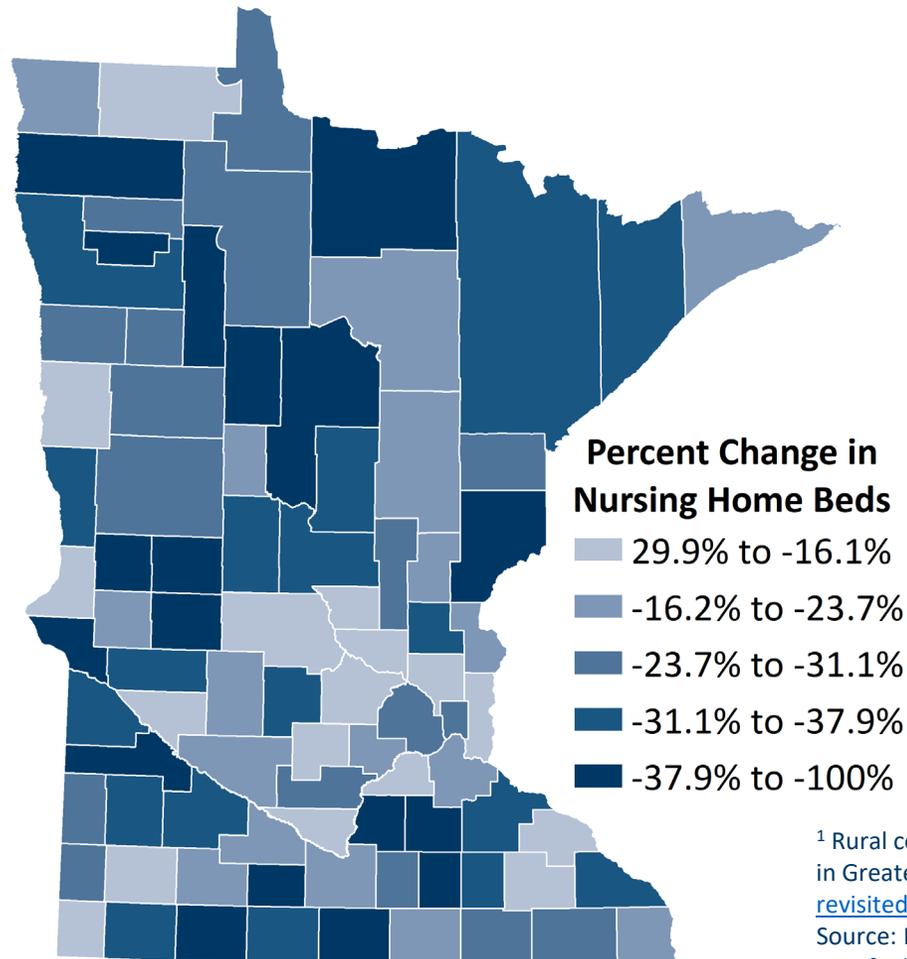
- Isanti – **chemical dependency services**
- Pennington and Nobles – **mental health services**
- Wadena and Winona – **cardiac services**

The five counties listed are classified as “urban/town/rural mix” (Isanti and Winona) or “town/rural mix” (Pennington, Nobles, and Wadena) by the Minnesota State Demographic Center. See [Greater Minnesota: Refined & Revisited](#).

Source: MDH Health Economics Program analysis of hospital annual reports, October 2019.

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The relative decline in nursing homes and nursing home beds was greater in rural Minnesota between 2003 and 2018



- Rural counties¹ have about 1/3 of all nursing homes, but accounted for over half of the closed nursing homes in the state between 2003 and 2018
- In total, rural counties¹ lost 21 nursing homes, and had a 33% decline in nursing home beds
- The nursing home population has been declining since 1995, with more options for long-term care, including home care and assisted living becoming more common.

¹ Rural counties are those that are either entirely rural, or a rural/town mix (49 counties), as defined by the Minnesota Population center in Greater Minnesota: Refined and Revisited (<https://mn.gov/admin/demography/reports-resources/greater-mn-refined-and-revisited.jsp>), page 33.

Source: Minnesota Department of Health, Health Economics Program analysis of 2003 and 2018 Directory of Registered, Licensed and/or Certified Health Care Facilities and Services (<https://www.health.state.mn.us/facilities/regulation/directory/docs/2018mdhdirectory.pdf> for 2018 report).

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Health Care Use in Rural Minnesota

What is the health status of people in rural Minnesota?
What are the barriers they face to receiving health services, and what are their health outcomes?

Key points – Health care access and use

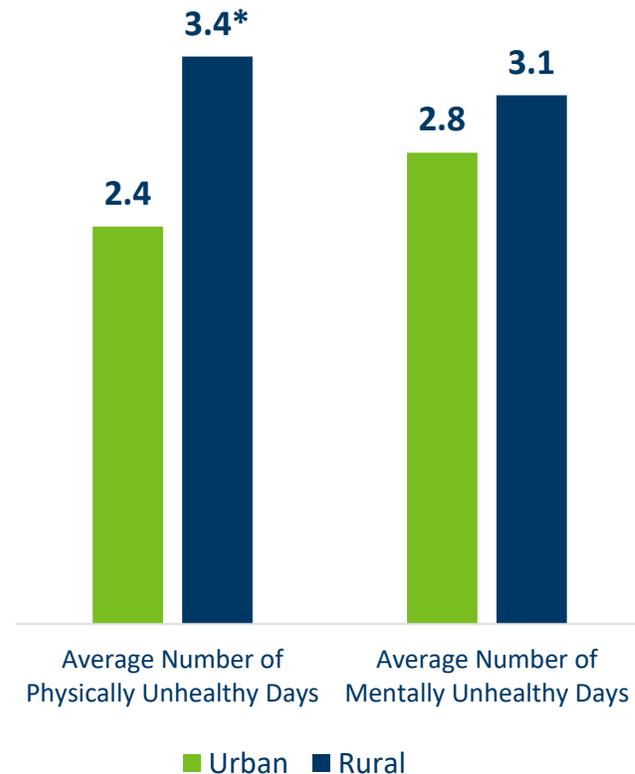
- Rural Minnesotans have more chronic conditions, report poorer health status, and experience higher rates of frequent mental distress and suicide.
- They also have to travel farther to receive inpatient health care services - especially mental health and obstetrics services.
- Rural Minnesotans are more likely to have problems accessing all types of providers, and getting appointments with primary care providers when needed.
- Primary care providers work to fill “gaps” in care, especially in mental health, obstetrics, and pediatric care.
- Rates of adolescent mental health screening are lower in rural areas, and there are higher rates of opioid prescribing.

How Minnesotans access health care services

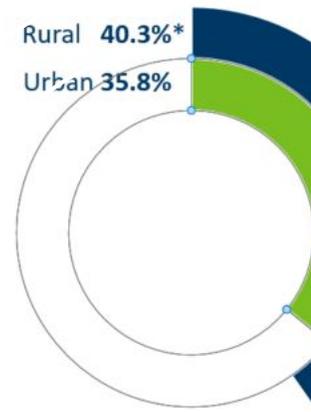
- In aggregate, Minnesota spent \$51.3 billion on health care in 2017, 1/3 of the spending - \$16.8 billion – was at hospitals.
- Most Minnesotans – 93.7% – use health insurance to help pay for health care services.
- Even with health insurance to help cover costs, many Minnesotans still face substantial health care costs – 19.8% of Minnesotans struggle with medical bills, and 21.1% forgo needed health care due to cost.

Rural residents report more chronic conditions, and more unhealthy days

Average Number of Unhealthy Days in Past 30 Days



Percent of Minnesotans with a Chronic Condition



- Minnesotans living in rural areas reported frequent mental distress at about the same rate (9.9%) as those living in urban areas (8.5%).¹
- Age-adjusted suicide rate in greater Minnesota (14.7) was higher than the 7-county metro area (12.0) for 2013-17.²

1 Source: Minnesota Health Access Survey, 2017. Urban and Rural defined based on RUCA zip-code approximations.

*Indicates significant difference from Urban at the 95% level.

