DEPARTMENT OF HEALTH

Rural Health Care in Minnesota: Data Highlights

Division of Health Policy

November 16, 2023

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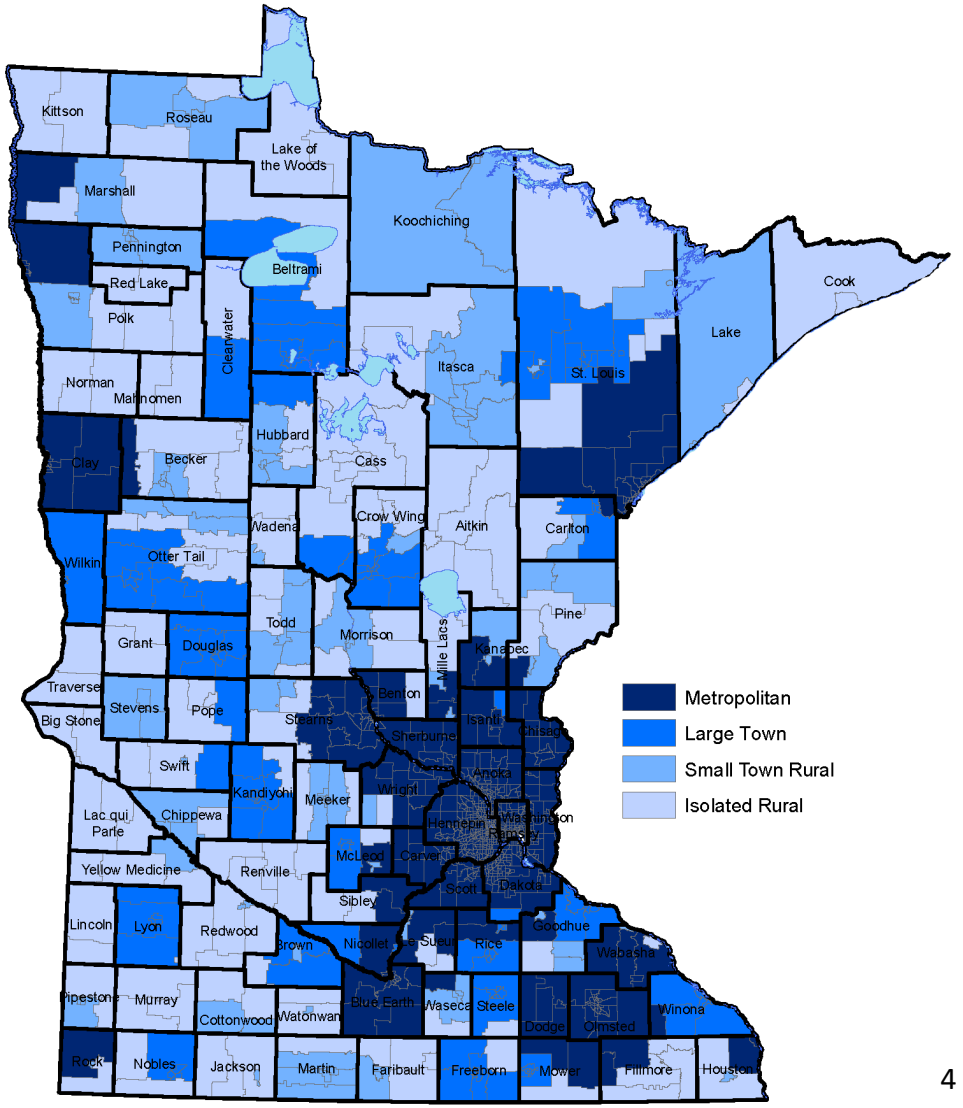
Technical notes

- A summary of all data sources and notes are available here: https://www.health.state.mn.us/facilities/ruralhealth/docs/summaries/rhcmnsum.pdf
- There are a number of ways to report on rurality and geography. This chartbook uses the following 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)
    - Based on zip code, census tract, or county, as noted in each slide
  - State Community Health Services Advisory Committee (SCHSAC) regions
- 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/rhcmndata.pdf.
- Direct links are listed on each slide.

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

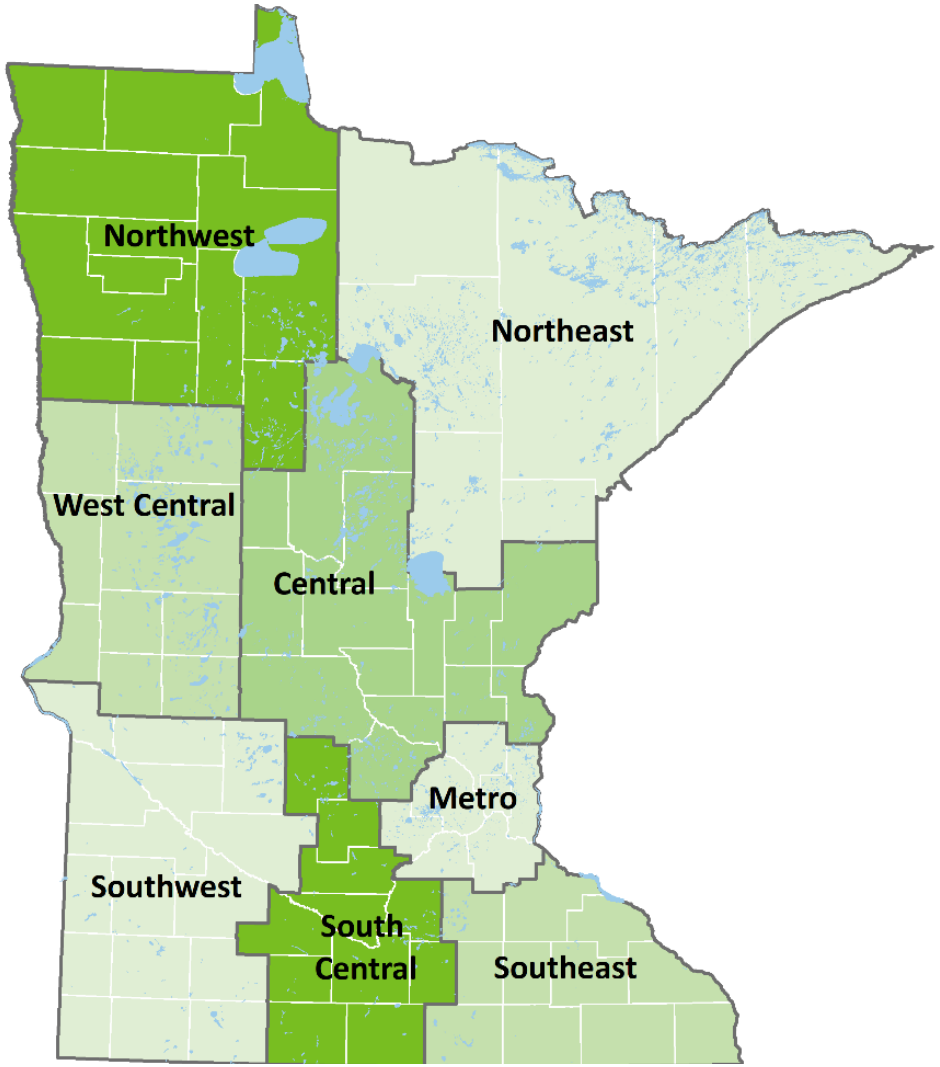
- Rural-Urban Commuting Areas or RUCAs are one of many ways to measure rurality.
- RUCAs take into account population density, urbanization and daily commuting patterns to identify urban and rural regions of the state.
- Current definitions are based on 2010 census data. More areas of the state became 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
- RUCA codes are based on zip code unless otherwise noted each slide.



Source: MDH. RUCAs were developed by the U.S. Department of Agriculture, Economic Research Service, and the University of Washington's WWAMI Rural Health Research Center. This map is based on census tract.

Summary of Slide

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.

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State of Rural Minnesota

What are the demographic characteristics of rural Minnesota?

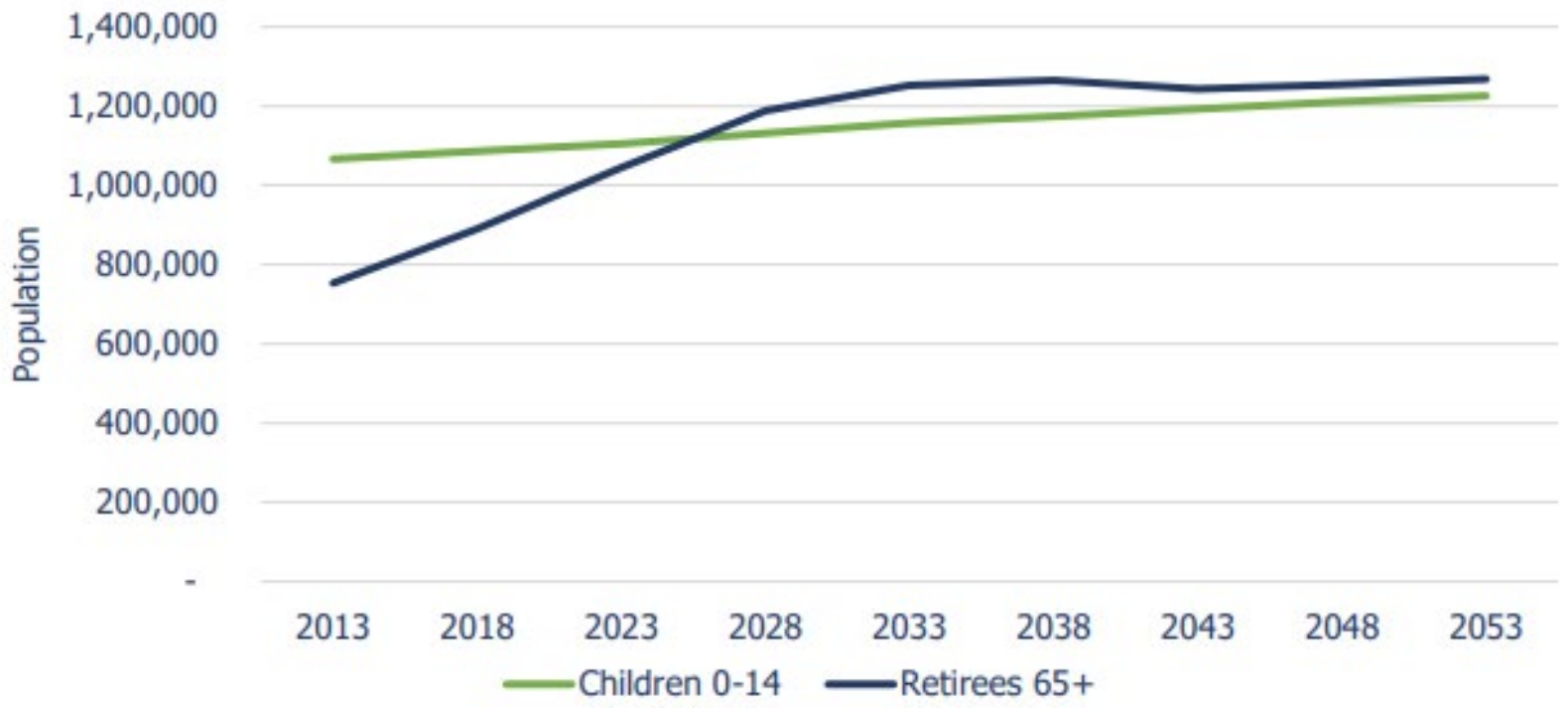
Key points – Minnesota rural demographics

- Minnesota is projected to gain nearly 850,000 residents between 2020 and 2070.
- Top 5 counties with the largest decline in population by 2050 will be Saint Louis (-12,400), Winona (-7,300), Martin (-3,800), Pine (-3,700), and Freeborn (-3,600).
- Minnesota's oldest residents, aged 85 and above, are expected to rapidly increase, reaching nearly 200,000 by 2075.
- Population growth in the state will be driven by communities of color.

Source: Minnesota Demographer's Office, https://mn.gov/admin/demography/data-by-topic/population-data/our-projections/

The population of Minnesota is aging

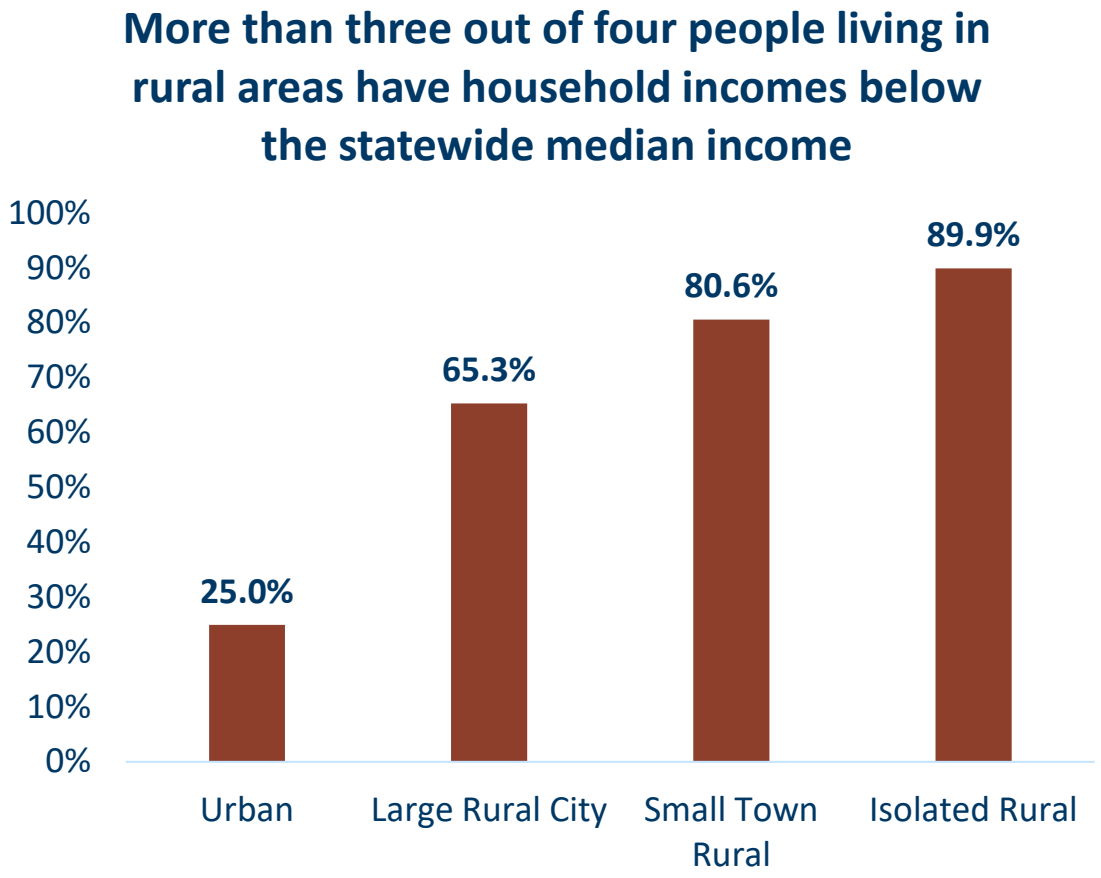
- Within the next decade, the total number of older adults (65+) is anticipated to outnumber children in Minnesota age 0 to 14.
- In 2033, 32% of residents of rural Minnesota counties are projected to be 65 years of age or older vs. 19% for urban counties.

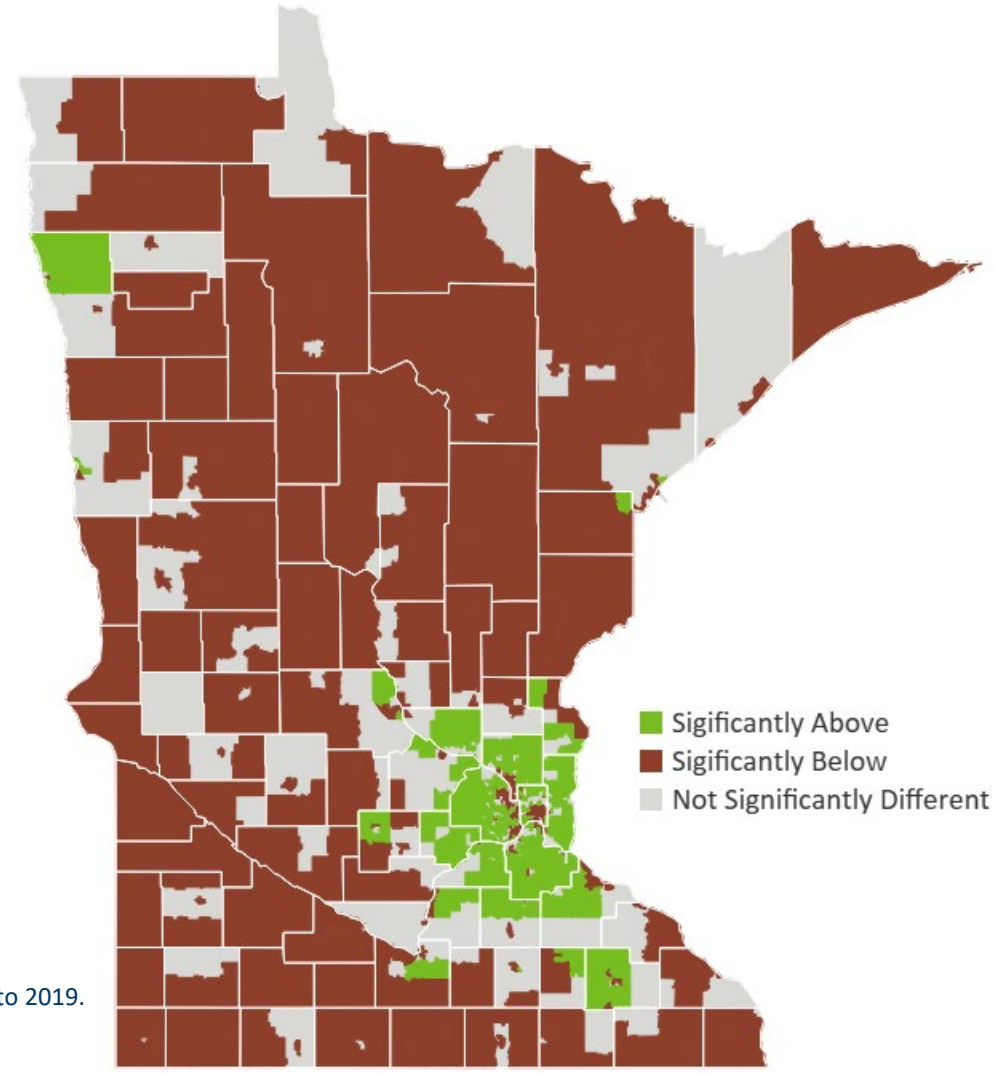


Source: Image is from Minnesota State Demographic Center, October 2020, Report: Long-Term Population Projections for Minnesota page 17. Data is from https://mn.gov/admin/demography/data-by-topic/population-data/our-projections/ (vintage February 2021).