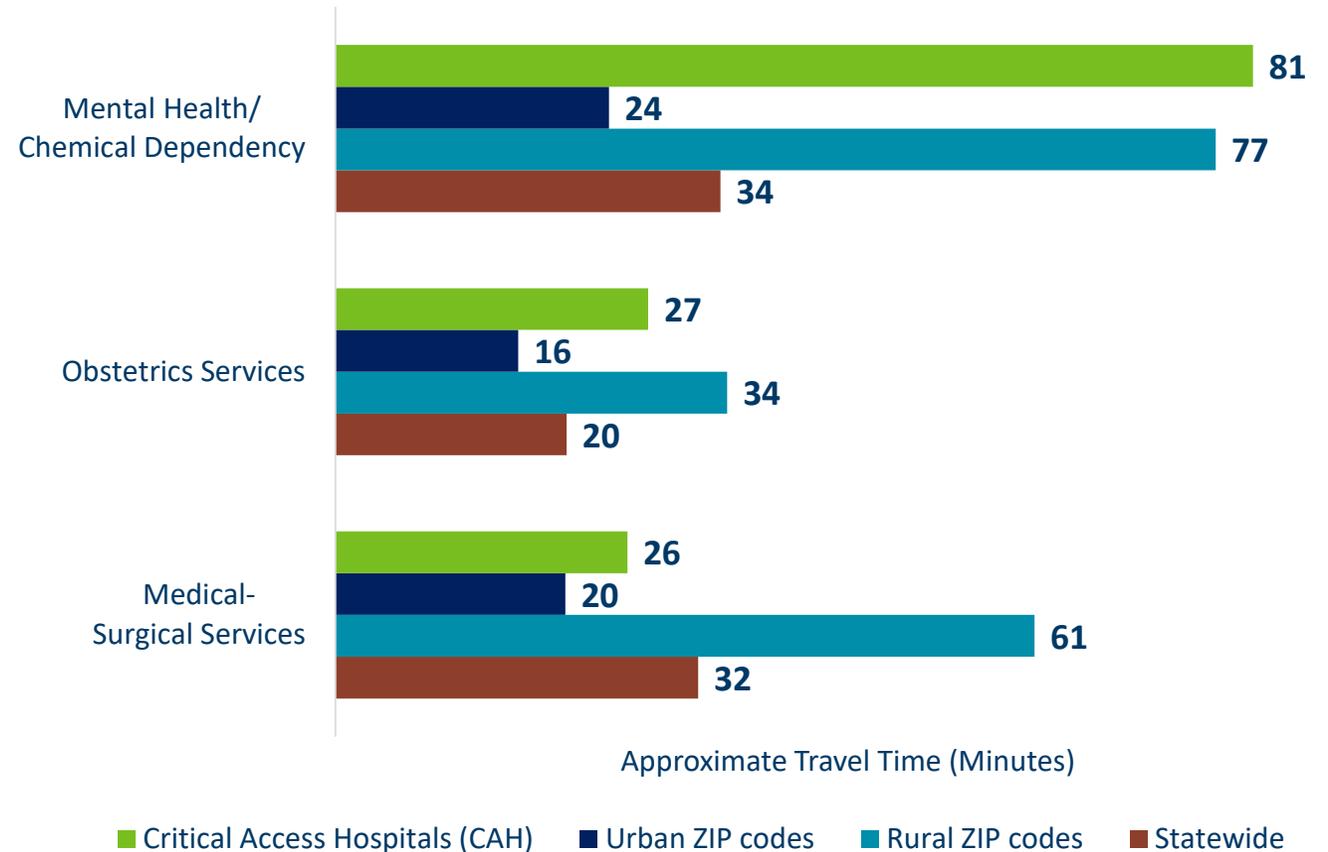
2 Source: 1999-2017: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death on CDC WONDER Online Database, released 2018.

<https://www.health.state.mn.us/communities/suicide/documents/2017suicidedatabrief.pdf>

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Minnesotans in Rural Areas have to travel longer to get inpatient services – especially mental health services

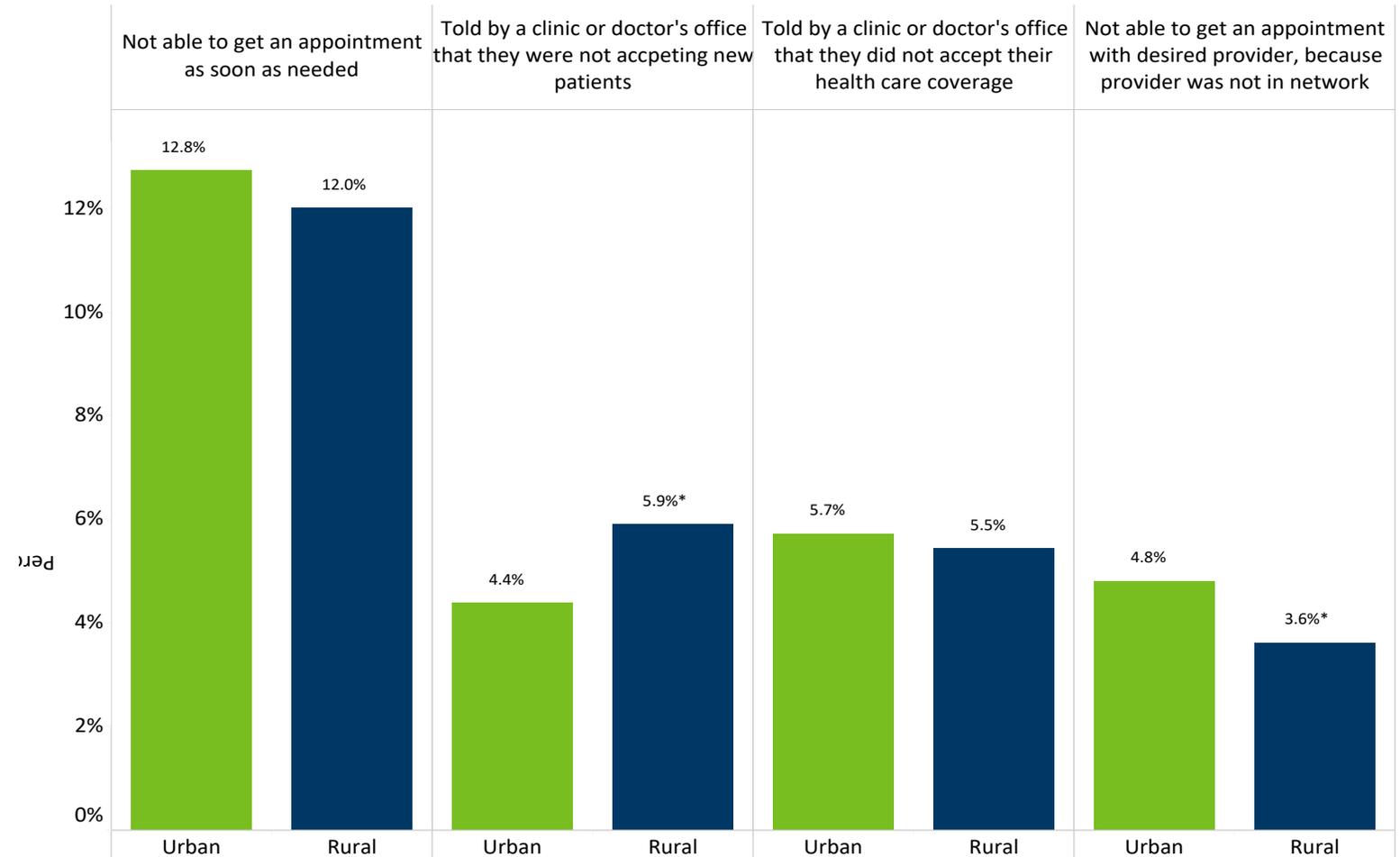
- Rural patients seeking inpatient mental health and chemical dependency treatment travel three times longer than urban patients.
- Patients receiving medical/surgical care at Critical Access Hospitals experience shorter travel times than those traveling to other types of hospitals



Source: MDH analysis of Minnesota hospital administrative (discharge) inpatient records for medical-surgical care, obstetrics care, and mental health or chemical dependency care for 2013 to 2017. The analysis calculated the distance between the geographic centroid of each ZIP code to respective hospitals and excluded hospital stays that were transferred to another hospital to avoid duplication. Patients with planned services, such as surgeries, may intentionally travel longer distances. Non-metropolitan ZIP codes are classified as 'rural' using RUCA.

Rural Minnesotans have more problems accessing providers

- Rural Minnesotans were more likely to be told that a clinic or doctor's office was not accepting new patients.
- They were less likely to have problems with providers not being in their network.



Source: Minnesota Health Access Survey, 2017

*Indicates significant difference from Urban at the 95% level.

Urban and Rural defined based on RUCA zip-code approximations.

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People in rural Minnesota had the most trouble getting primary care appointments as soon as they were needed

Among those who weren't able to get an appointment as soon as needed: Rural Minnesotans were more likely to say they couldn't get an appointment with a primary care provider as soon as they needed.



Source: Minnesota Health Access Survey, 2017

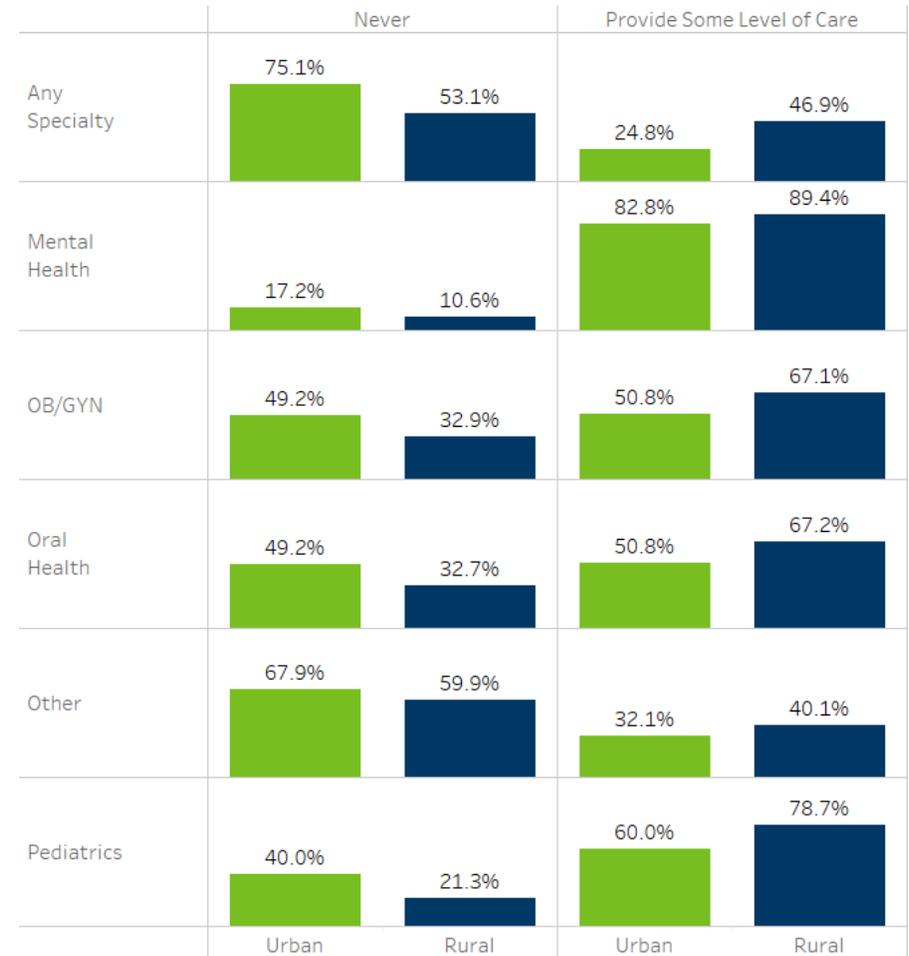
*Indicates significant difference from Urban at the 95% level.

Percentages for Type of Provider do not sum to 100 because respondents were able to select more than one type of provider. Urban and Rural defined based on RUCA zip-code approximations.

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Rural primary care physicians are more likely to fill gaps in care than their urban counterparts

- Rural physicians often fill gaps in care when there is a lack or absence in specialty providers to serve rural populations.
- In areas of Obstetrics/Gynecology, Oral Health, and Pediatrics, rural primary care physicians are 15% more likely to provide some level of care than urban primary care physicians.



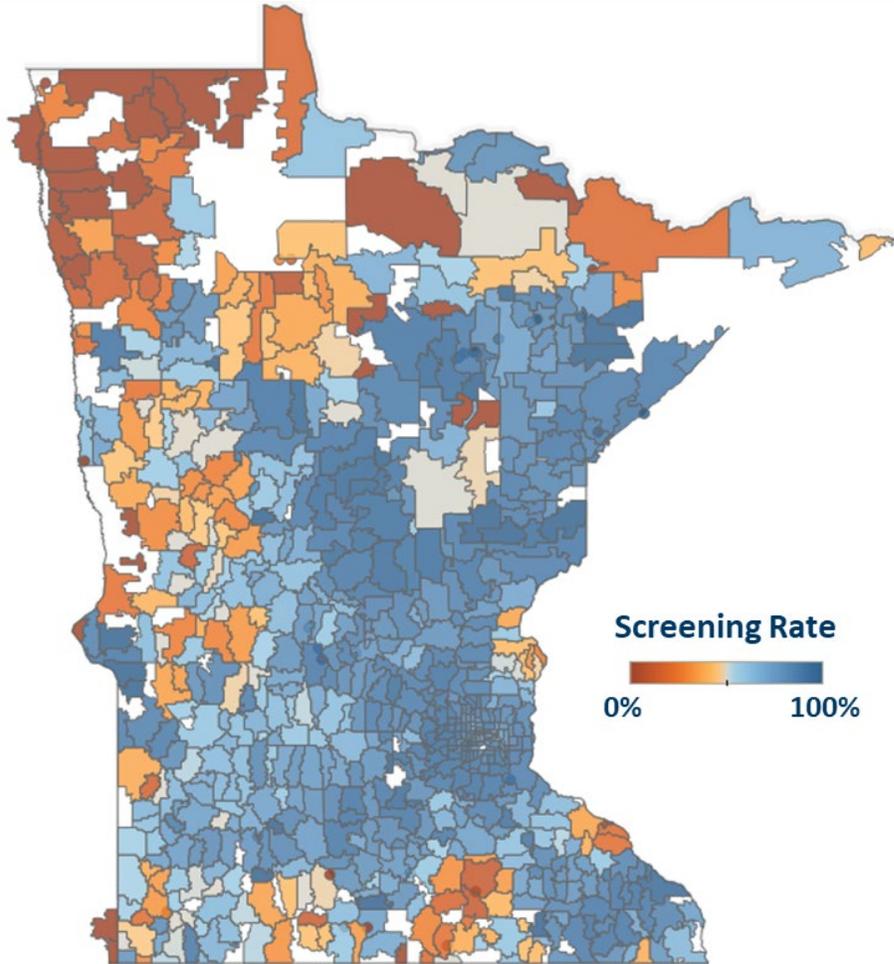
Source: MDH-ORHPC Physician Workforce Survey, 2018.

* Rural = isolated rural from Rural-Urban Commuting Area codes.

** The most common “other” specialties listed include dermatology; emergency medicine; and orthopedics.

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Fewer adolescent patients in rural areas are screened for mental health or depression problems

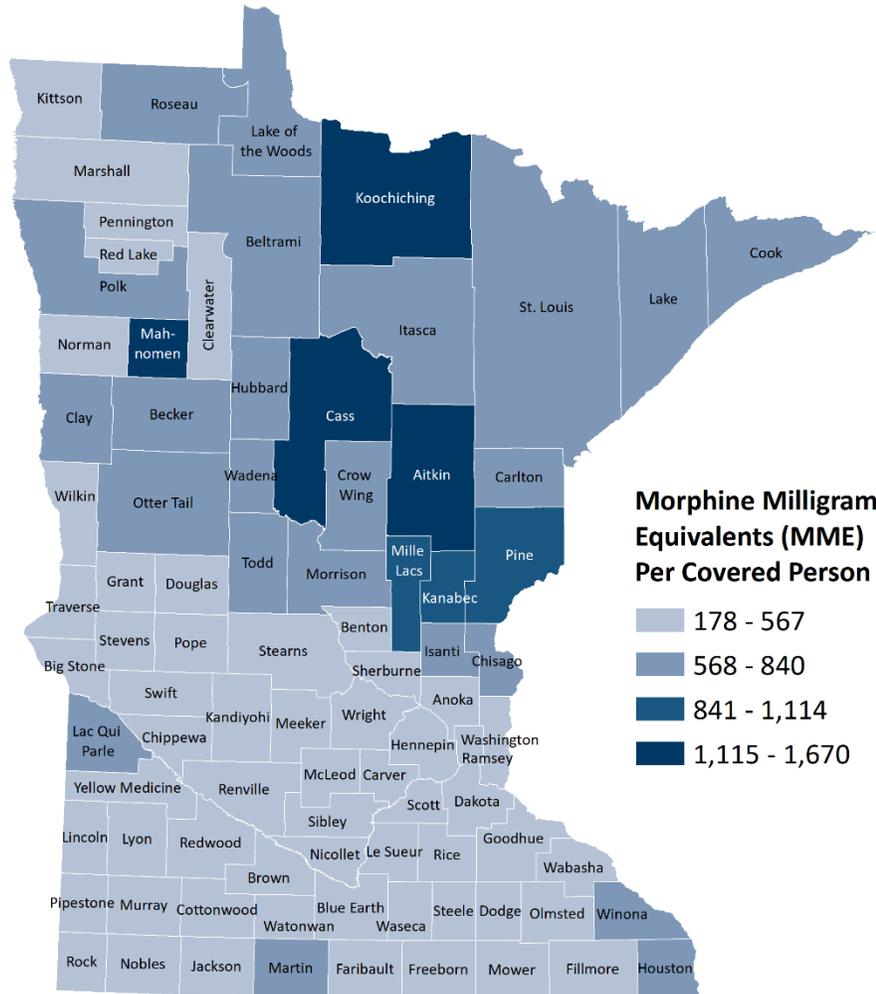


Geography	2017 Screening Rate
Metropolitan and Large City	86%
Small Rural Town	66%
Isolated Rural	70%
Statewide	83%

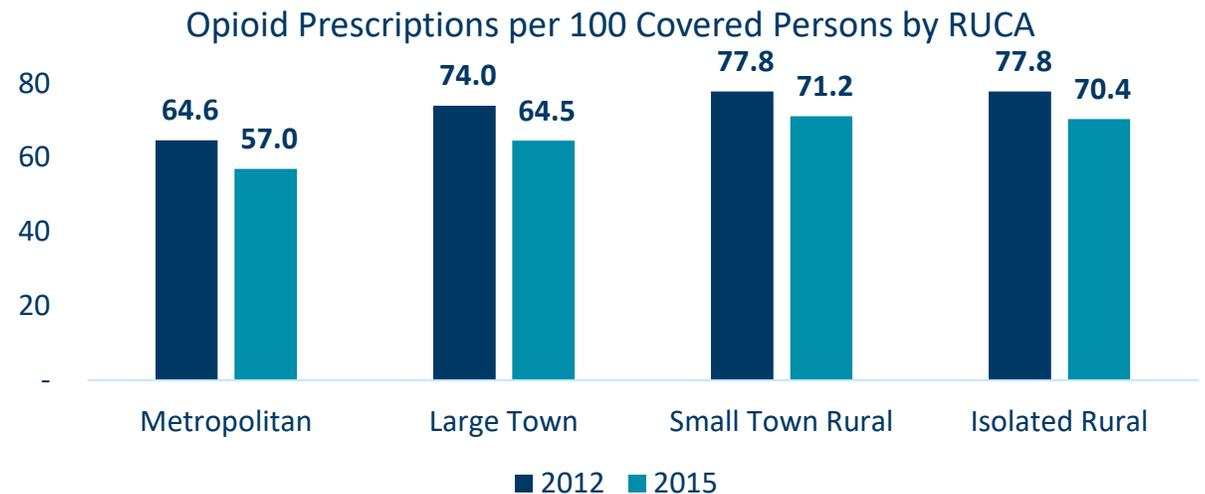
- Half of all mental health conditions begin by age 14.¹
- Early treatment may lead to better outcomes in the long term.