Summary of Slide

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



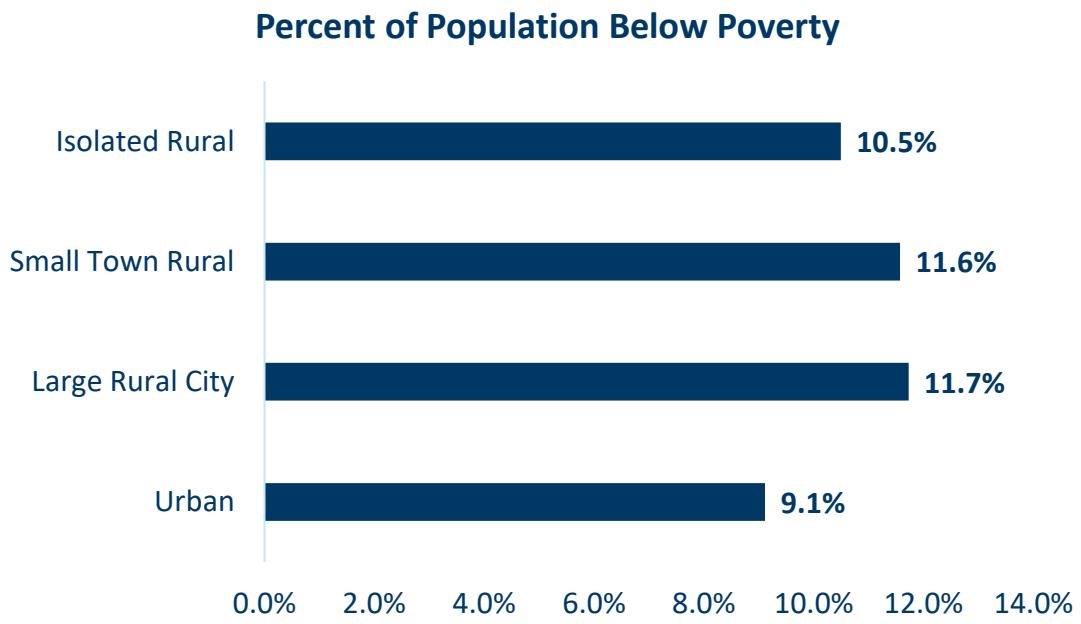


Source: MDH/Health Economics Program analysis of the American Community Survey Five-Year Estimate 2015 to 2019.
RUCA based on census tract

Summary of Slide

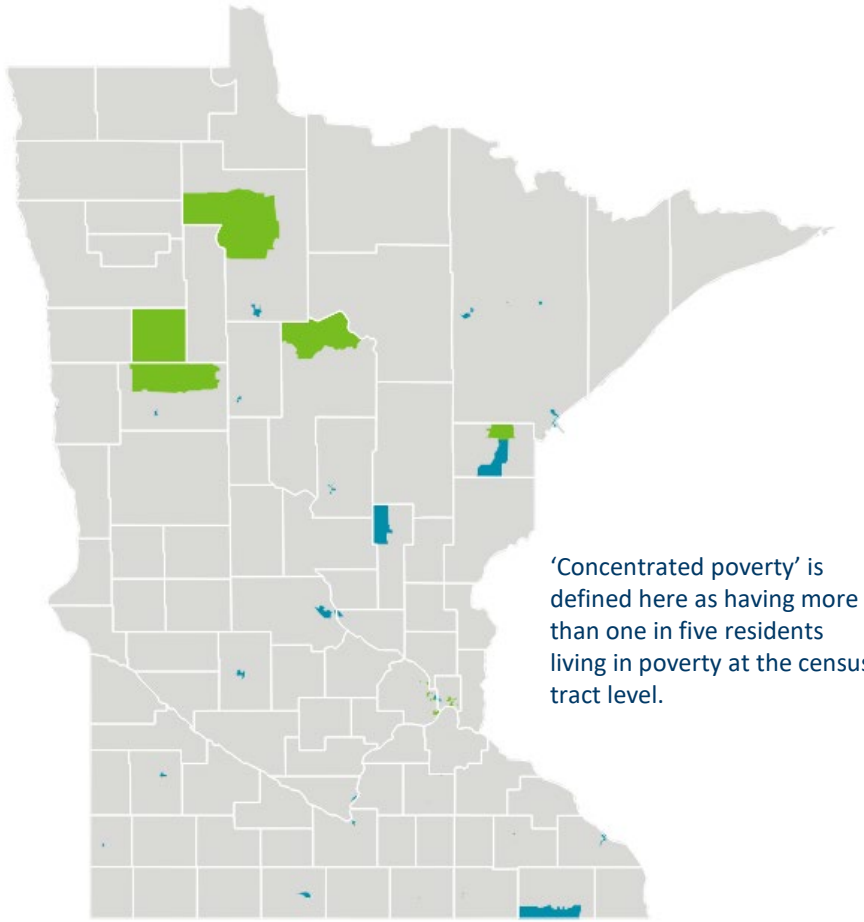
Areas of concentrated poverty occur in both rural and urban areas of the state

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 2015 to 2019. RUCA based on census tract

Summary of Slide



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

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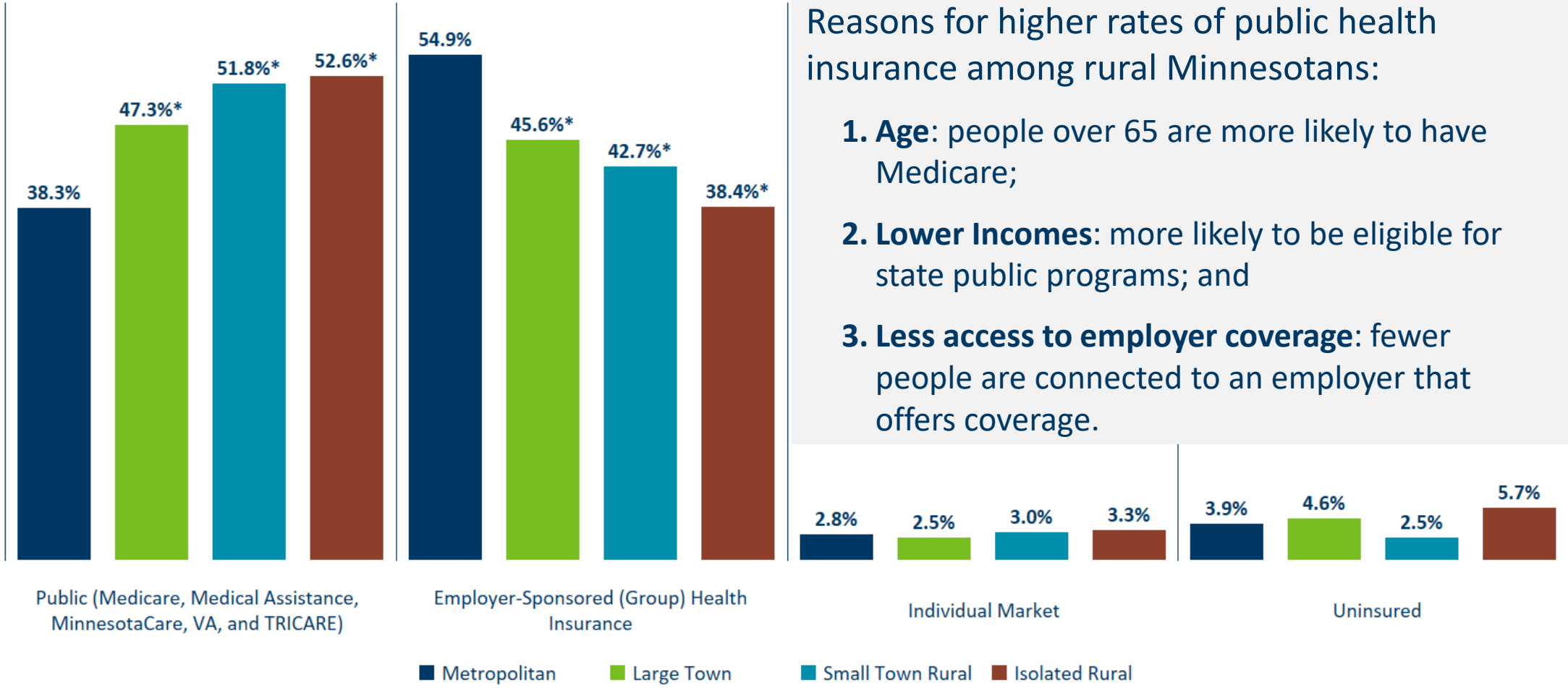
Structure of Rural Health System: An Overview

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

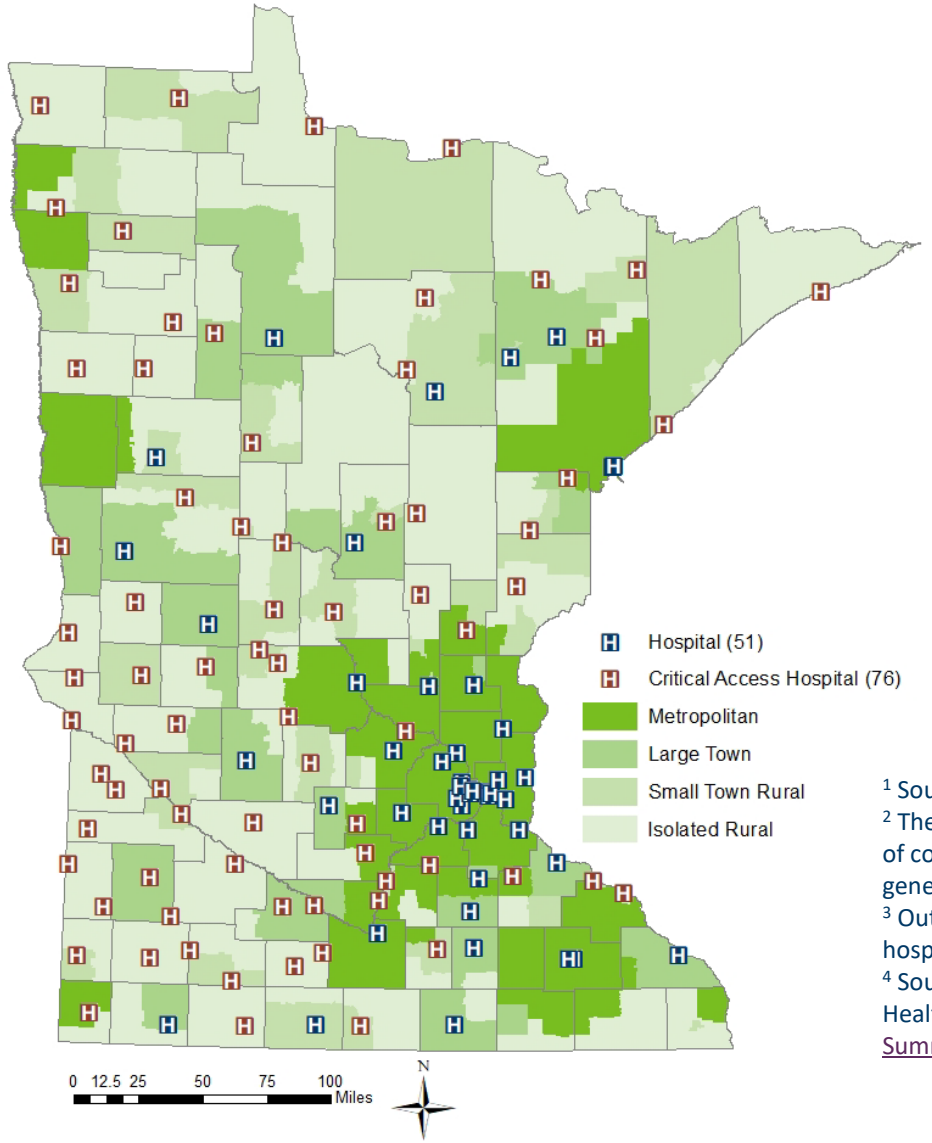


Reasons for higher rates of public health insurance among rural Minnesotans:

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, 2021; Geographies based on RUCA zip-code approximations.
*Indicates significant difference from Metropolitan at the 95% level.
Summary of Slide

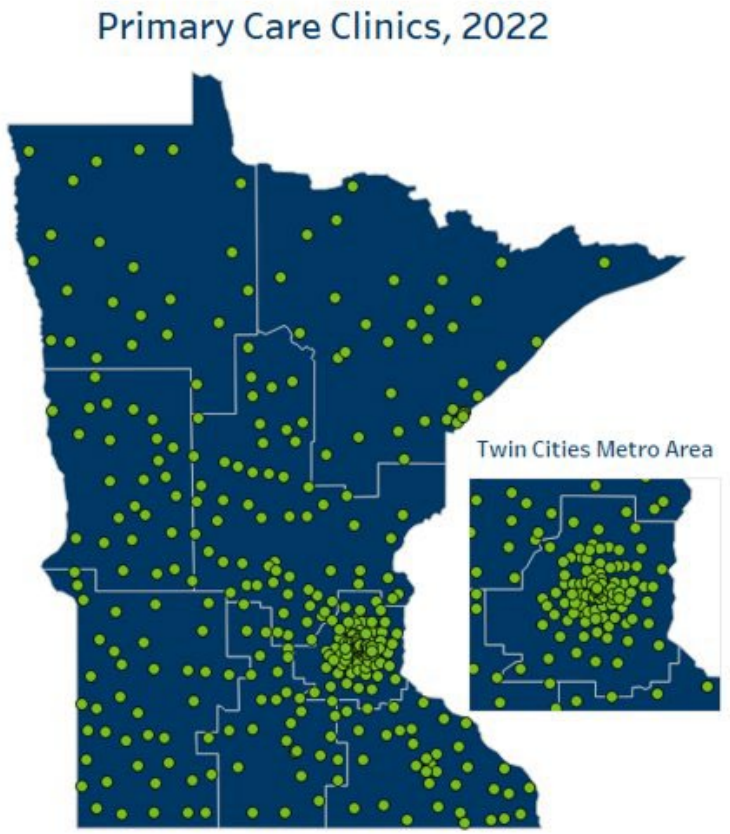
Hospital and nursing home services are available throughout the state

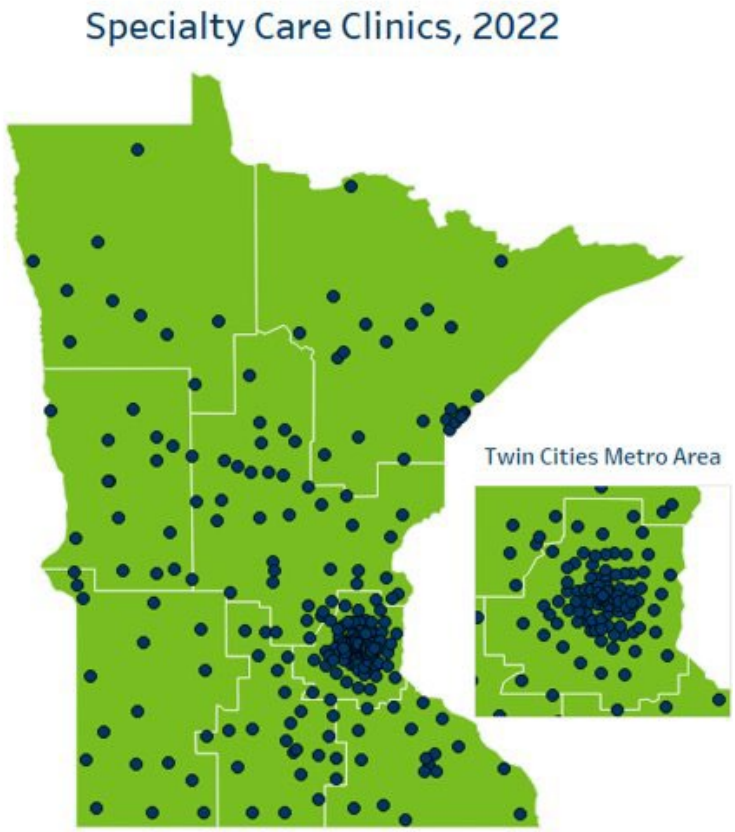


- Of the 127 community hospitals in Minnesota, 76 are designated Critical Access Hospitals.[1,2]
- In total, 90 hospitals are located in rural areas.[1]
- Around one-third of all hospital outpatient clinics in the state, 138 of 408 total clinics, are in rural areas.[1,3]
- All but one county, Red Lake, has at least one nursing home as of 2022.[4]