1. Kessler, et al. "Lifetime Prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication." Arch Gen Psychiatry, 2005 Jun; 62(6): 593-602.
Source: MDH Health Economics Program analysis of Adolescent Mental Health and/or Depression Screening data from the Minnesota Statewide Quality Reporting and Measurement System. Based on adolescent patients aged 12-17 who had at least one face-to-face well-child visit in a Minnesota clinic. White areas on the map had fewer than five patients for this measure.
US Preventive Services Task Force recommends mental health screening for all adolescents (see: [Final Recommendation Statement: Depression in Children and Adolescents: Screening](#) (2016), U.S. Preventive Services Task Force.
[Summary of Slide](#)

Prescription opioid use is higher in rural areas



- Prescription opioid use has declined over time – but is still higher in rural areas.
- Some counties in Northern Minnesota have especially high rates of prescriptions.



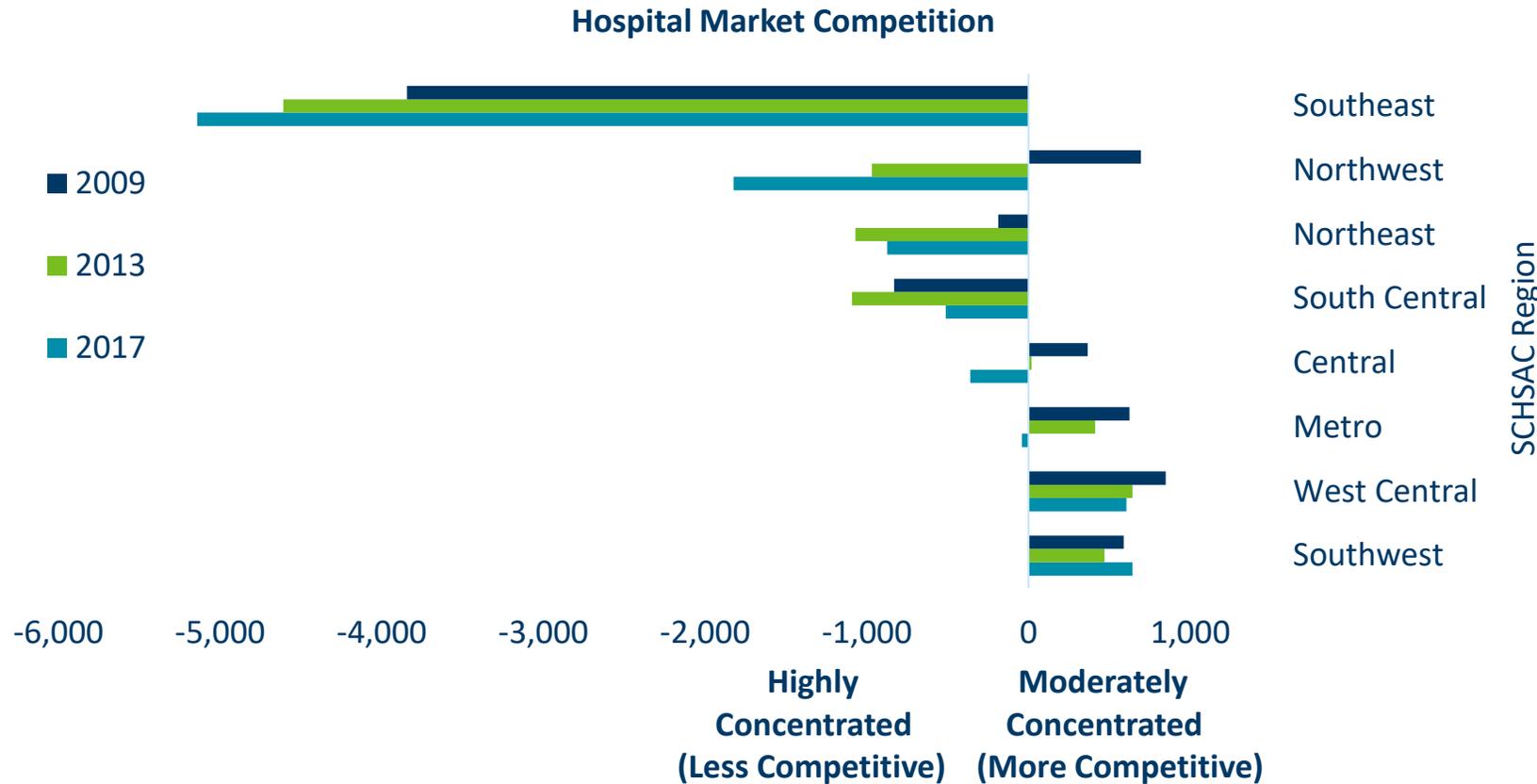
Financing

What level of competition do we see among rural health care providers?
Do we pay more for health care different in rural areas? How are providers doing financially?

Key points – Health care financing

- More and more rural hospitals are affiliated with larger hospital and provider systems.
- System affiliation is associated with higher net incomes for hospitals.
- Average per-person spending on health care is higher in rural Minnesota.
- Hospitals provide higher levels of community benefit relative to operating expenses.
- Community benefit in rural hospitals is more focused on keeping services available than providing charity care.

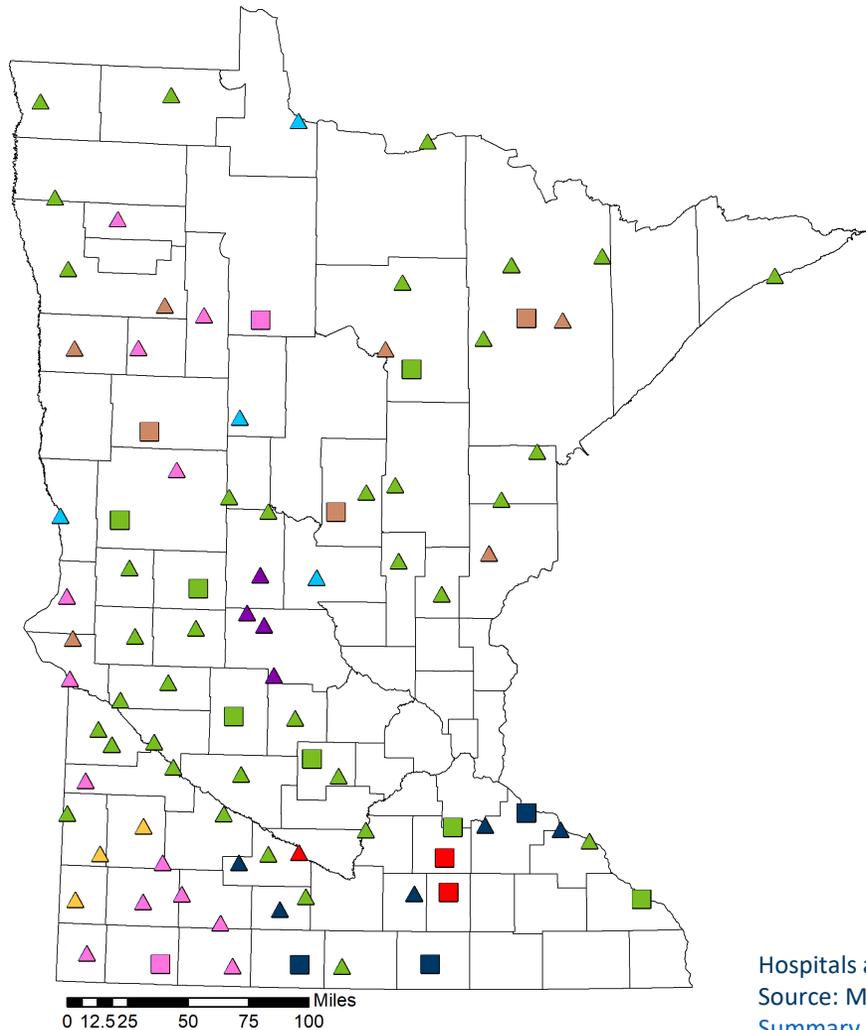
Hospital markets in Minnesota are not competitive



- Market concentration can lead to higher prices.
- Only two SCHSAC regions had moderately concentrated markets in 2017.

Source: MDH/Health Economics Program calculation of Herfindahl-Hirschman competition (HHI) index based on net patient revenue from Hospital Annual Report Data. Values in chart are subtracted from 2,500, or a highly concentrated market; positive values indicate a competitive market, negative values indicate a concentrated market. For more information on this index, visit the US Department of Justice website at www.justice.gov/atr/herfindahl-hirschman-index. SCHSAC Regions are defined on slide 6. [Summary of Slide](#)

Half of Minnesota's rural hospitals were affiliated with a larger provider group in 2017



	Total	Available Beds
Sanford Health	15	419
Essentia Health	9	335
Mayo Clinic	8	179
Catholic Health Initiatives	4	90
CentraCare Health System	4	95
Avera Health	3	80
Allina Health System	3	111
Unaffiliated or Single Rural Hospital in Hospital System	45	1,307
Total	91	2,616

▲ Critical Access Hospital ■ Non-Critical Access Hospital

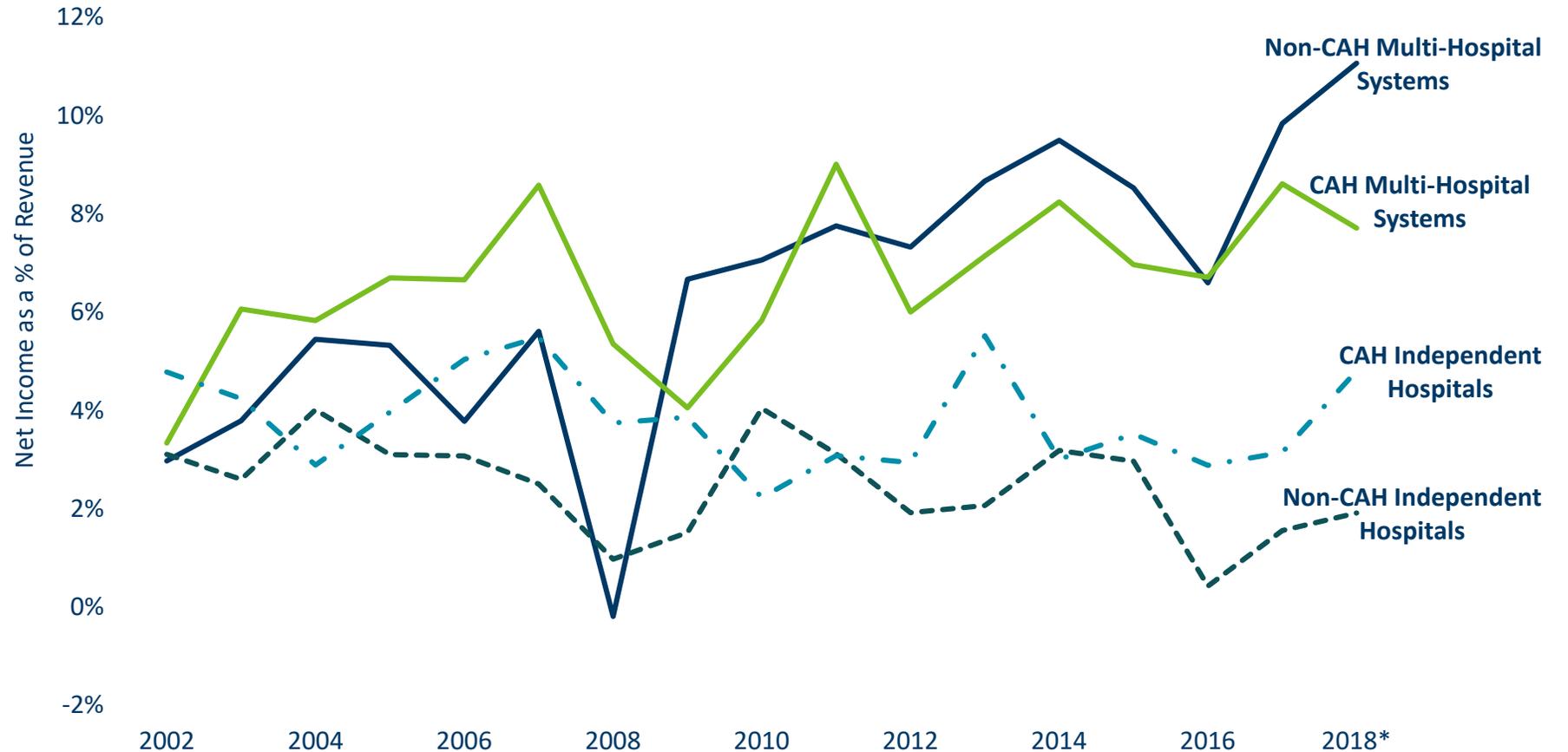
Hospitals that are part of larger systems:

- May offer increased access to specialty services only available in urban areas;
- May increase financial viability; and
- Lead to consolidation of services to fewer hospitals, meaning some services may be less available in rural areas.

Hospitals are classified based on RUCA census tracts. Health care systems are ordered by total number of hospitals in descending order.
 Source: MDH Health Economics Program analysis of hospital annual reports, October 2019.
[Summary of Slide](#)

Hospitals that are part of larger systems have higher net income

- Critical Access Hospitals (CAHs) that are part of multi-hospital systems have higher net incomes;
- Independent Hospitals that are not Critical Access Hospitals (CAHs) have the lowest net incomes



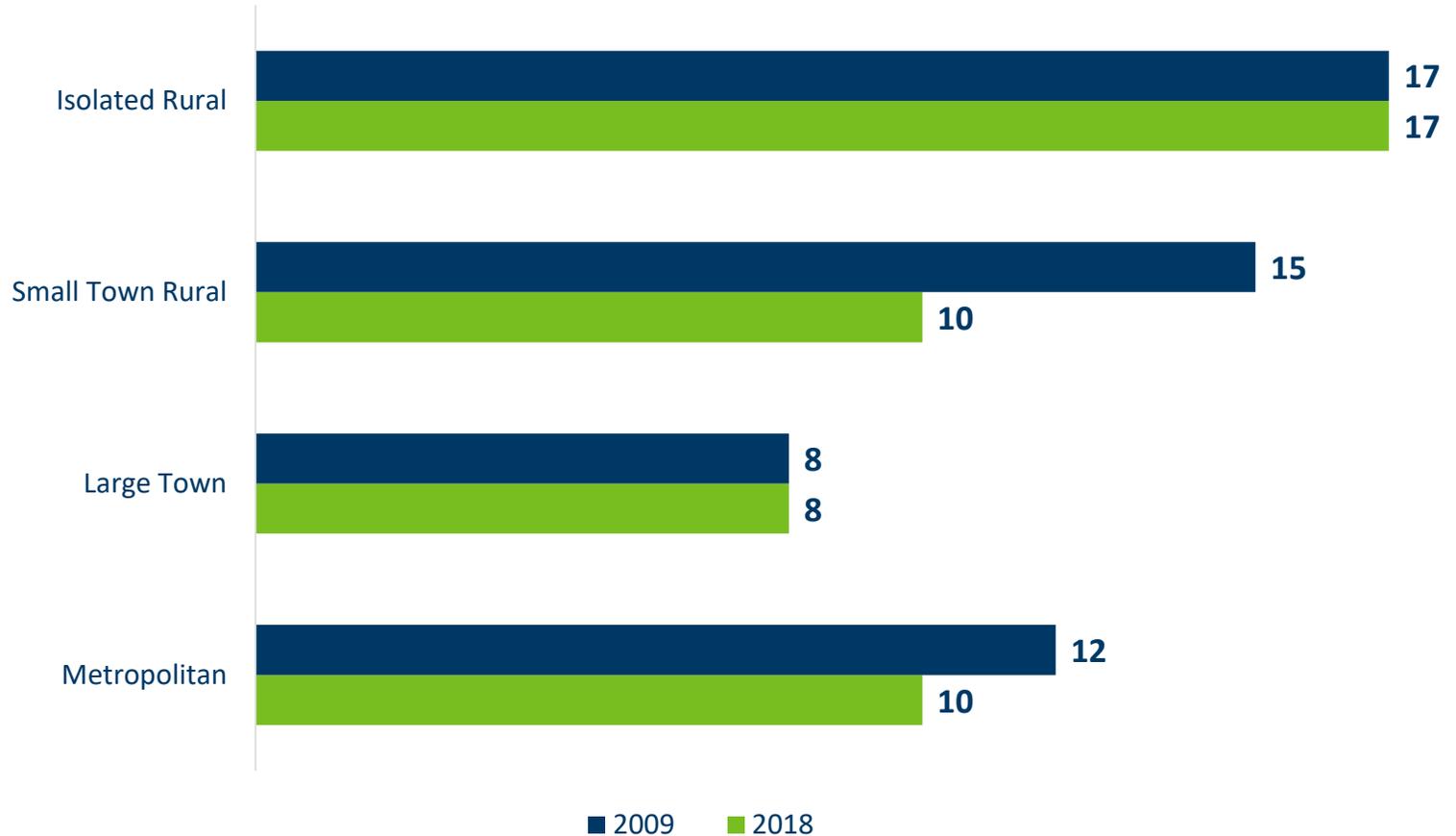
*Preliminary data.

Source: MDH Health Economics Program analysis of hospital annual reports, October 2019.