[1] Source: MDH Health Economics Program analysis of 2022 hospital annual reports, November 2023.
[2] There are 77 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. https://www.health.state.mn.us/facilities/ruralhealth/flex/mnhospitals.html
[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 2022 Directory of Registered, Licensed and/or Certified Health Care Facilities and Service, Table 11. https://www.health.state.mn.us/facilities/regulation/directory/docs/2022mdhdirectory.pdf.
Summary of Slide

Primary and specialty clinics are available throughout Minnesota





- 37% (240) of all primary care clinics (642) are located in rural areas.[1]
- 20% (196) of all specialty care clinics (957) are located in rural areas. [1]
- Minnesota's 17 Community Health Centers care for nearly 200,000 low-income people.[2]

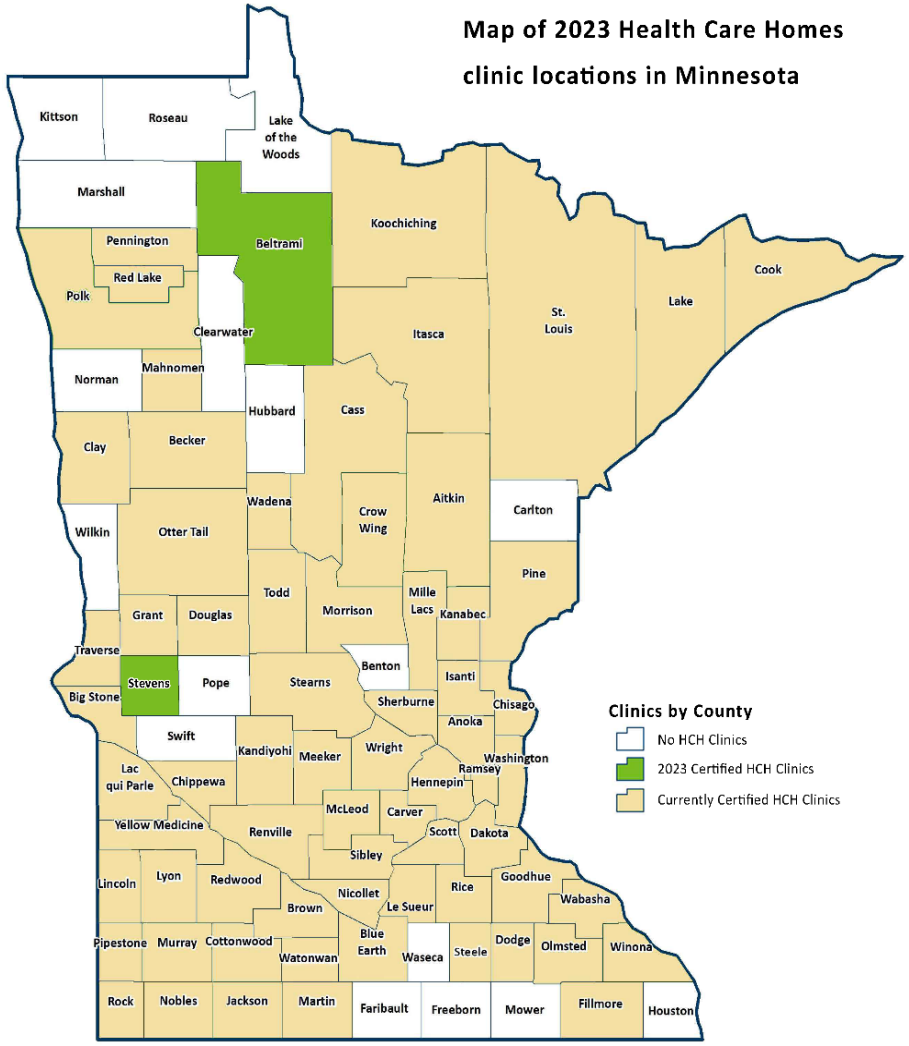
Map Notes: Dots represent the number of clinics, and do not account for patient population or number of practicing physicians. Locations are plotted by zip code and may not be exact. Primary Care includes general family medicine, general internal medicine, and general pediatrics; Specialty Care includes one or more non-primary care specialty. 74.3% of the population lives in urban areas, and 25.7% of the population lives in rural areas based on 2019 5-year population estimates and census tract RUCA codes.

[1] Source: MDH Health Economics Program analysis of the Minnesota Statewide Quality Reporting and Measurement System 2022 Physician Clinic Registry; also source for maps.

[2] Source: https://www.mnachc.org/what-is-a-community-health-center

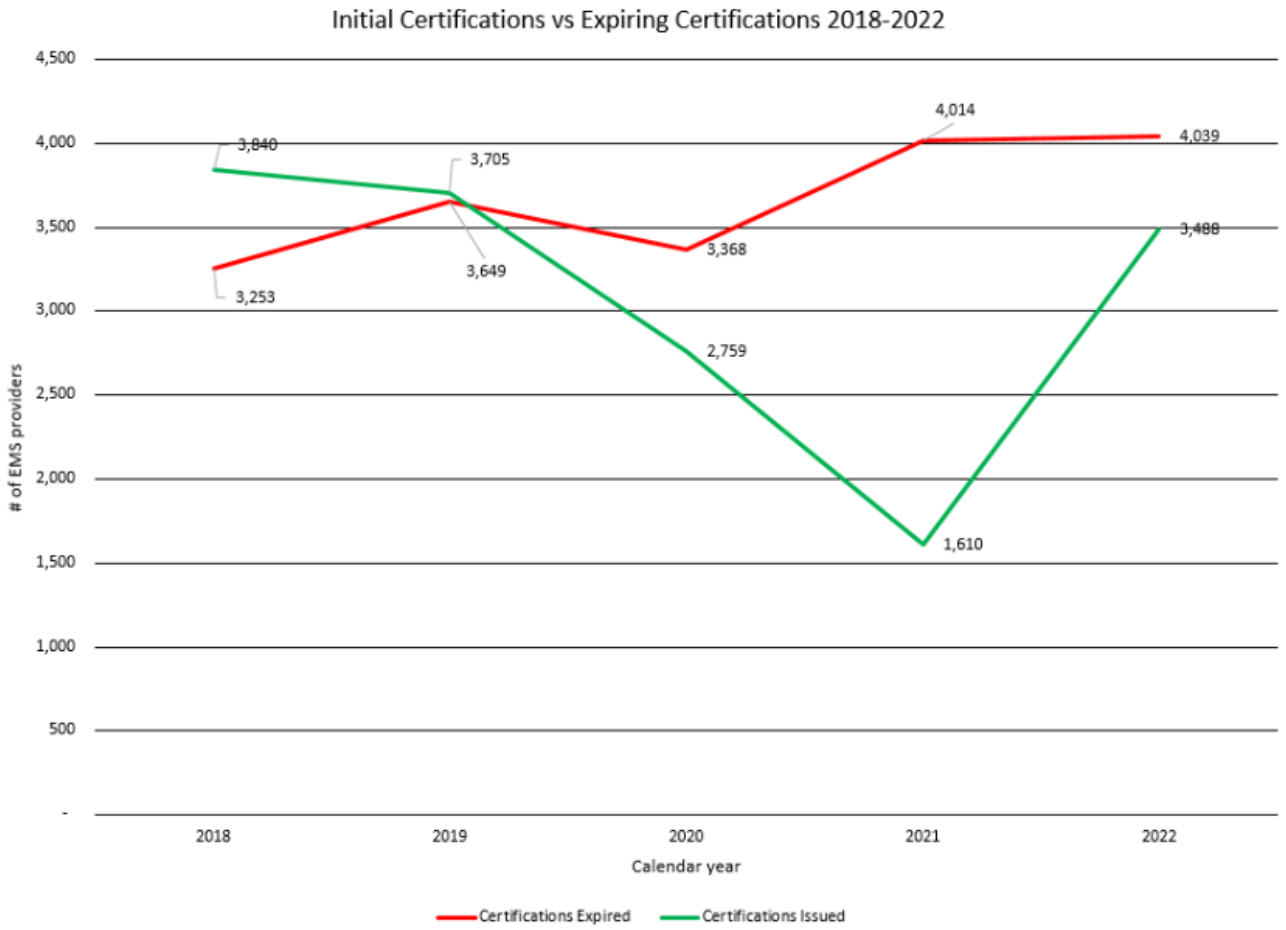
Summary of Slide

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 home.
- The health care home clinic team coordinates care with the patient and their family to ensure whole person care and to improve health and well-being.
- 80% of MN counties have at least one health care home clinic.
- Beltrami and Stearns counties (highlighted in green on the map) have a newly certified health care home.
- The health care homes framework certifies clinics at the following levels of progression: Foundational Level (337 clinics), Level 2 (12 clinics), and Level 3 (73 clinics). Organizations may choose to certify at the level appropriate for each clinic.

Rural Emergency Medical Services (EMS) workforce is in crisis!



- Minnesota's mirrors in the nation in seeing decreases in the EMS workforce.
- There is a gap between the numbers of EMS certifications issued vs. those expiring.
- In 2022, the state lost 551 certified EMS providers.

Source: Minnesota EMS Certification/ Licensure System

Access to critical trauma and stroke care is available throughout the state

- Minnesota has 126 designated trauma hospitals across four adult and two pediatric designation levels.
- 99% of Minnesotans live within 60 minutes of a trauma hospital.
- 76% of Minnesotans live within 60 minutes of a Level 1 or 2 trauma hospital.
- 72% of Minnesota children live within 60 minutes of a pediatric trauma hospital.
- 94% of Minnesotans live within a 30-minute drive of a designated stroke system hospital.

Source: MDH Trauma System April 2023; MDH Stroke System July 2023

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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 more 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.

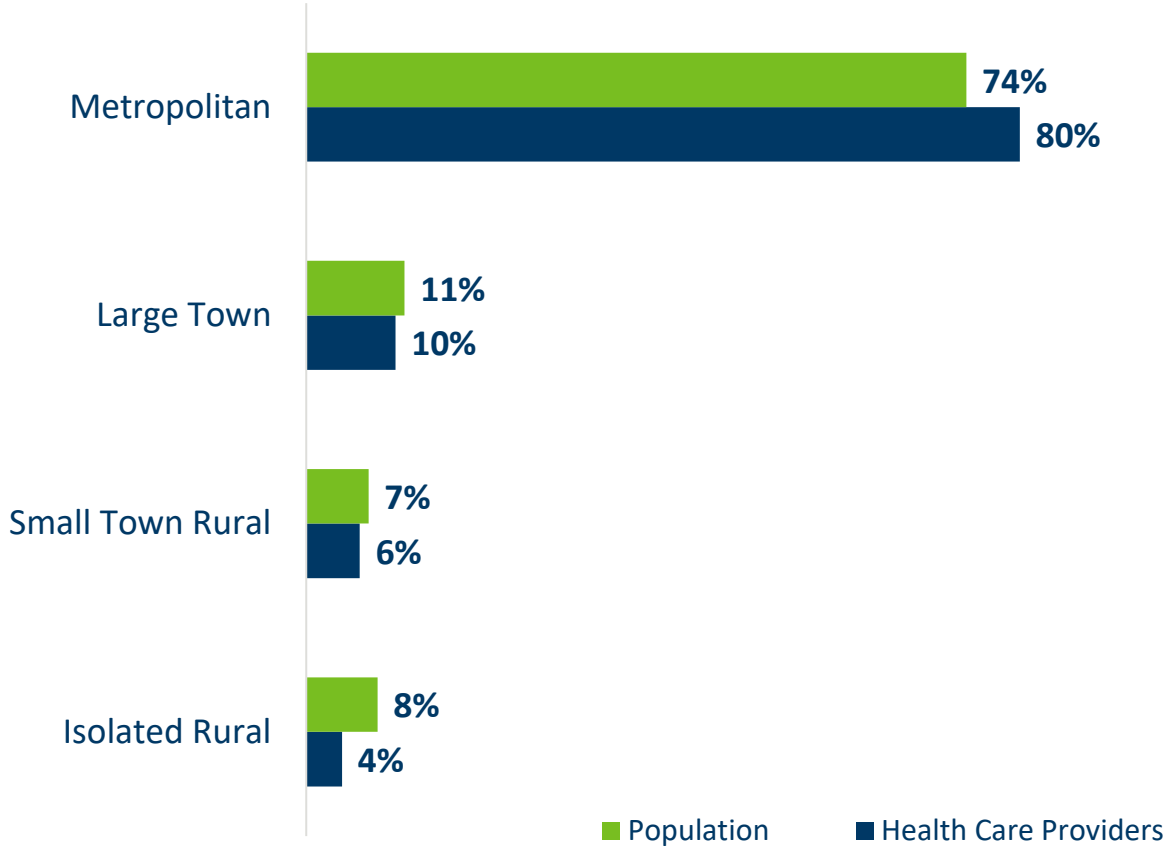
Registered nurses and licensed practical nurses make up the majority of the health care workforce in Minnesota

Provider Group	Number of Providers in Minnesota November, 2023
Registered Nurses and Licensed Practical Nurses	140,168
Physicians	28,247
Mental Health Providers	27,684
Pharmacy Technicians	14,022
Advanced Practice Nurses	12,348
Pharmacists	9,913
Physical Therapy Professionals	8,469
Physician Assistants	4,366
Alcohol and Drug Counselors	4,082
Dentists	4,012

Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Health Licensing Boards, July 2023. This table excludes Respiratory Therapists and some other smaller licensed occupations, including: Chiropractic, Sports Medicine, and Occupational Therapy.

Summary of Slide

The majority of licensed health care providers work in metropolitan areas



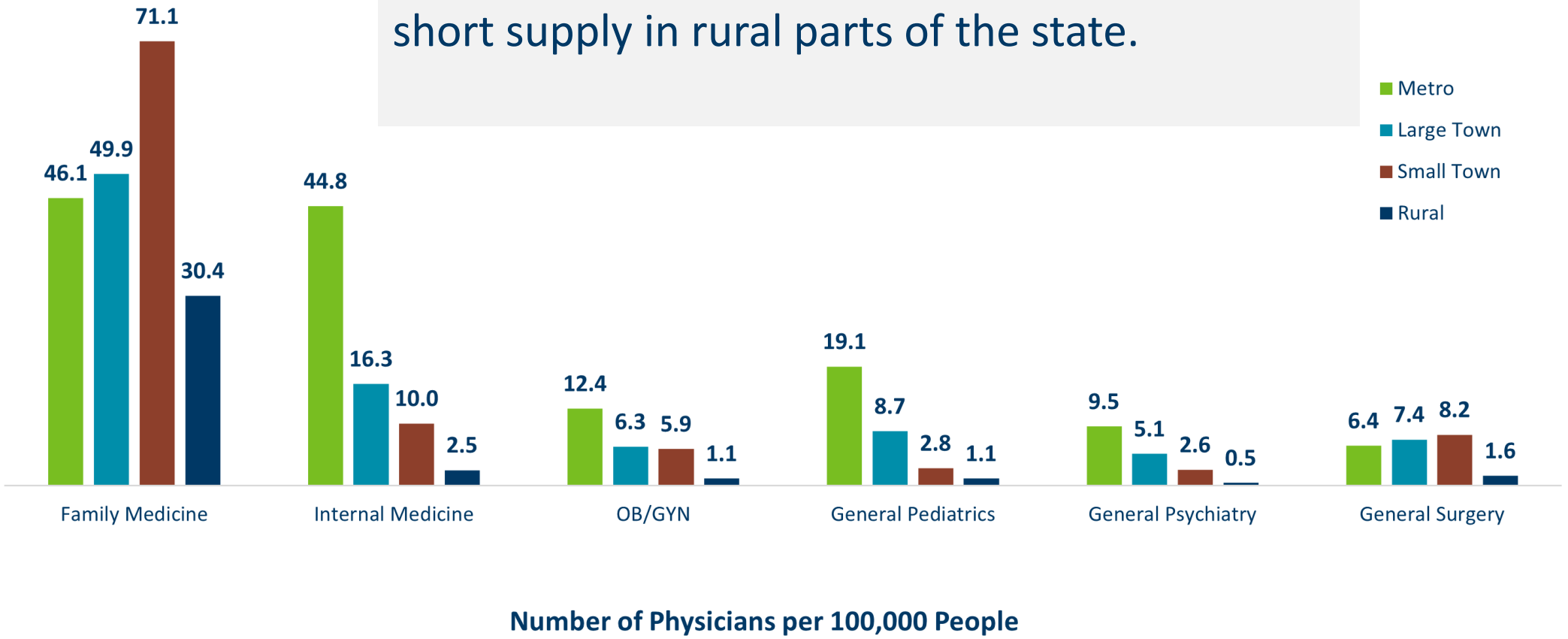
Very few licensed health care providers work in rural areas.

Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Health Licensing Boards, July 2023. Data includes: physicians, physician assistants, respiratory therapists, oral health professions, pharmacy professions, physical therapy professions, and mental health professions.

Summary of Slide

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 the American Board of Medical Specialties and American Osteopathic Association. Counts by region are based on primary practice address that physicians report to the Board of Medical Practice. July 2023.