[Summary of Slide](#)

Small town rural areas have seen most of the decline in nursing homes attached to hospitals in the past 10 years

- Four of the closed nursing homes were associated with Critical Access Hospitals.
- Having nursing home services attached to hospitals may lead to more days at home for patients;
- However, it may cause financial strain for hospitals if nursing homes are operating at low capacity.



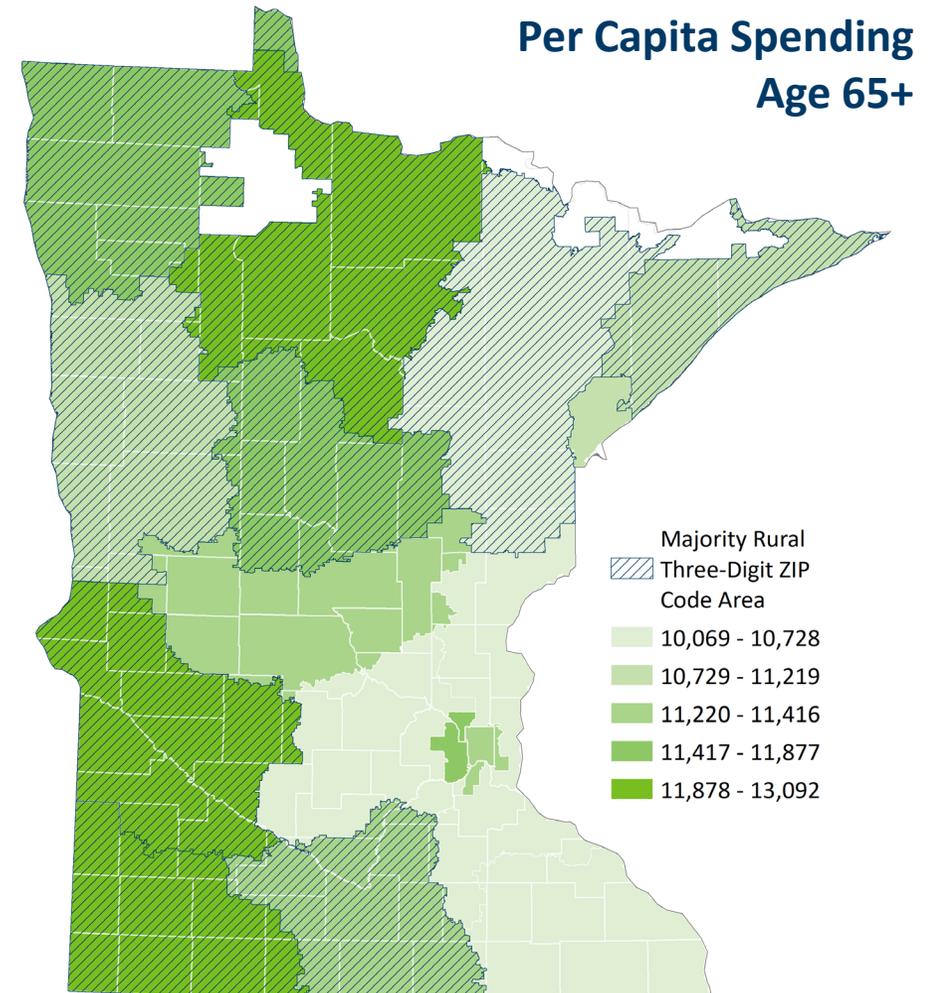
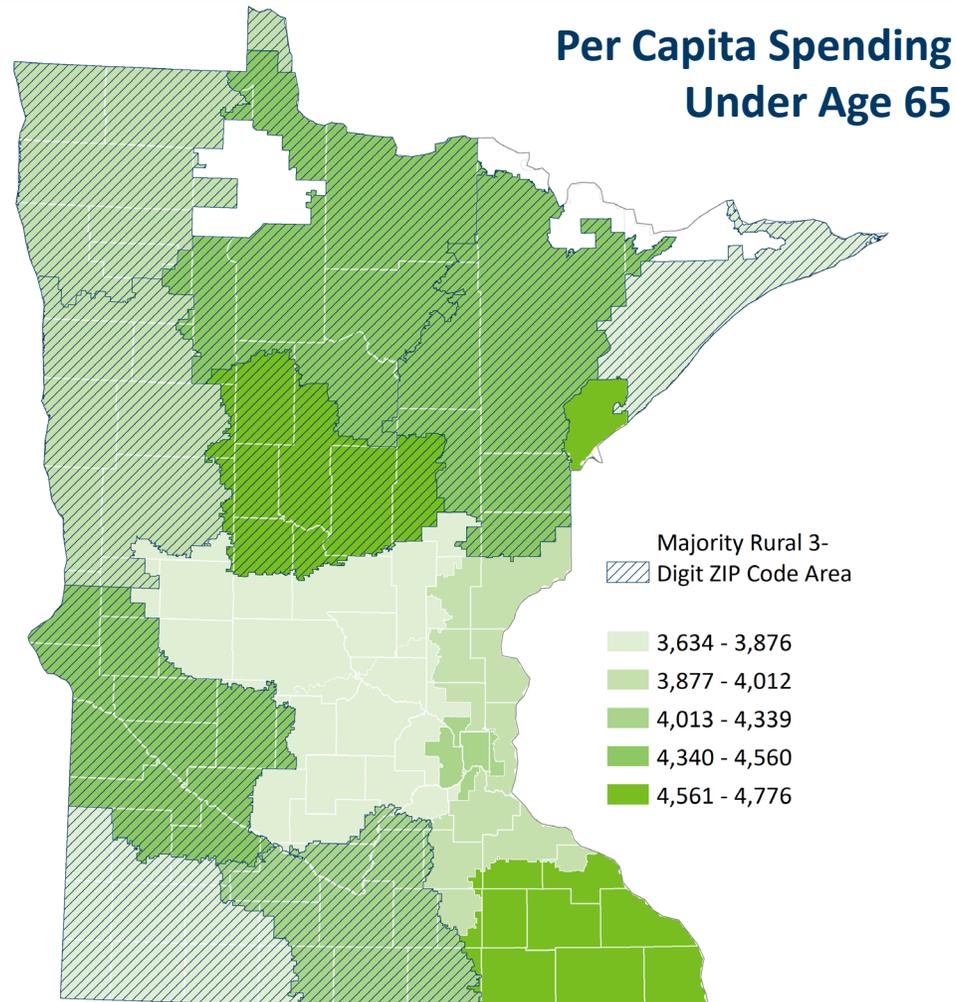
Note: 2018 data is preliminary and is based on charges for nursing homes reported by hospitals. Urban and Rural defined based on RUCA Category A designation.

Source: MDH Health Economics Program analysis of hospital annual reports, October 2019.

[Summary of Slide](#)

We spend more per-person on medical care in rural areas

- Rural per capita spending is greater than urban areas for all age groups.
- However, spending varies by region and age group.
- This analysis does not include prescription drug spending.



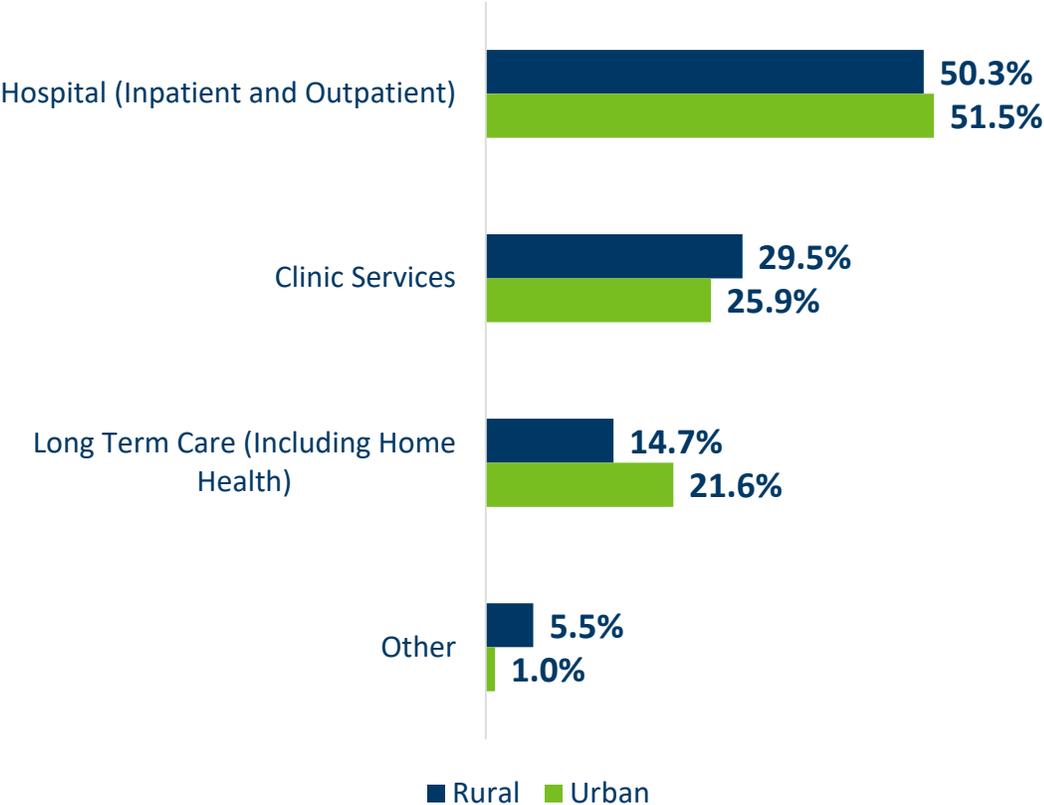
Source: MDH Health Economics Program analysis of All Payer Claims Database Public Use Files (2014) and population data from the American Community Survey Five-Year 2013-2017 Estimate, October 2019.