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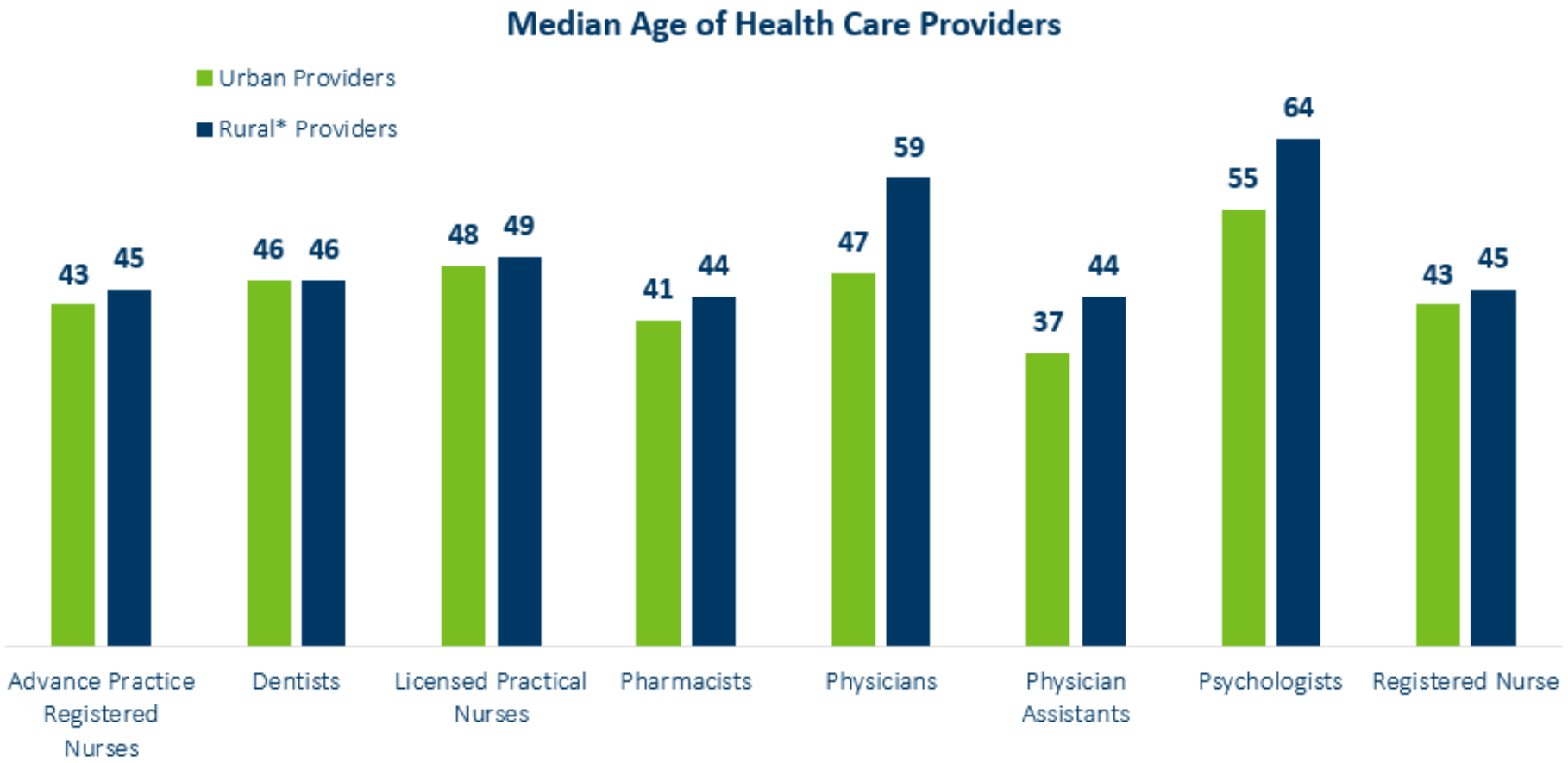
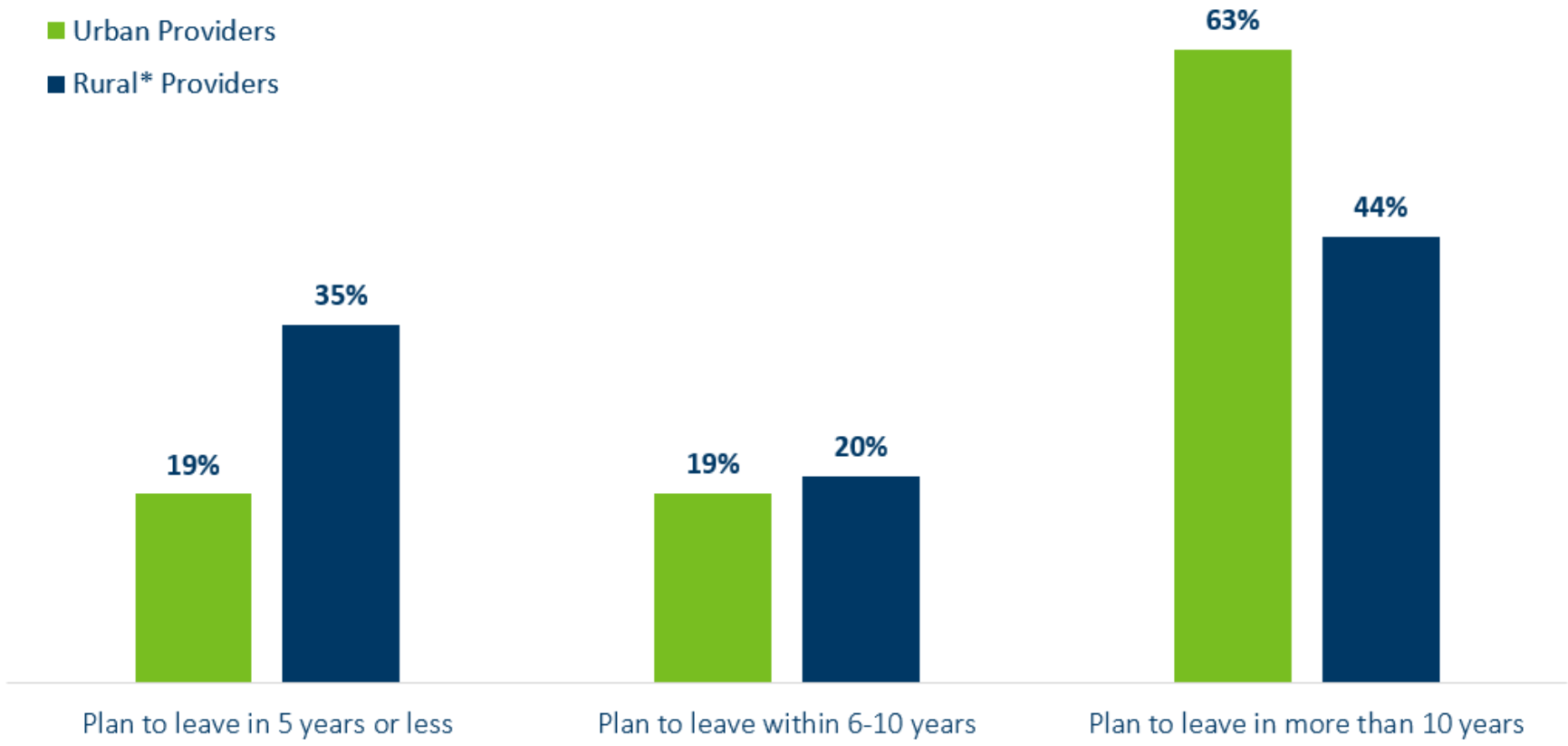
Rural providers are older than their urban counterparts



Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Health Licensing Boards, July 2023.
*Rural = isolated rural from Rural-Urban Commuting Area codes.

Summary of Slide

One in three rural physicians plan to leave the workforce within the next five years

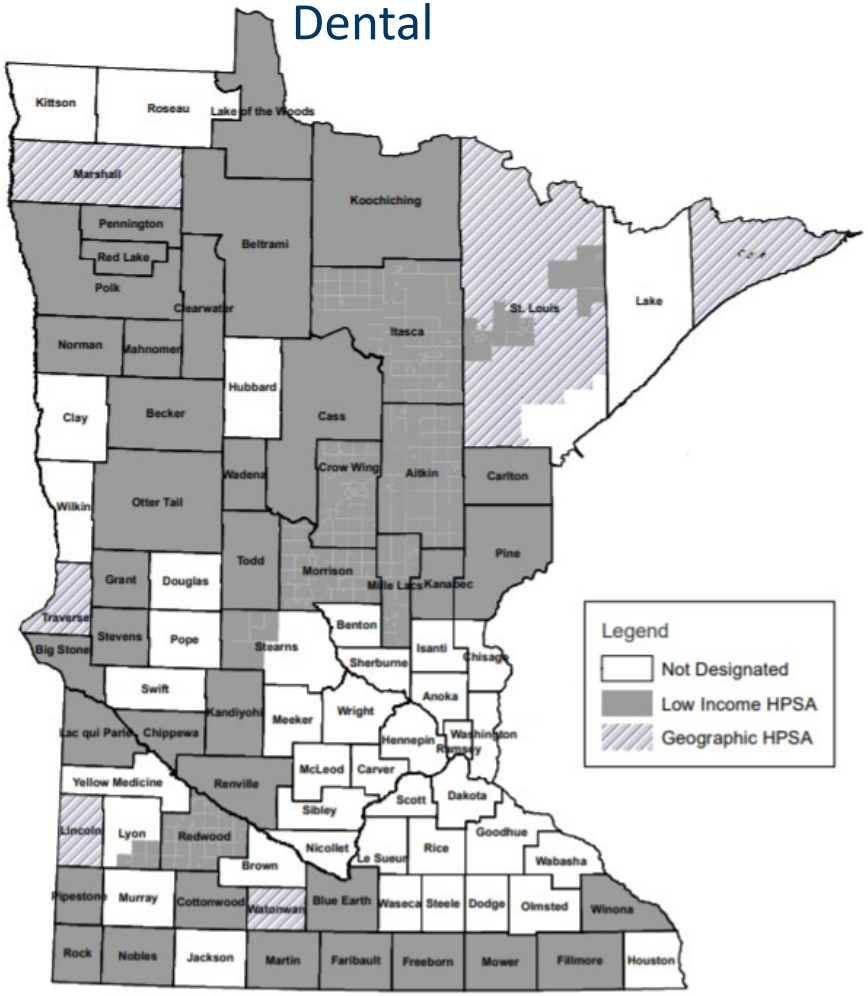


Source: MDH Office of Rural Health and Primary Care, Physician Workforce Survey, (February 2023 – November 2023)
*Rural = isolated rural from Rural-Urban Commuting Area codes.

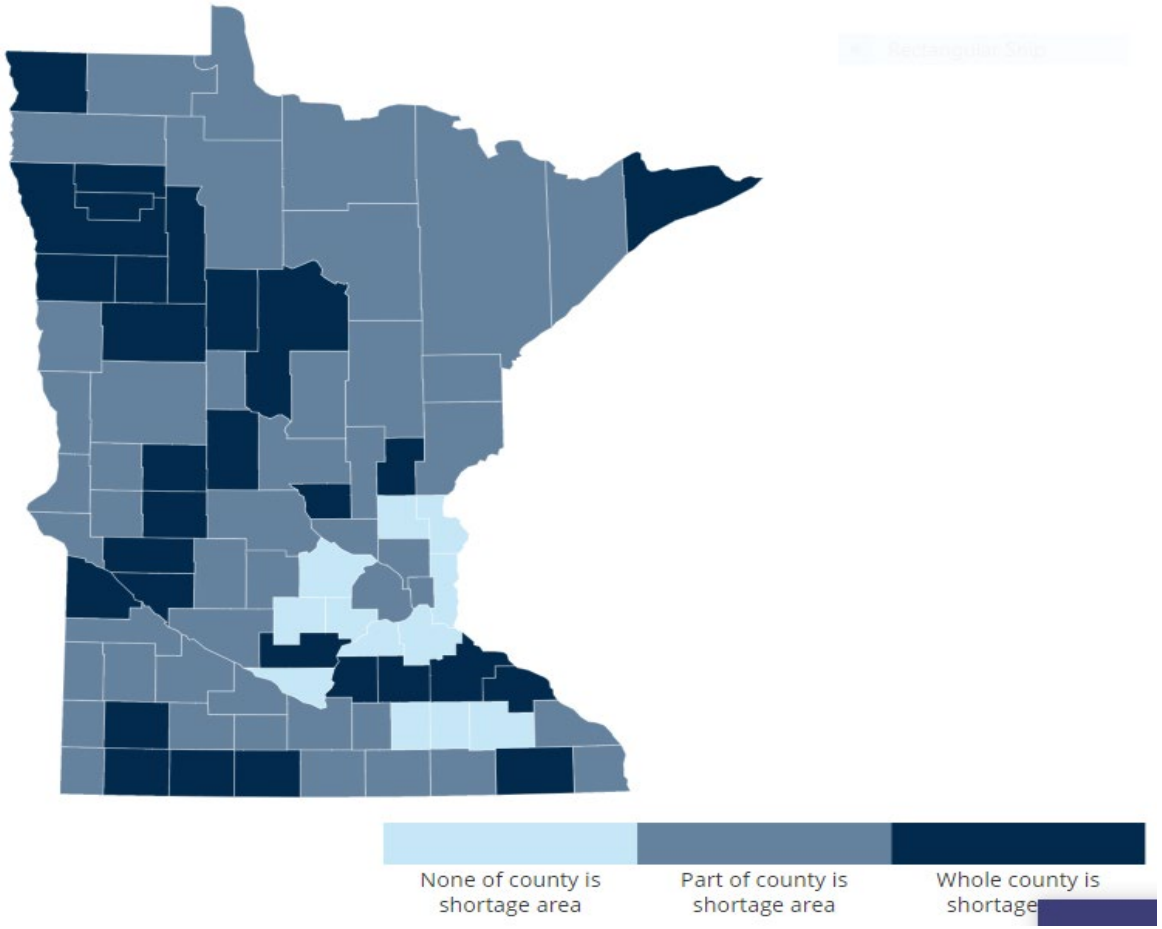
Summary of slide

Minnesota has 525 designated Health Professional Shortage Areas

Health Professional Shortage Areas Dental



Health Professional Shortage Areas Primary Care



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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 years:
  - Fewer services are available at rural hospitals, or the hospitals have closed.
  - Non-metro counties have seen declines in obstetrics services and increases in outpatient psychiatric services.
  - More than half of the nursing home closures between 2013 and 2022 were in rural counties.

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

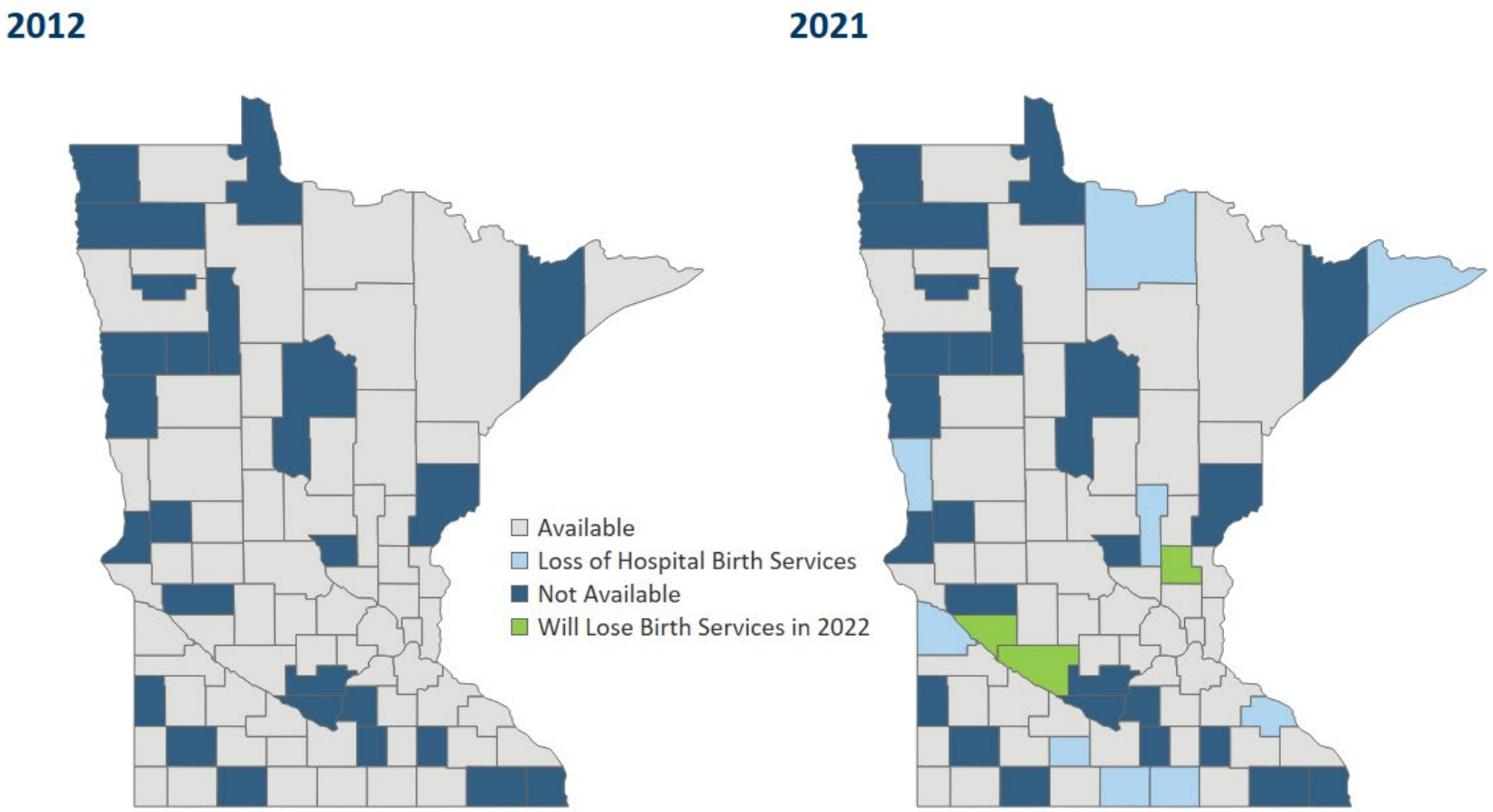
	Hospitals with service available in 2012	Change in Service due to:			Hospitals with service available in 2021	Percent Change 2012 to 2021
		Closure or Consolidation	Lost Service	Added Service		
Surgery						
Inpatient Surgery	86	2	6	1	79	-8.1%
Outpatient Surgery	91	2	1	1	89	-2.2%
Mental Health/Chemical Dependency Services						
Outpatient Psychiatric	38	2	6	16	46	21.1%
Detoxification Services	9	1	4	5	9	0.0%
Diagnostic Radiology Services						
Computer Tomography (CT) Scanning	92	2	0	0	90	-2.2%
Magnetic Resonance Imaging (MRI)	90	2	1	1	88	-2.2%
Positron Emission Tomography (PET)	3	0	2	2	3	0.0%
Single Photon Emission Computerized Tomography (SPECT)	16	0	1	14	29	81.3%
Other Services						
Renal Dialysis Services	14	0	3	2	13	-7.1%
Cardiac Catheterization Services	2	0	0	1	3	50.0%

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 2022; 2021 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 2012 or 2021.