Note: spending is not age-adjusted and is simply stratified by age group (over age 65 and under age 65). Spending does not include retail prescription drugs.

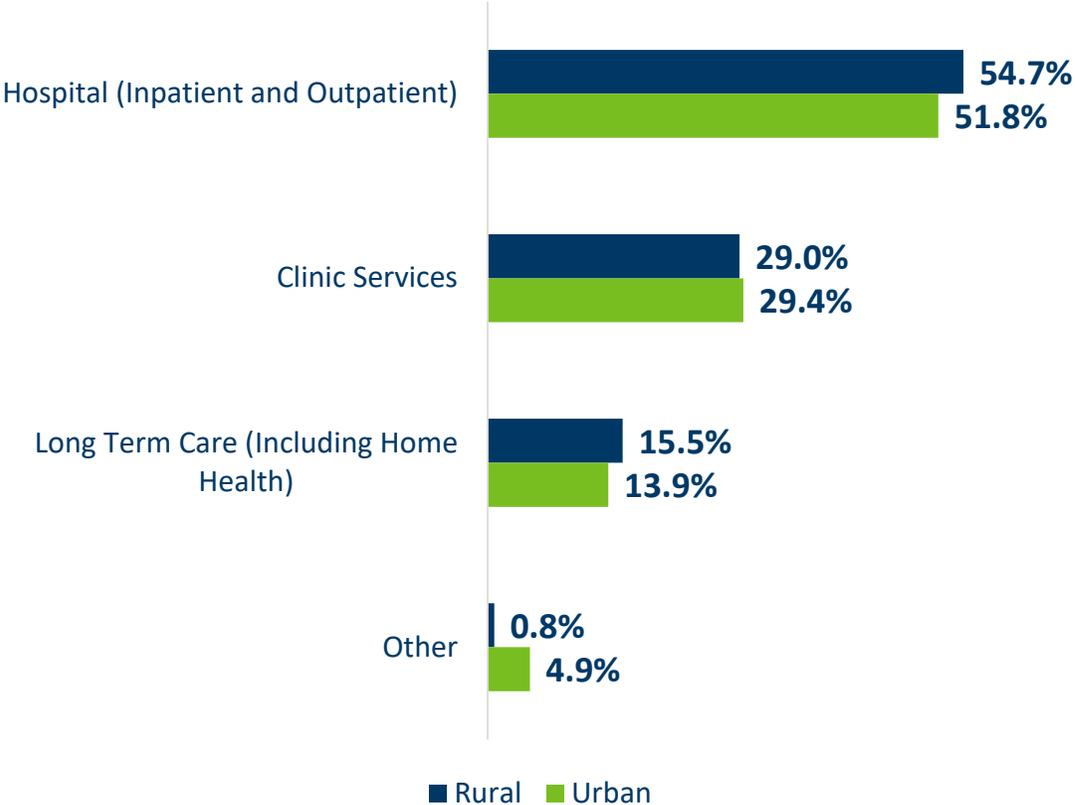
[Summary of Slide](#)

Most spending is for hospital inpatient and outpatient services

Major Spending Category Distribution for Under Age 65



Major Spending Category Distribution for Ages 65+



Source: MDH Health Economics Program analysis of All Payer Claims Database Public Use Files (2014) and population data from the American Community Survey Five-Year 2013-2017 Estimate, October 2019. Note: this does not include retail prescription drugs.

Rural hospitals rely more on Medicare than their urban counterparts

	Critical Access Hospitals		Rural, Non Critical Access Hospitals		Statewide Community Hospitals	
	2009	2018 ¹	2009	2018 ¹	2009	2018 ¹
Medicare	41.1%	44.9%	32.8%	36.3%	29.5%	32.5%
State Public Programs²	9.6%	12.3%	11.5%	11.8%	12.1%	13.2%
Private Insurance	42.2%	38.3%	49.0%	46.8%	52.4%	50.1%
Self-Pay	4.1%	2.8%	4.5%	2.9%	3.7%	2.7%
Other Payers	3.1%	1.7%	2.2%	2.4%	2.3%	1.6%
Hospital Patient Revenue, All Payers	100%	100%	100%	100%	100%	100%

¹2018 data is preliminary

²Includes Medical Assistance and MinnesotaCare.

Percent shown is a percent of Hospital Patient revenue.

Source: MDH Health Economics Program analysis of hospital annual reports, October 2019.

[Summary of Slide](#)

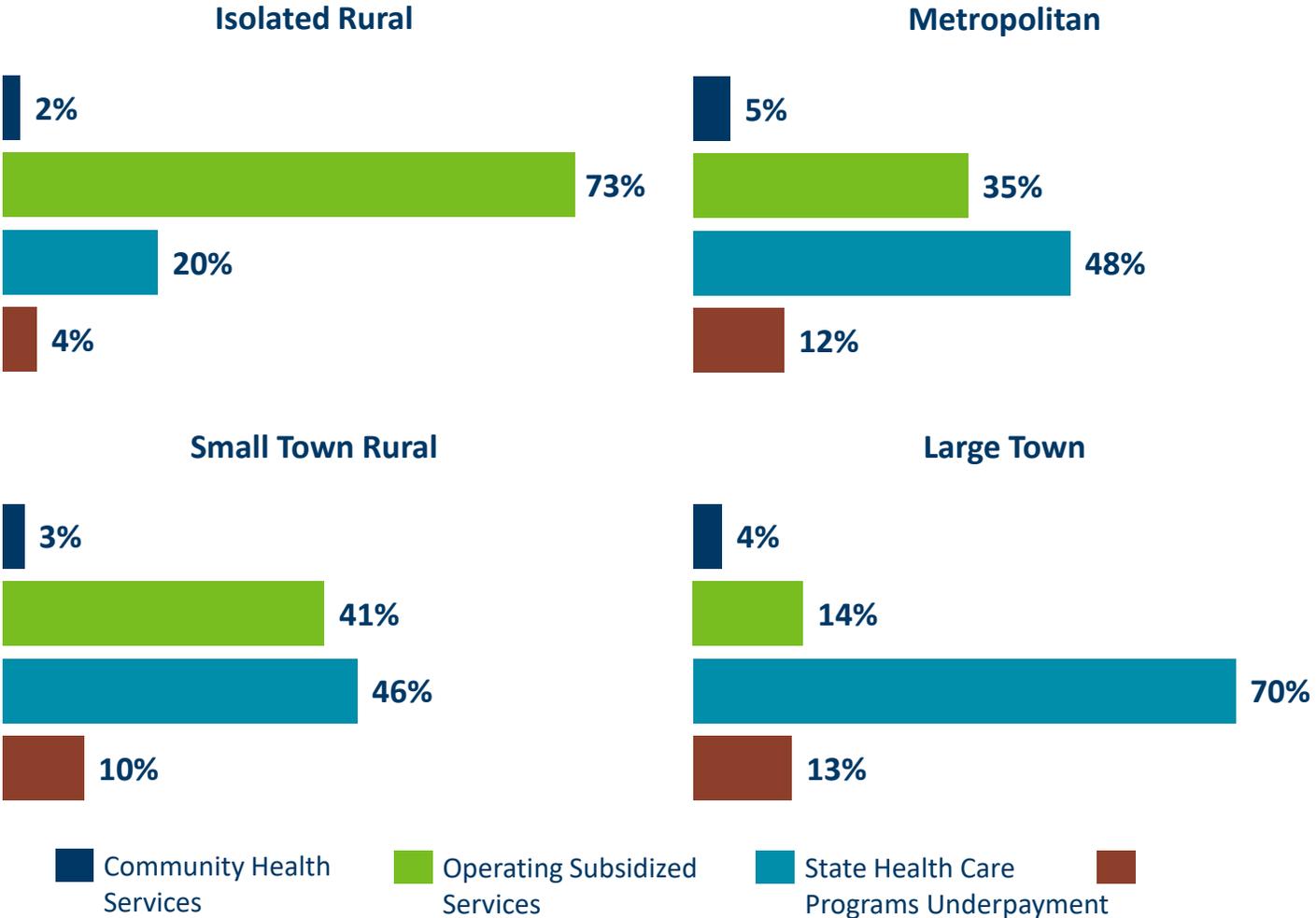
Rural hospitals devote a larger percent of operating expenses to community benefit

- Non-profit hospitals provide community benefit as part of their tax-exempt status.
- Community benefit spending can be categorized into four broad categories:
 - Direct patient care or unreimbursed services
 - Research and education
 - Financial and in-kind contributions
 - Community activities
- Most community benefit is in the “direct patient care” category

Percent of Operating Expenses Devoted to Community Benefit, by Hospital RUCA



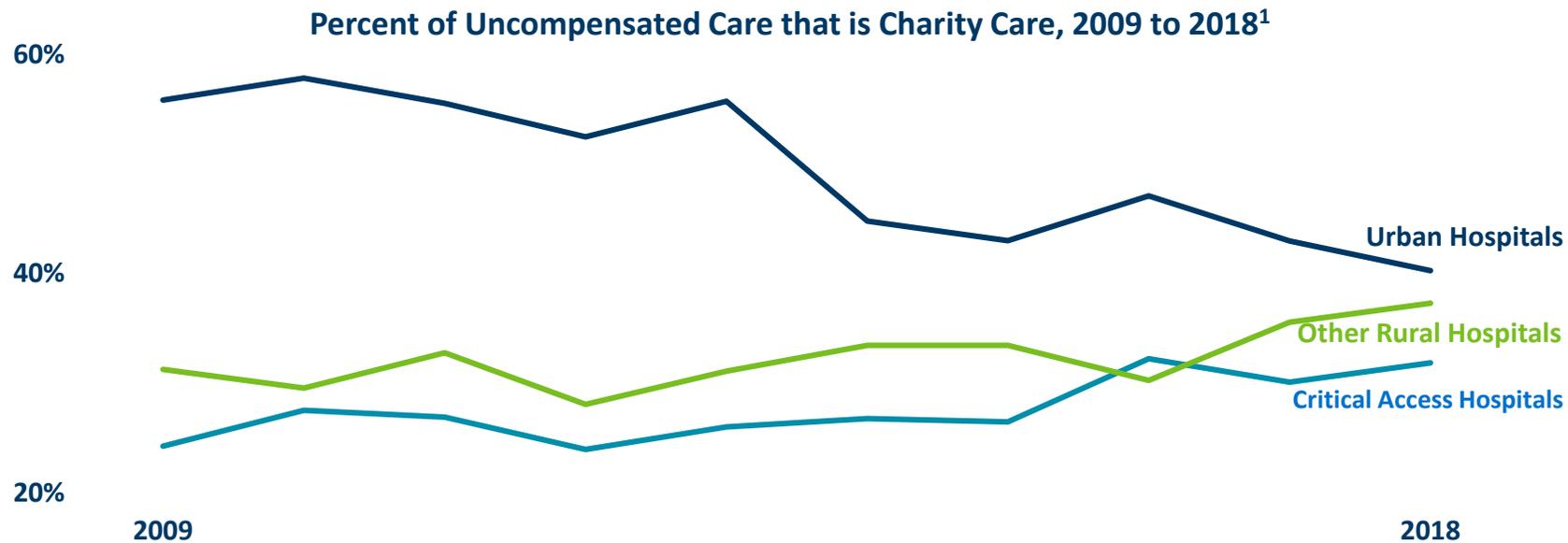
Community benefit for direct patient care is different across the state



- Isolated rural areas focus on operating subsidized services – such as keeping emergency rooms open and staffed;
- State health care programs underpayments – the difference between the cost of care provided to state program patients and the actual payment received – are greater in hospitals located in metropolitan areas, large towns, and small rural towns.

Source: MDH, Health Economics Program analysis of Hospital Annual Reports
[Summary of Slide](#)

Most uncompensated care in rural hospitals is bad debt



- The divide between rural and urban hospitals has been decreasing in the past 5 years, due to lower charity care at urban hospitals.
- Bad debt is not considered community benefit.

¹2018 data is preliminary
Source: MDH, Health Economics Program analysis of Hospital Annual Reports.
[Summary of Slide](#)

Health Care Transformation

Responding to the Challenges
Trends and Current Thinking in Minnesota

Key points – Health care transformation

- Transforming the health care delivery system and controlling costs while improving access and quality have presented a “wicked problem.”
- Minnesota is responding to this challenge by:
 - Using providers in emerging professions to create more access to care;
 - Leveraging broadband investments through telehealth to deliver expert and specialty care in areas with workforce shortages;
 - Tracking investments in primary care; and
 - Reforming mental health and substance use care systems to deliver more timely and comprehensive services to all in need.

Wicked problems & considerations

What makes it a wicked problem?

- Health care system is fractured—standard market principles don't apply
- One person's health expenditure is another's income
- Economics of low volume/high complexity/high cost care in rural areas
- The value of health is tough to quantify; savings are tough to earn and track
- Focus on medical care vs. health/well-being
- Rural health care facilities are an important part of the economic fabric and history of their communities

Considerations/Responses:

In response to greater patient demand for personalized, digitized and instantaneous value-based access to care:

- More clinics and clinicians are becoming certified as medical and behavioral health care homes;
- Telehealth is being more widely used;
- Efforts are underway to securely & meaningfully exchange health data; and
- Quality measurement and reporting are enhancing market transparency and driving health care quality improvement.

Payment reform and collaboration are leading to discussions of:

- Global budgeting to encourage focus on the needs of the whole community and whole patient, including population health goals; and
- New partnerships and collaboratives to share services when appropriate and create efficiencies.

Responding to rural health care needs

New and emerging health care roles

Changes in health care delivery have led to an evolution of existing roles and required new and emerging roles in order to meet:

- Shifts from volume to value-based care;
- Changes in cost centers from inpatient to outpatient care;
- Calls to improve patient experience and shared decision-making;
- Need for personalized care; and
- More options for provider-patient cultural concordance.

In Minnesota, emerging providers include Collaborative Practice Dental Hygienists, Community Paramedics, Community Health Workers, and Dental Therapists.

Emerging providers extend provider reach and access

New Role/Profession	Role/Need	Credential	Count
International Immigrant Medical Graduate (IIMG)*	Foreign-trained physicians who would like to bring their expertise to serve their new home, and want to become licensed as physicians, nurses or physician assistants.	License	168
Community Paramedic (CP)	A paramedic with additional training who delivers primary and preventive health care services, often in patients' homes and community settings, and connects patients to local community and public health resources.	Certificate	144
Dental Therapist (DT)	A mid-level oral health provider trained to provide both clinical and therapeutic care as part of the dental team in clinic and non-clinic settings. Dental therapists are required to serve the uninsured, underinsured and underserved.	License	100
Community Health Worker (CHW)	A frontline public health worker who is a trusted member of the community and serves as a liaison to community, health and social services to ensure culturally competent delivery of services and increase access.	Certificate	700+
Peer Recovery Support Specialist	Provide support for recovery from substance use or co-occurring mental health disorders based on their own lived experience with substance use, recovery strategies and skills.	Certified	227
Collaborative Practice Dental Hygienist (CPDH) β	A dental hygienist authorized to provide preventative oral health care in non-clinic settings.	License	< 11% of licensed hygienists

* IIMG is not a new provider type. IIMG Assistance program began in 2015 to address barriers and explore pathways to integrate IIMGs into MN's health delivery system. IIMGs need to US MD license to practice.

λ Foreign credential evaluated for equivalence. US clinical skills assessment & foundational skills building assistance offered.

β Initially authorized as limited authorization for dental hygienist. 2017 amendment to CPDH – expands location, eliminated clinical requirements, general supervision, DAs can help.

Telemedicine use is growing in Minnesota, but overall use remains low

- Telemedicine is a strategy for addressing some provider shortages and improving access to care in rural areas.
- In Minnesota, from 2010 to 2015, telemedicine services were primarily real-time provider-initiated services in non-metropolitan areas. This may have served to expand access to specialty services for patients enrolled in Medicare and Minnesota Health Care Programs.
- In 2015, over 50 percent of physician-provided telemedicine services in Minnesota were provided by psychiatrists.

Tracking primary care spending

Greater investments in primary care are associated with:

- Lower costs;
- Higher patient satisfaction; and
- Fewer ER visits.

As health care systems and payors recognize and acknowledge the benefits listed above, resources and budgets are being shifted to allocate more spending to preventive care and primary care.

In Minnesota, less than 14% of all commercial health care spending is on primary care.

Addressing Mental Health and Substance Use Disorder

Efforts are underway in Minnesota to move from “Rule 25” assessments by counties and tribes to providing “direct access” to publicly funded SUD treatment in order to:

- Minimize barriers;
- Ensure timely access to needed services; and
- Provide choice to continue Substance Use Disorder treatment services.

Efforts are also underway to address mental health needs which include:

- Increasing the capacity of inpatient psychiatric beds to provide the right level of care at the right time and in the right facility;
- Ensuring a successful return to the community by providing a continuum of care and services; and
- Developing new services to fill the identified gaps in the mental health care system.

Appendix of Data Sources Available Here:

www.health.state.mn.us/facilities/ruralhealth/docs/ruralhealthcbdata2019.pdf

Health Economics Program

www.health.mn.state.us/healthconomics

E-mail: health.hep@state.mn.us

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Publications: heppublications.web.health.state.mn.us/

Health Care Markets Chartbook:

www.health.state.mn.us/data/economics/chartbook/

Office of Rural Health and Primary Care

www.health.state.mn.us/facilities/ruralhealth/

E-mail: health.orhpc@state.mn.us

Phone: 651-201-3838

Publications:

www.health.state.mn.us/data/workforce/reports.html

A summary of the charts and graphs contained within is provided at

<https://www.health.state.mn.us/facilities/ruralhealth/docs/summaries/ruralhealthcbdata2019.html>

Direct links are listed on each page. If you need the information in a different format, please use the contact links above.