Summary of Slide

Nine Minnesota counties lost hospital birth services between 2012 and 2021

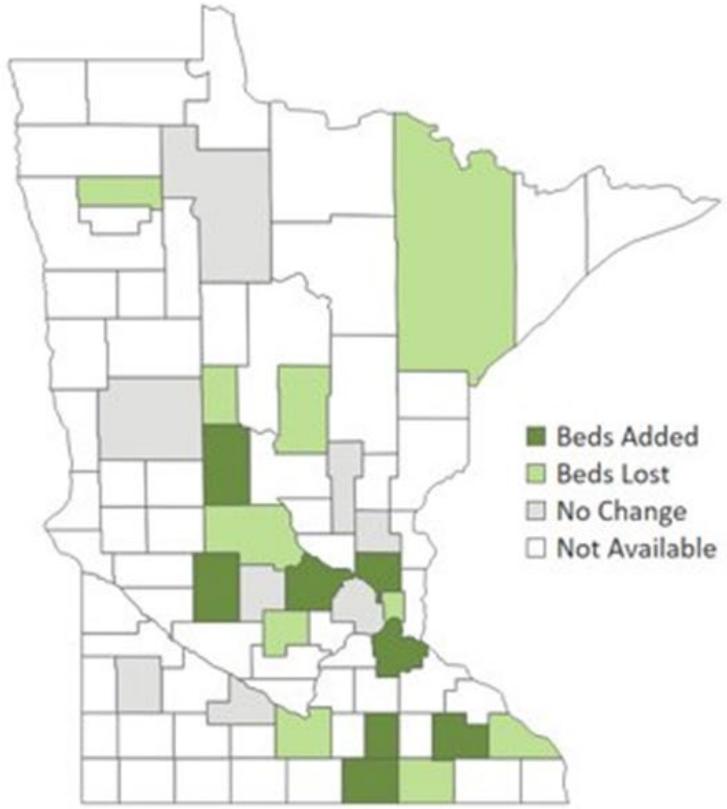


Increases in pre-term births have been associated with the loss of hospital birth services in rural areas.

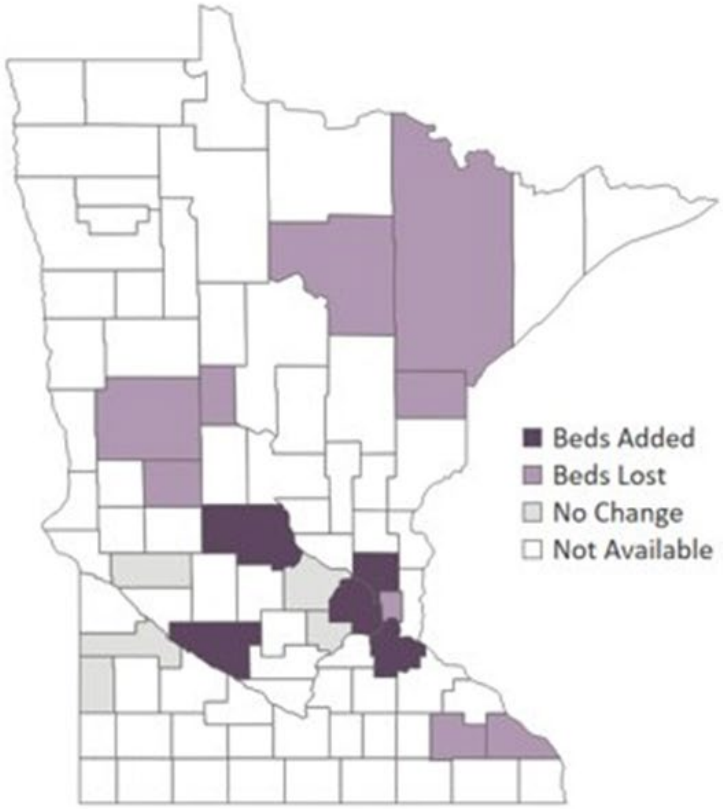
Note: Due to a merger, the hospital in Mower County was no longer an independent licensed entity as of the end of 2014; however, birth services were offered at that site under the license of the remaining corporate entity. The other hospital of the merger, in Freeborn County, no longer has birth services.
Sources: Minnesota Department of Health, Health Economics Program Analysis of hospital annual reports, October 2022; 2021 data is considered preliminary; U.S. Census Bureau (County Designations); 2022 closures: https://www.health.state.mn.us/about/org/hrd/hearing/index.html
Definition: Community hospitals were categorized as not offering birth services if they did not have at least one routine birth and had no licensed bassinets or stated that services were not available.
Summary of Slide

Other counties had changes in cardiac and mental health beds over the past decade

Mental Health Beds 2013-2022



Cardiac Beds 2013-2022



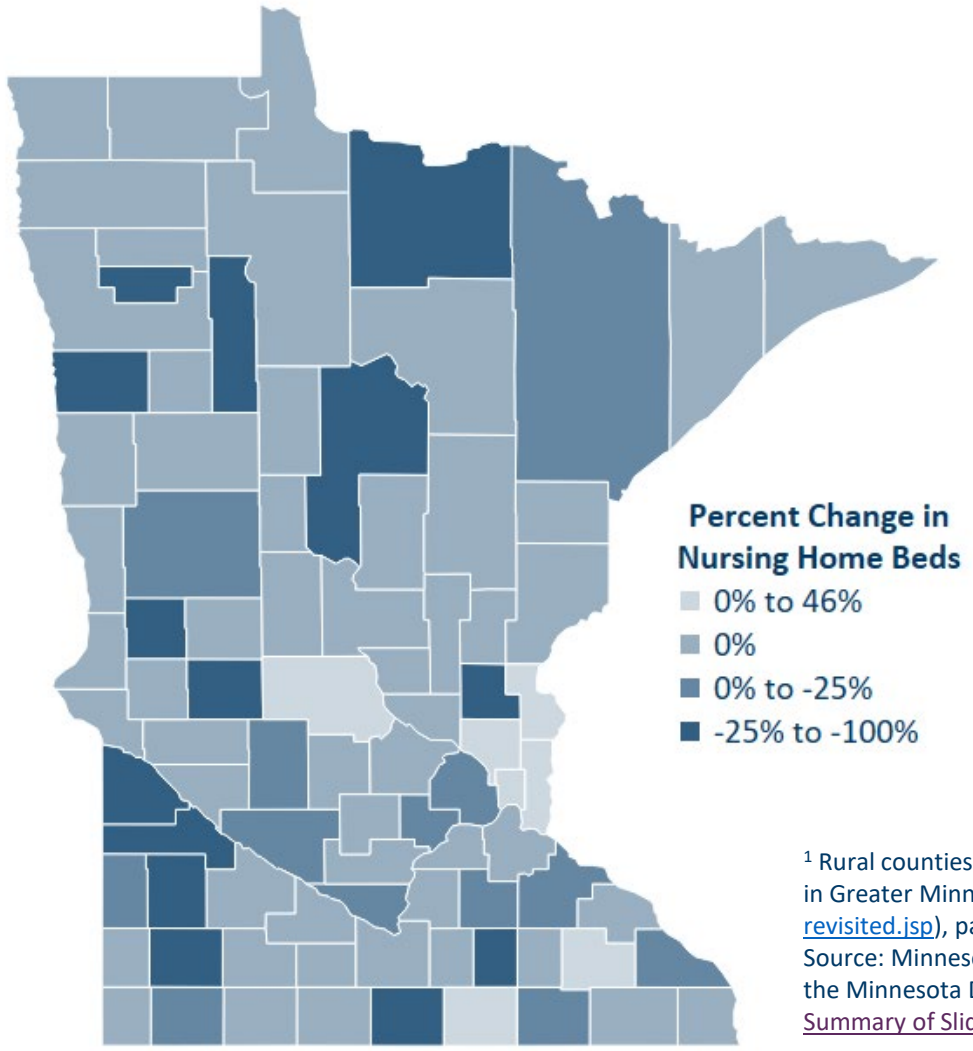
Statewide, between 2013 and 2022:

- 10 mental health beds were *lost.*
- 50 cardiac beds were *lost.*

Source: MDH Health Economics Program analysis of hospital annual reports, November 2023; 2022 data is considered preliminary.

Summary of Slide

The relative decline in nursing homes and nursing home beds was greater in rural Minnesota between 2012 and 2021



- Rural counties[1] have about 30% of all nursing homes but accounted for the majority of closed nursing homes in the state between 2012 and 2021.
- In total, rural counties[1] lost 19 nursing homes, and had a nearly 10% decline in nursing home beds.
- The nursing home population has been declining since 1995, with alternative 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 2012 and 2021 nursing facility counts and capacity from the Minnesota Department of Health, Health Regulation Division.

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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?

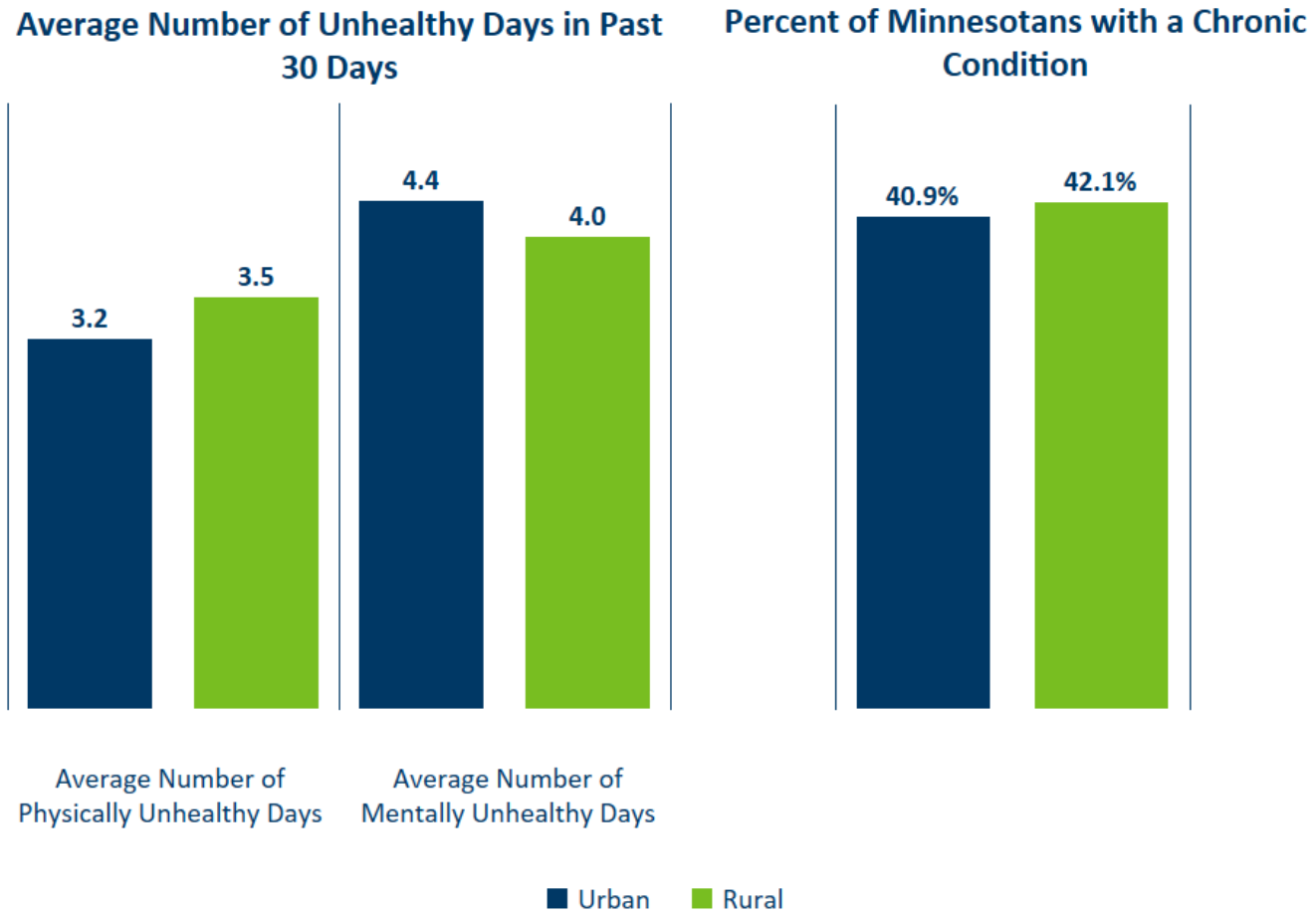
Key points – Health care access and use

- Rural and urban Minnesotans report similar health status, but rural Minnesotans experience higher rates of suicide.
- Rural Minnesotans have to travel farther to receive inpatient health care services – especially mental health and obstetrics services.
- Rural Minnesotans are more likely to have problems getting appointments with primary care providers when needed and finding dentists accepting new patients.
- 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

- Most Minnesotans – 96.0% – 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 – 16.6% of Minnesotans struggle with medical bills, and 20.2% forgo needed health care due to cost.
- Minnesotans in rural areas were less likely to have telephone or video visits with providers in 2021.

Rural and urban residents report about the same number of unhealthy days

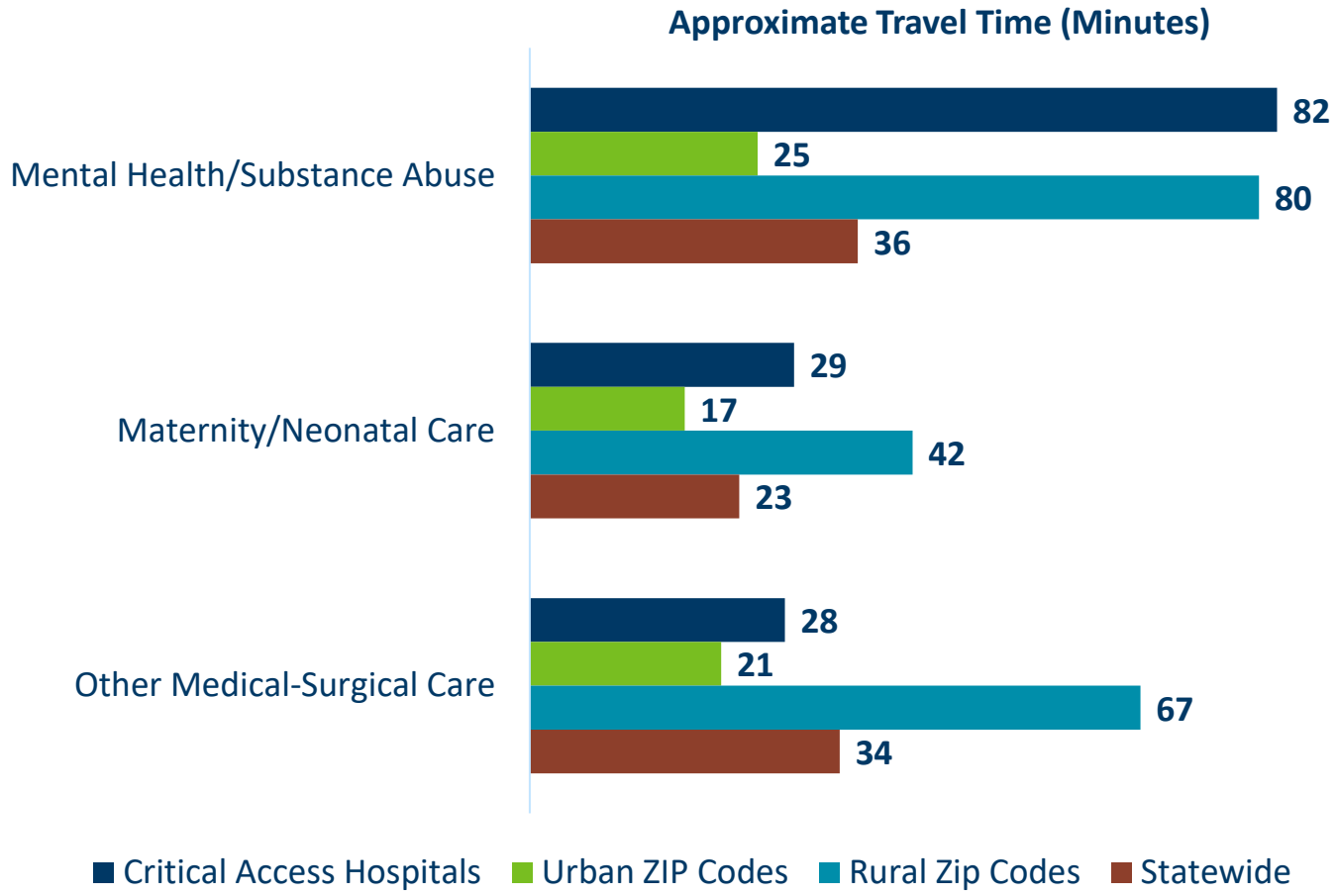


- Minnesotans living in rural areas reported frequent mental distress at about the same rate (12.3%) as those living in urban areas (12.7%).[1]
- Age-adjusted suicide rate in greater Minnesota (16.0) was higher than the 7-county metro area (11.7) in 2020; this was primarily due to higher firearm suicide rates in greater Minnesota (7.9) compared to the 7-county metro (4.6).[2]

[1] Source: Minnesota Health Access Survey, 2021. Urban and Rural defined based on RUCA zip-code approximations. Difference was not statistically significant at the 95% level. Differences in unhealthy days and chronic conditions were not statistically significant at the 95% level.
[2] Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death on CDC WONDER Online Database, released 2021.
Summary of Slide

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 more than 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.

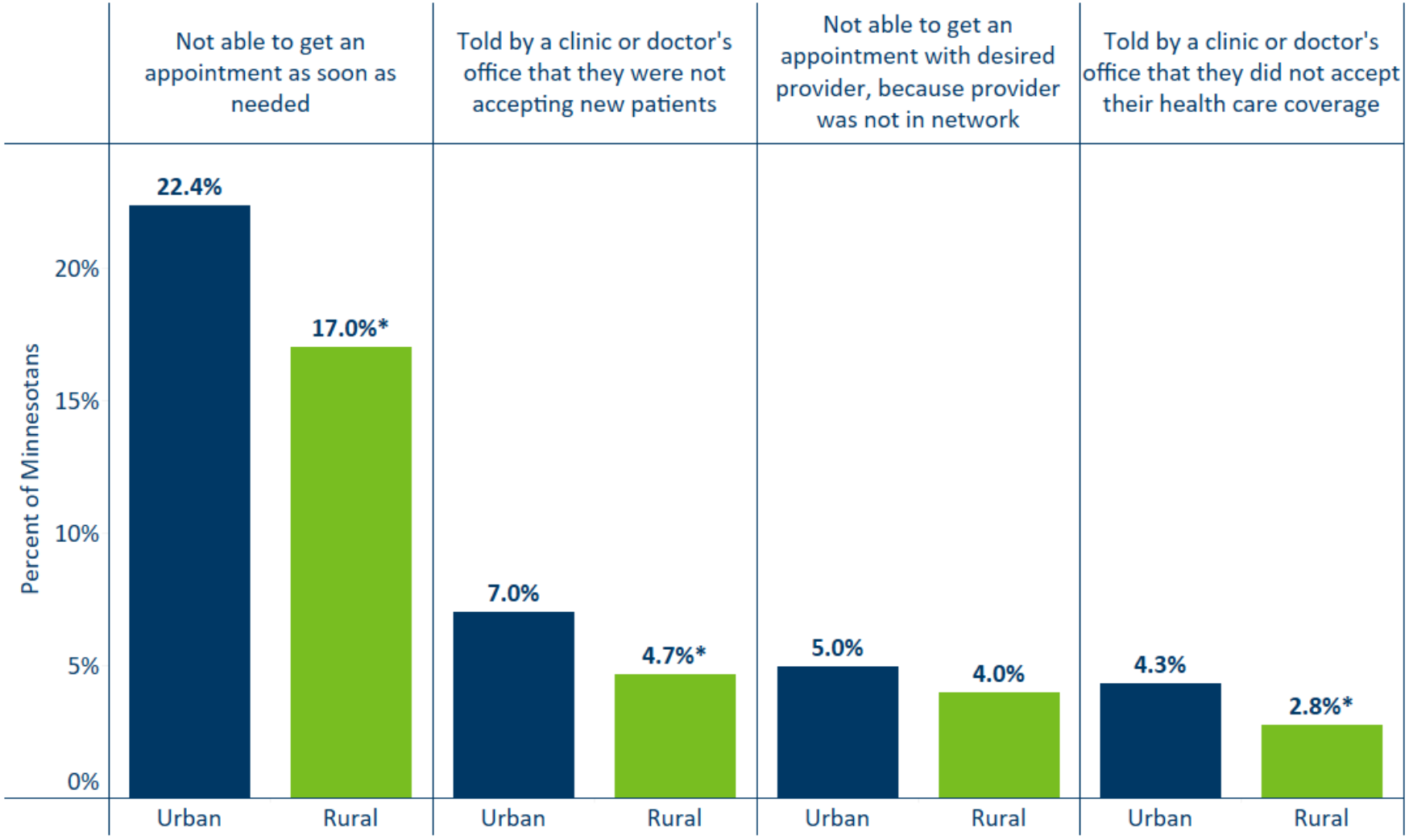


Source: MDH analysis of Minnesota hospital discharge inpatient records for medical-surgical care, obstetrics care, and mental health or chemical dependency care occurring in calendar years 2019-2021. The analysis calculated the distance between the geographic centroid of each ZIP code to respective hospitals 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.

Summary of Slide

Rural Minnesotans have fewer problems accessing providers

- 17% of rural Minnesotans could not see a provider as soon as needed.
- Issues with providers not being in network were similar for urban and rural Minnesotans.

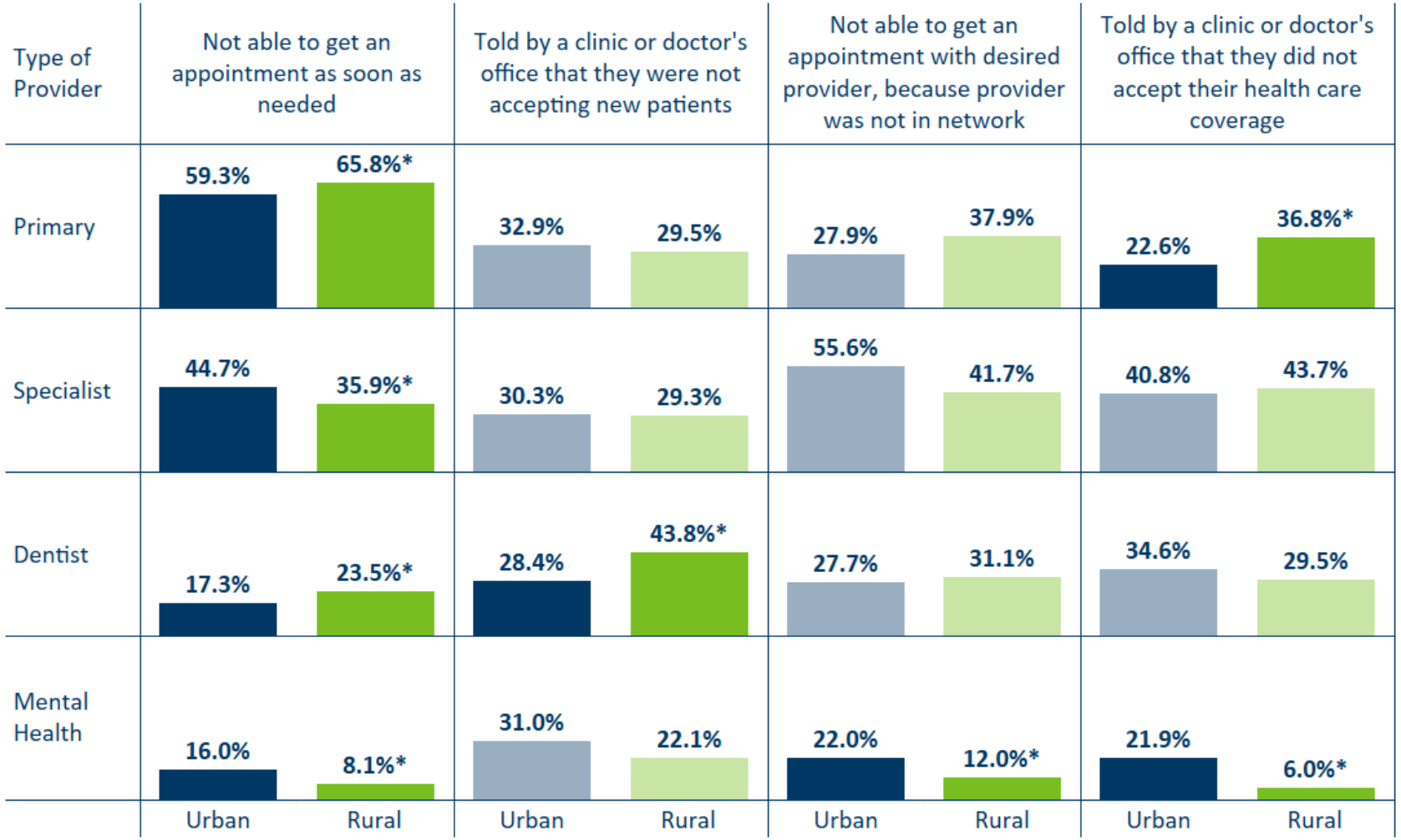


Source: Minnesota Health Access Survey, 2021.
*Indicates significant difference from Urban at the 95% level.
Urban and Rural defined based on RUCA zip-code approximations.
Summary of Slide

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 or a dentist.

Rural Minnesotans also had more problems finding dentists that were accepting new patients.

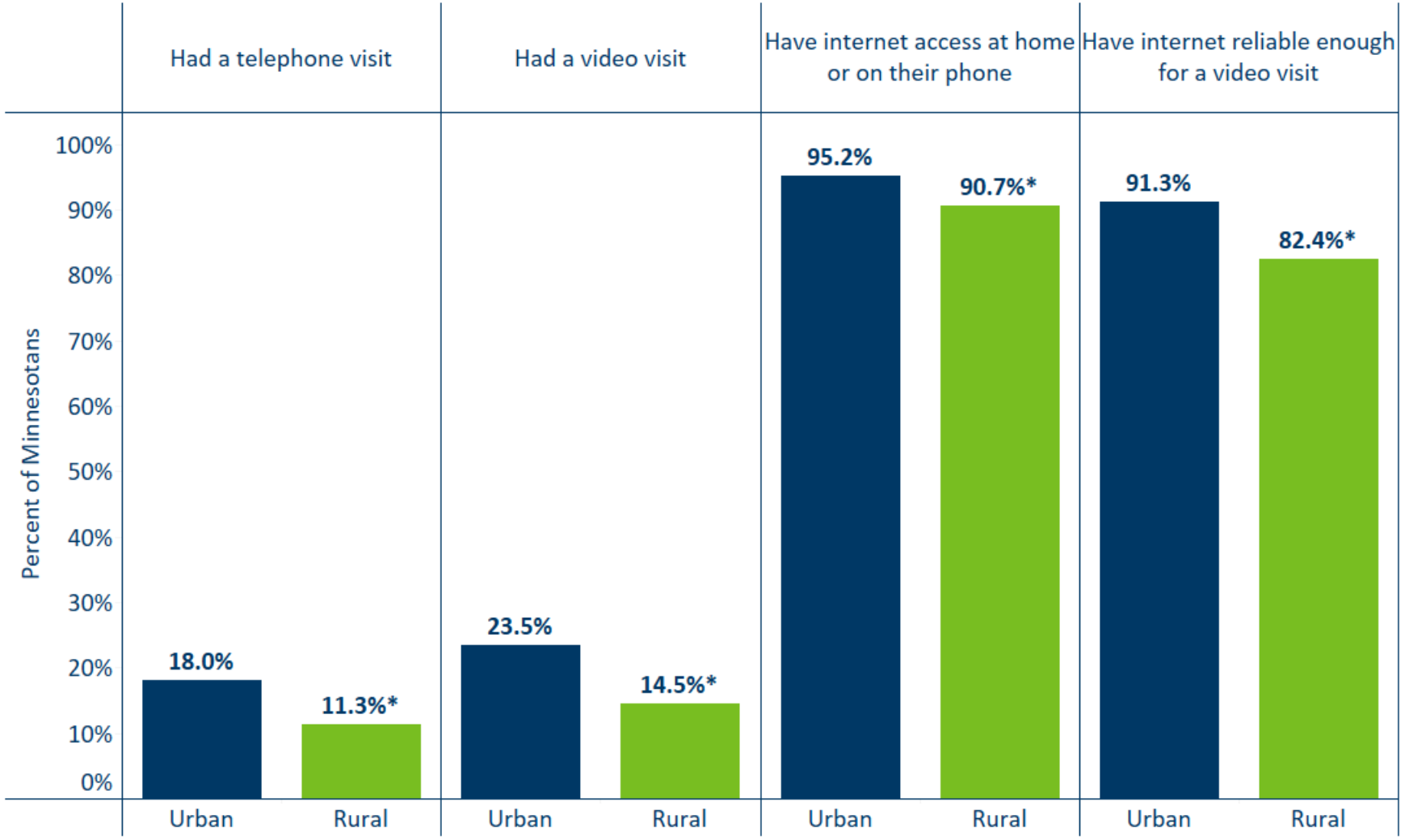


Source: Minnesota Health Access Survey, 2021.
*Indicates significant difference from Urban at the 95% level.
Percentages for Type of Provider do not sum to 100 because respondents were able to select more than one type of provider. Urban and Rural defined based on RUCA zip-code approximations.

Summary of Slide

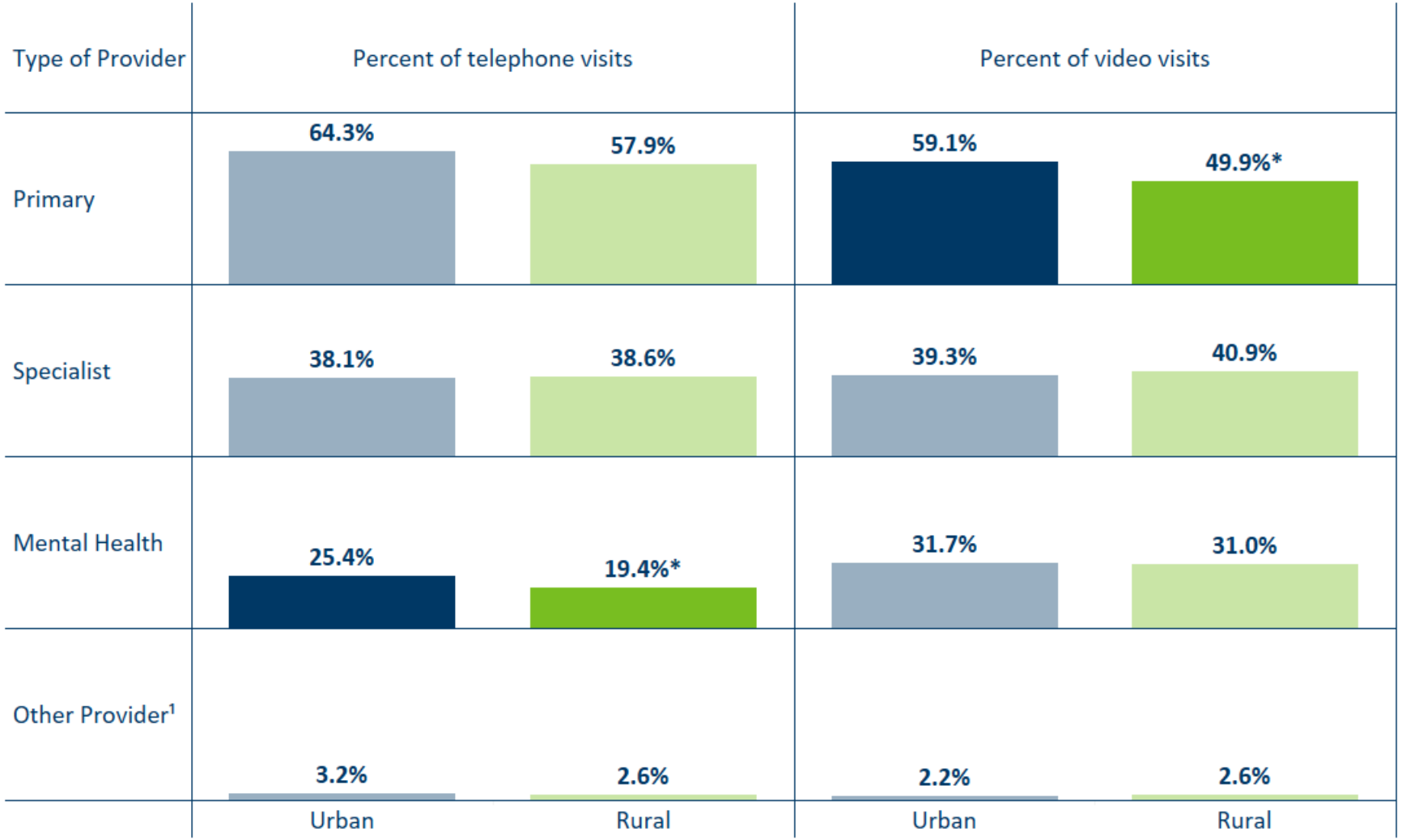
Rural Minnesotans had lower telehealth use

- Rural Minnesotans had lower utilization of both phone and video visits.
- Almost 20% of rural Minnesotans lack internet reliable enough to use for a video visit.



Source: Minnesota Health Access Survey, 2021.
*Indicates significant difference from Urban at the 95% level.
Urban and Rural defined based on RUCA zip-code approximations.
Summary of Slide

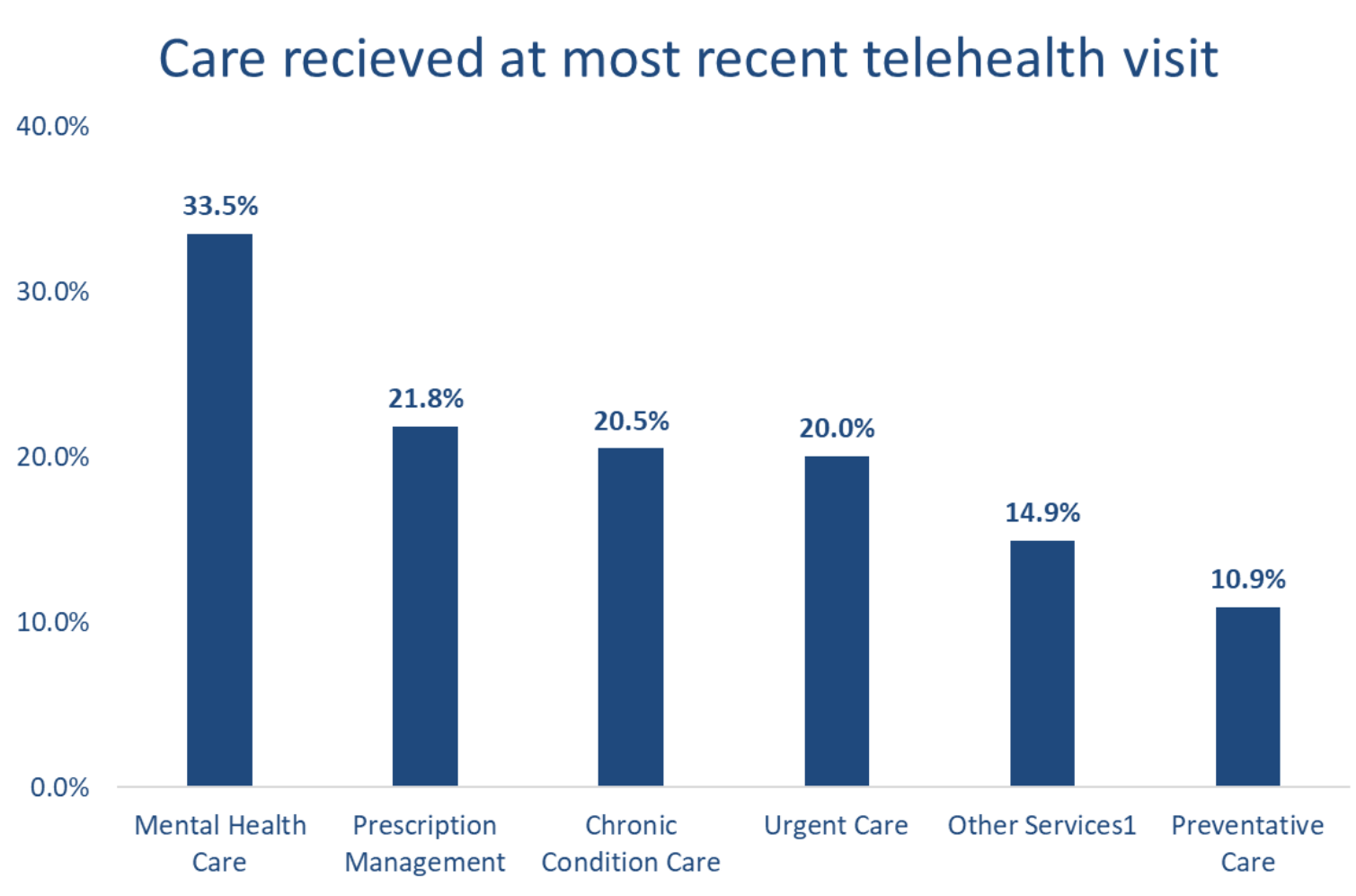
Most telehealth visits in the state were to primary care providers



- Mental health visits made up a higher percentage of video visits than phone visits.
- Most people would do a telehealth visit again.
  - 78.5% for phone visits
  - 80.8% for video visits
  - This was similar for urban and rural respondents.

Source: Minnesota Health Access Survey, 2021.
*Indicates significant difference from Urban at the 95% level.
1 Other providers include dentists, alternative medicine providers, emergency rooms/urgent cares or COVID testing sites.
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.
Summary of Slide

Most recent telehealth visits in the state were for mental health care in 2023



- Tele-mental health visits were a lower proportion of telehealth use in Greater Minnesota than the Twin Cities Metro (24.4%).
- Most people would do a telehealth visit again.
  - 81.4% for phone visits
  - 85.0% for video visits
  - This was similar for urban and rural respondents.

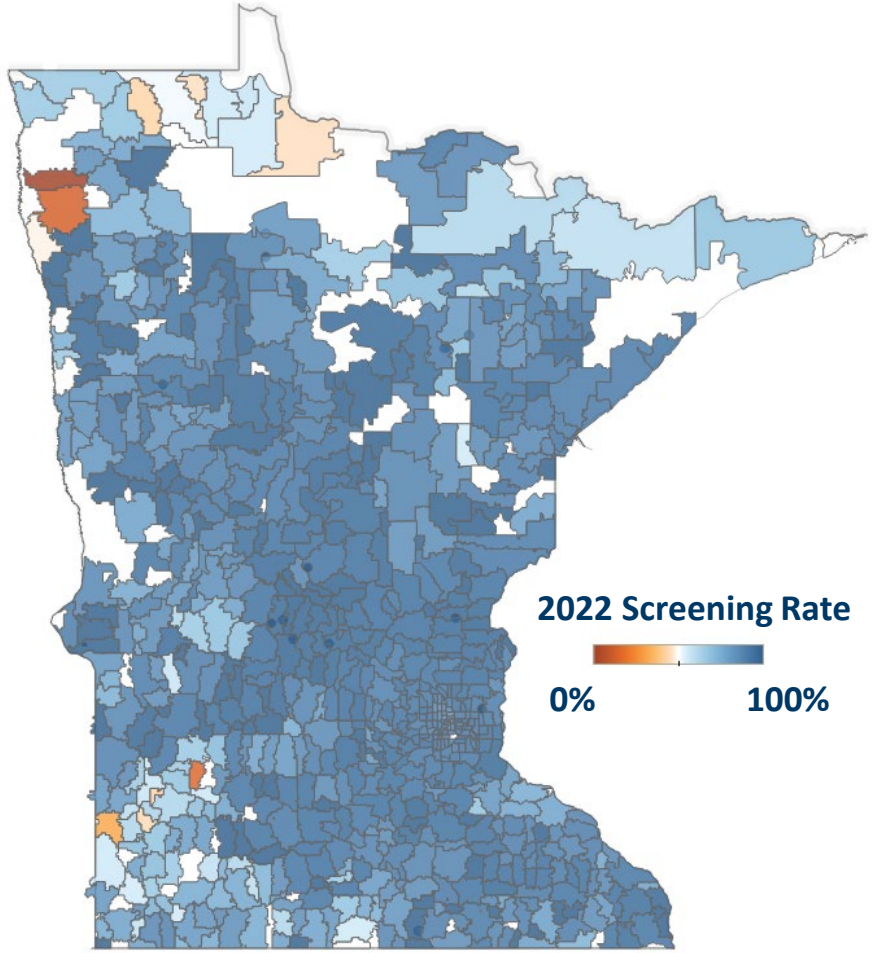
Source: Minnesota Telehealth Access Survey, 2023.
1 Other services include behavioral health care, prenatal care, in-hospital care, and emergency care.
Percentages for care received do not sum to 100 because respondents were able to select more than one type of care.
Summary of Slide

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.
Summary of Slide

Fewer adolescent patients in rural areas are screened for mental health or depression problems, though rates are improving

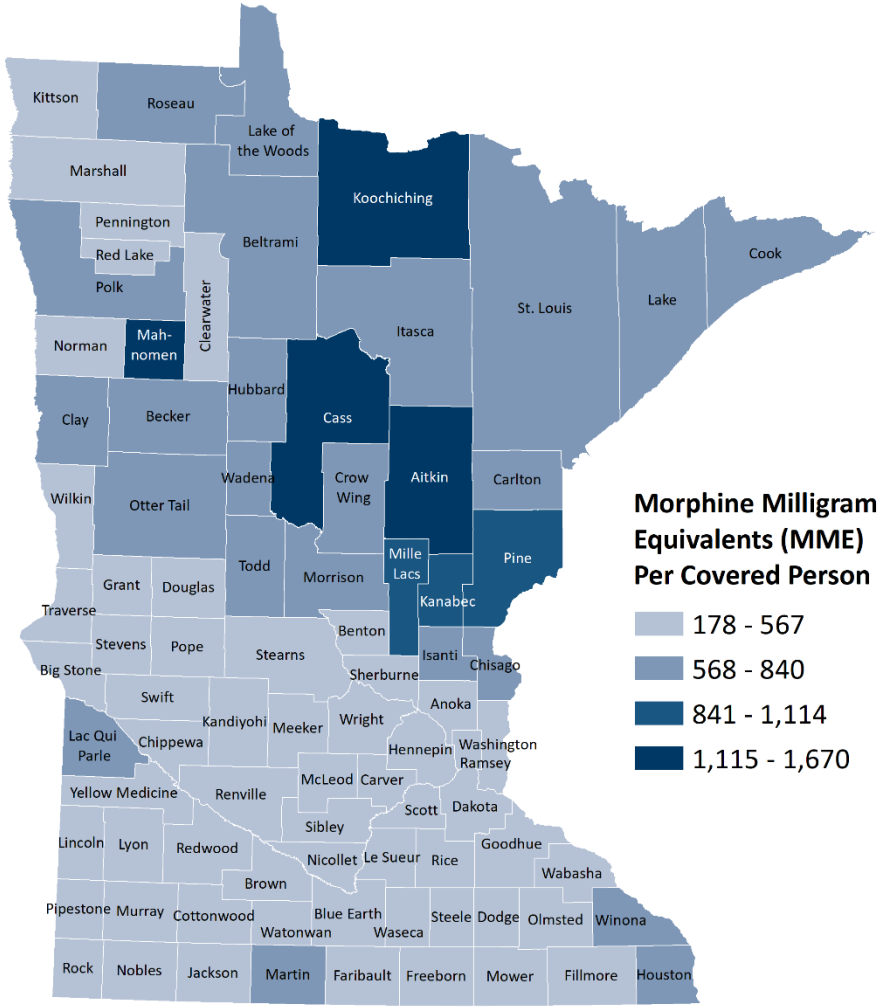


Geography	2020 Screening Rate	2022 Screening Rate
Metropolitan	92%	93%
Small Rural Town	86%	90%
Isolated Rural	85%	89%
Statewide	**91%**	**93%**

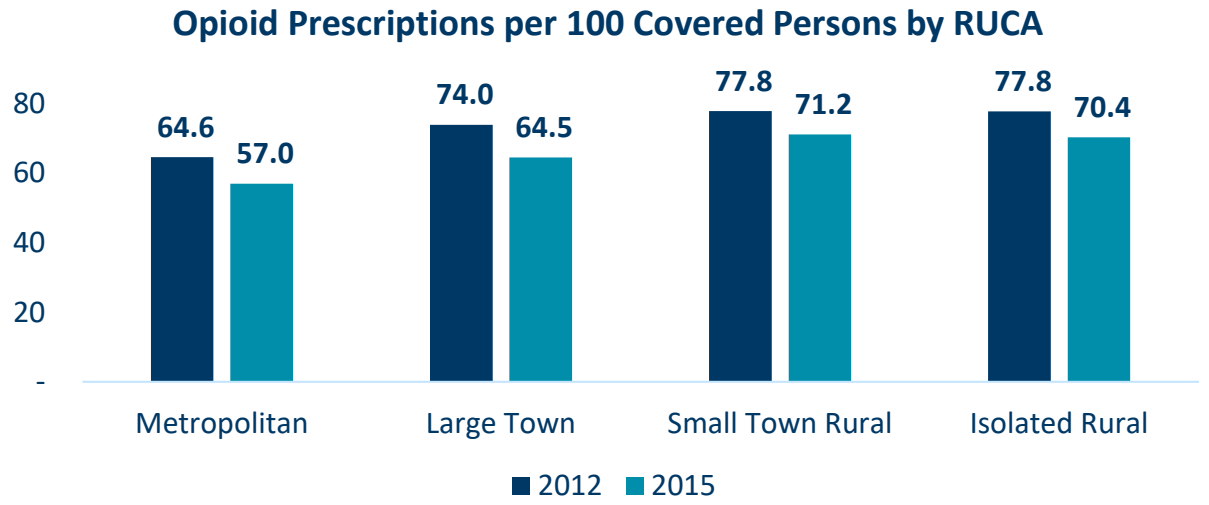
- Screening has *increased* over time in both urban and rural areas
- Rural adolescents are still less likely to be screened
- Half of all mental health conditions begin by age 14.[1]
- Early treatment may lead to better outcomes in the long term.

[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 telehealth or 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 opioid prescriptions.



Source: MDH Health Economics Program and Mathematica Policy Research "Patterns of Opioid Prescribing in Minnesota: 2012 and 2015," April 2018.
https://www.health.state.mn.us/data/economics/docs/opioidbrief20185.pdf
Summary of Slide

DEPARTMENT OF HEALTH

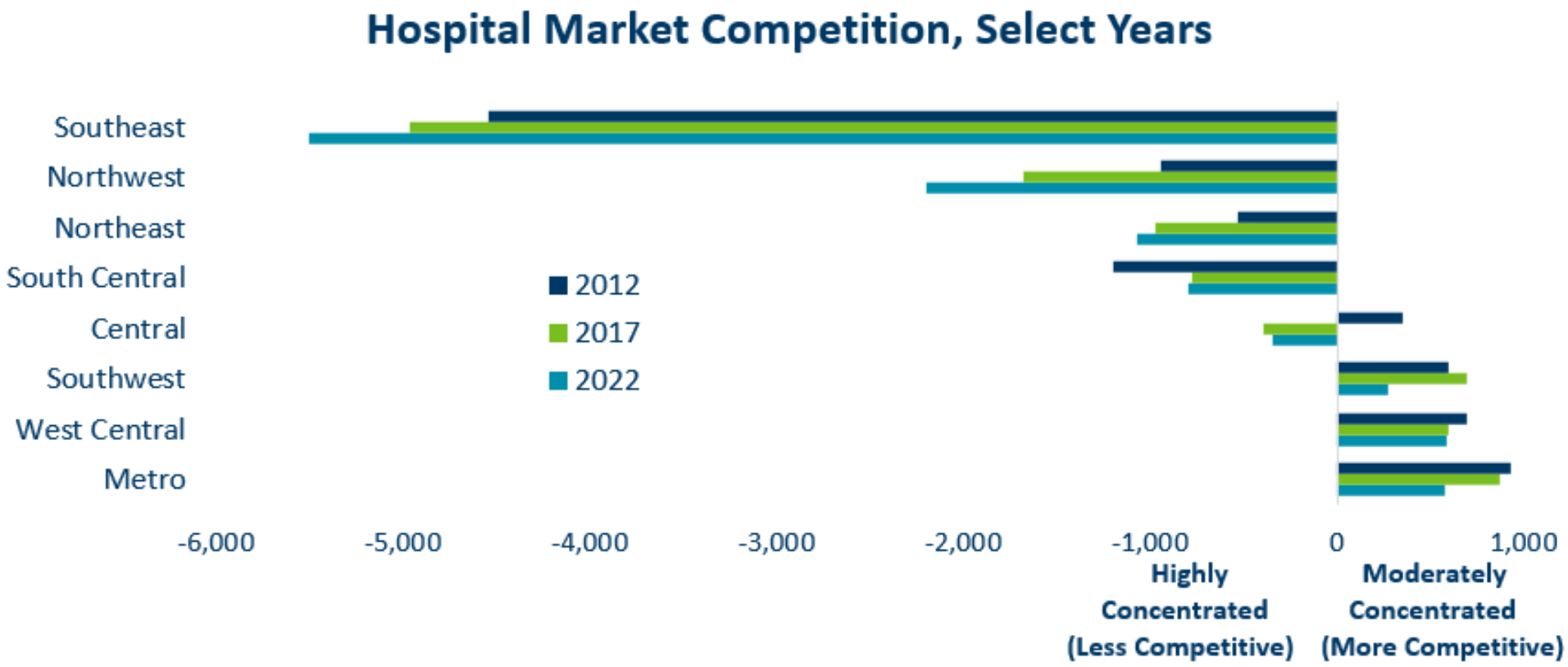
Financing

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.
- CAH status is associated with higher net incomes for hospitals.
- Rural residents experience higher monthly cost sharing as compared to their urban counterparts.
- Isolated rural hospitals provider 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.

Many hospital markets in Minnesota are not competitive

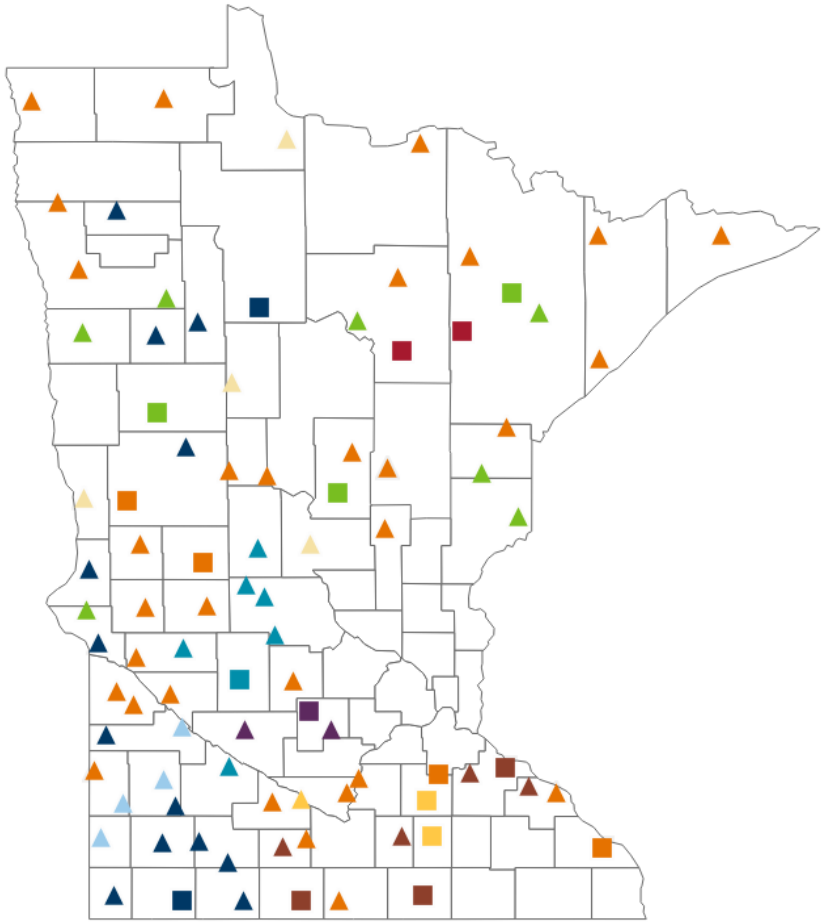


- Market concentration can lead to higher prices.
- Three out of eight regions had moderately concentrated markets in 2022.

Source: MDH/Health Economics Program calculation of Herfindahl-Hirschman competition (HHI) index based on net patient revenue from Hospital Annual Report Data, November 2023. 2022 data is considered preliminary. 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 5.

Summary of Slide

Over half of Minnesota's rural hospitals were affiliated with a larger provider group in 2022



	Hospitals	Available Beds
Sanford Health	15	406
Essentia Health	10	350
Mayo Clinic	7	223
CentraCare Health System	7	189
Avera Health	4	105
Catholic Health Initiatives	4	90
Allina Health System	3	109
HealthPartners, Inc./Park Nicollet Health Services	3	120
M Health Fairview	2	114
Unaffiliated or Single Rural Hospital in Hospital System	32	854
Total	**90**	**2,560**

▲ **Critical Access Hospital** ■ **Non-Critical Access Hospital**

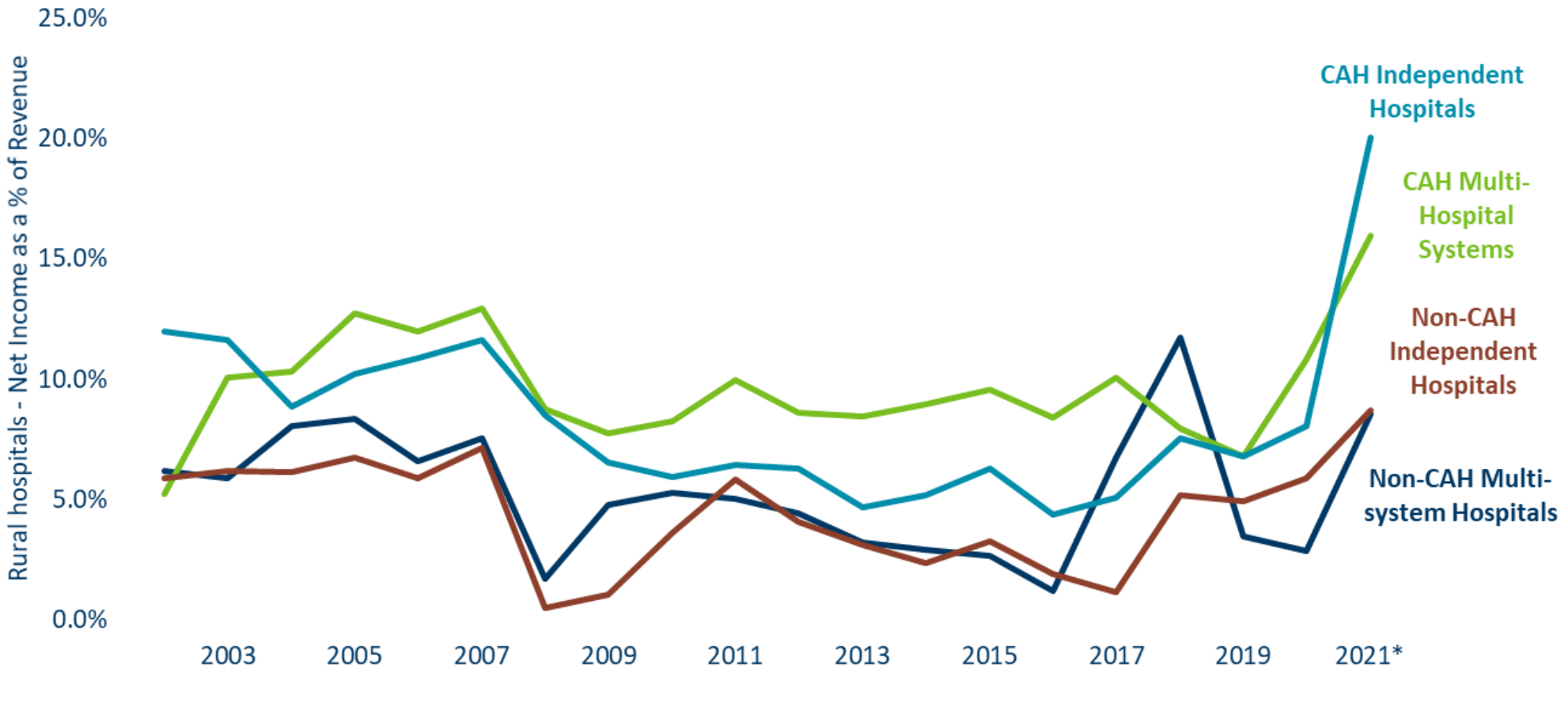
Hospitals that are part of larger systems:

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

Hospitals are classified based on RUCA zip code. Health care systems are ordered by total number of hospitals in descending order. Data does not include urban hospitals. Locations are plotted by zip code and may not be exact.
Source: MDH Health Economics Program analysis of hospital annual reports, November 2023.
Summary of Slide

Of rural hospitals, Critical Access Hospitals have higher net income as a percent of revenue

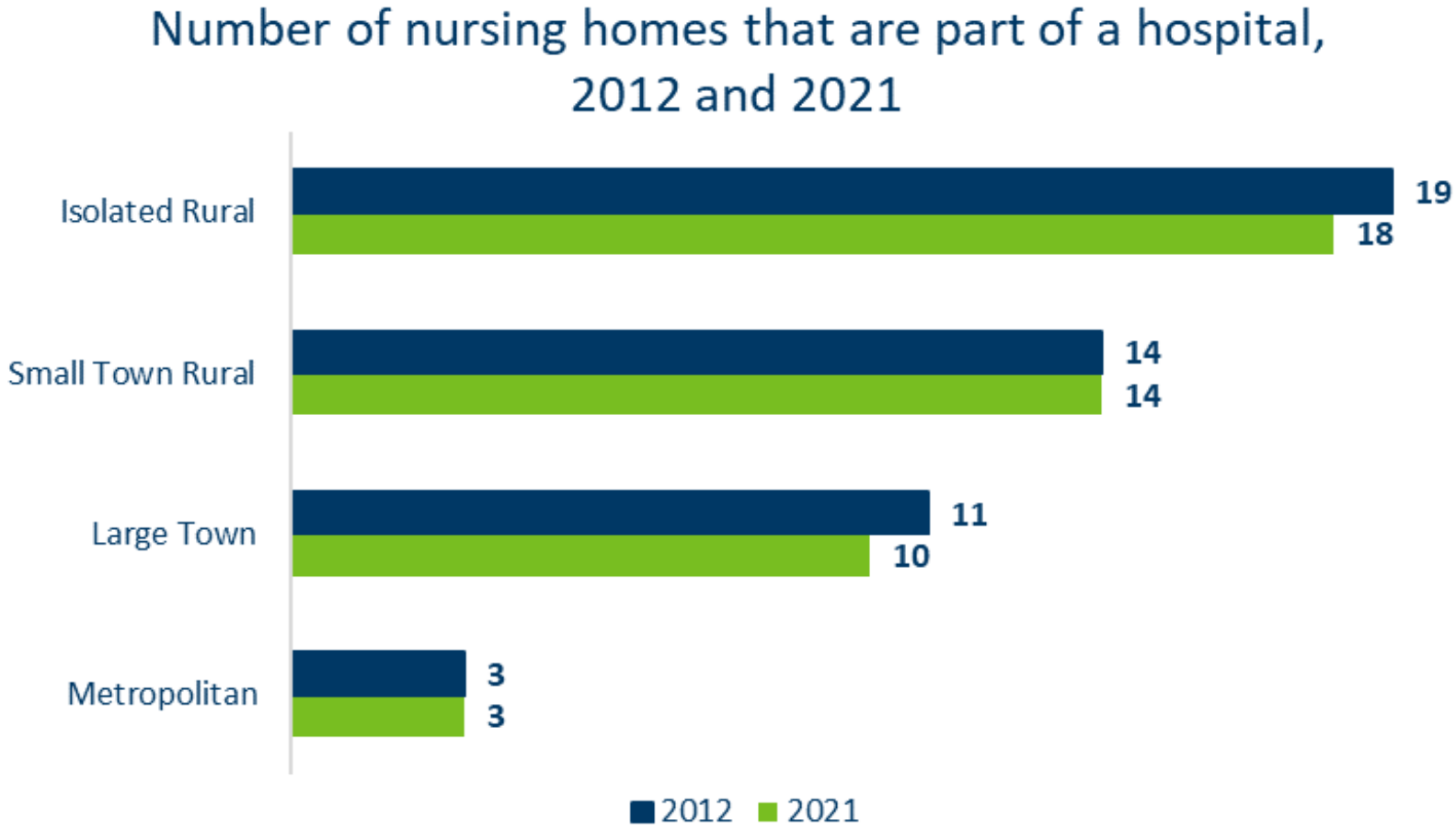
- All rural hospitals saw an increase in net income as percent of revenue in 2021, likely due to COVID-19 funding.
- CAHs had higher percentages of net income than non-CAHs.



*Preliminary data. Does not include urban hospitals.
Source: MDH Health Economics Program analysis of hospital annual reports, October 2022.
Summary of Slide

Rural areas have seen slight declines in nursing homes attached to hospitals in the past 10 years

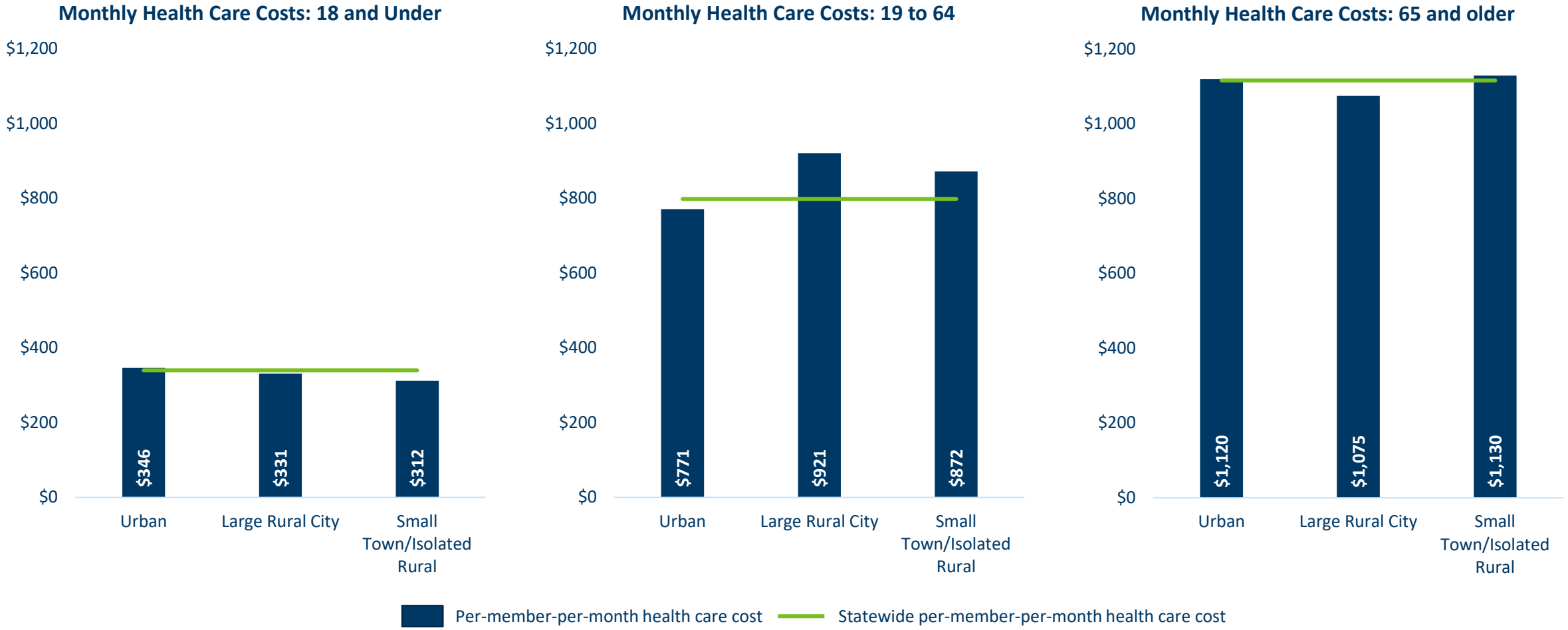
- Fewer urban hospitals have attached nursing homes.
- Having nursing home services attached to hospitals may lead to more days at home for patients.
- However, it may cause financial strain for hospitals if nursing homes are operating at low capacity.



Note: 2021 data is preliminary, numbers are based on charges for nursing homes reported by hospitals. Urban and Rural defined based on RUCA zip code designation.
Source: MDH Health Economics Program analysis of hospital annual reports, October 2022.

Summary of Slide

Monthly health care costs are higher in rural areas for adults, lower for children



Source: MDH Health Economics Program analysis of All Payer Claims Database Public Use Files - Member (2018). Small town rural and isolated rural are combined. Monthly health care costs are based on total dollars spent divided by number of months with enrollment across all types of coverage. For more information on the MNAPCD, or to get data: https://www.health.state.mn.us/data/apcd.

Summary of Slide

Minnesotans in rural areas experience higher monthly cost sharing regardless of health insurance coverage type

Higher cost sharing in rural areas could be related to:

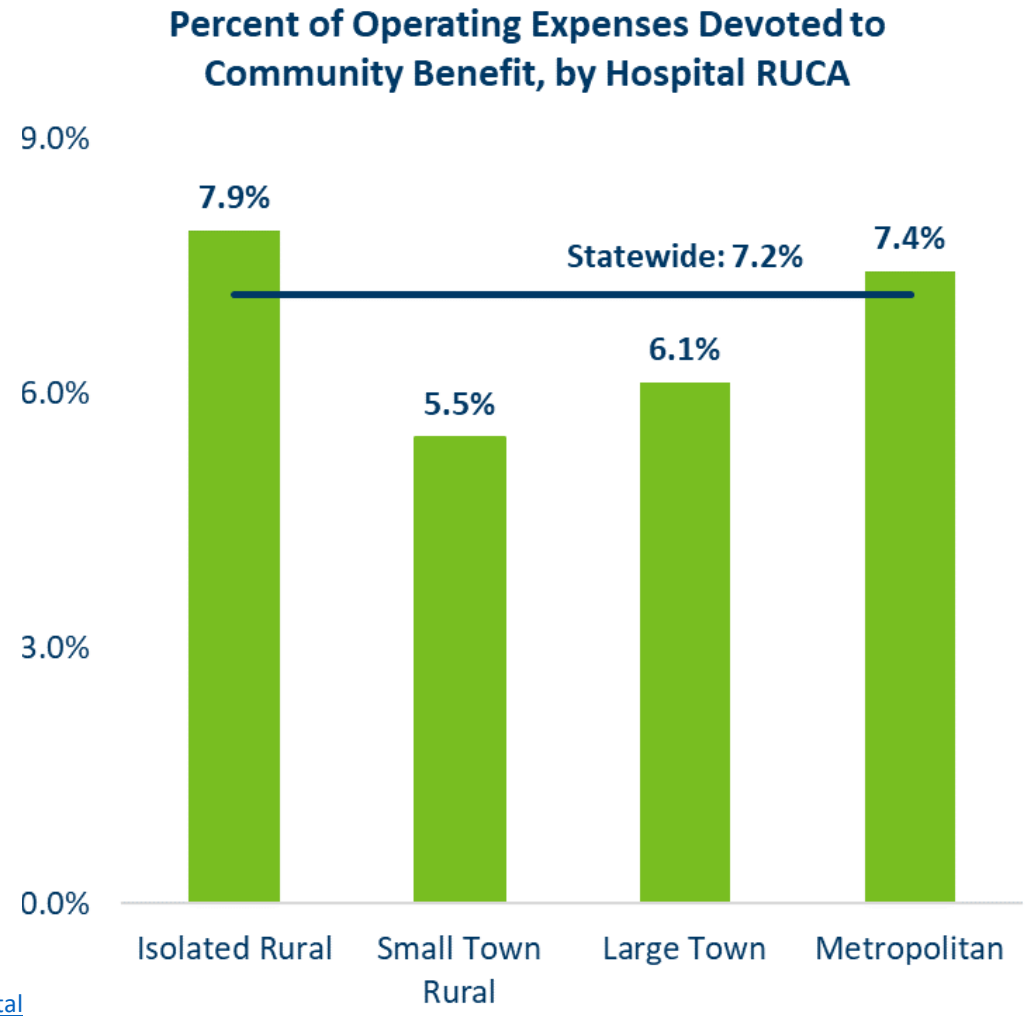
- Provider network differences.
- Health status differences.
- Different health plan options available.

Source: MDH Health Economics Program analysis of All Payer Claims Database Public Use Files - Member (2018). Small town rural and isolated rural are combined. Monthly claims costs are based on payments made by insurers for health care services received by members divided by number of months with enrollment in that type of coverage; monthly member cost sharing is based on cost sharing (deductible, copayment or coinsurance) that was expected to be paid by member for health care services received divided by number of months with enrollment. For more information on the MNAPCD, or to get data: https://www.health.state.mn.us/data/apcd.

Summary of Slide

Isolated rural hospitals devote a larger percentage 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.



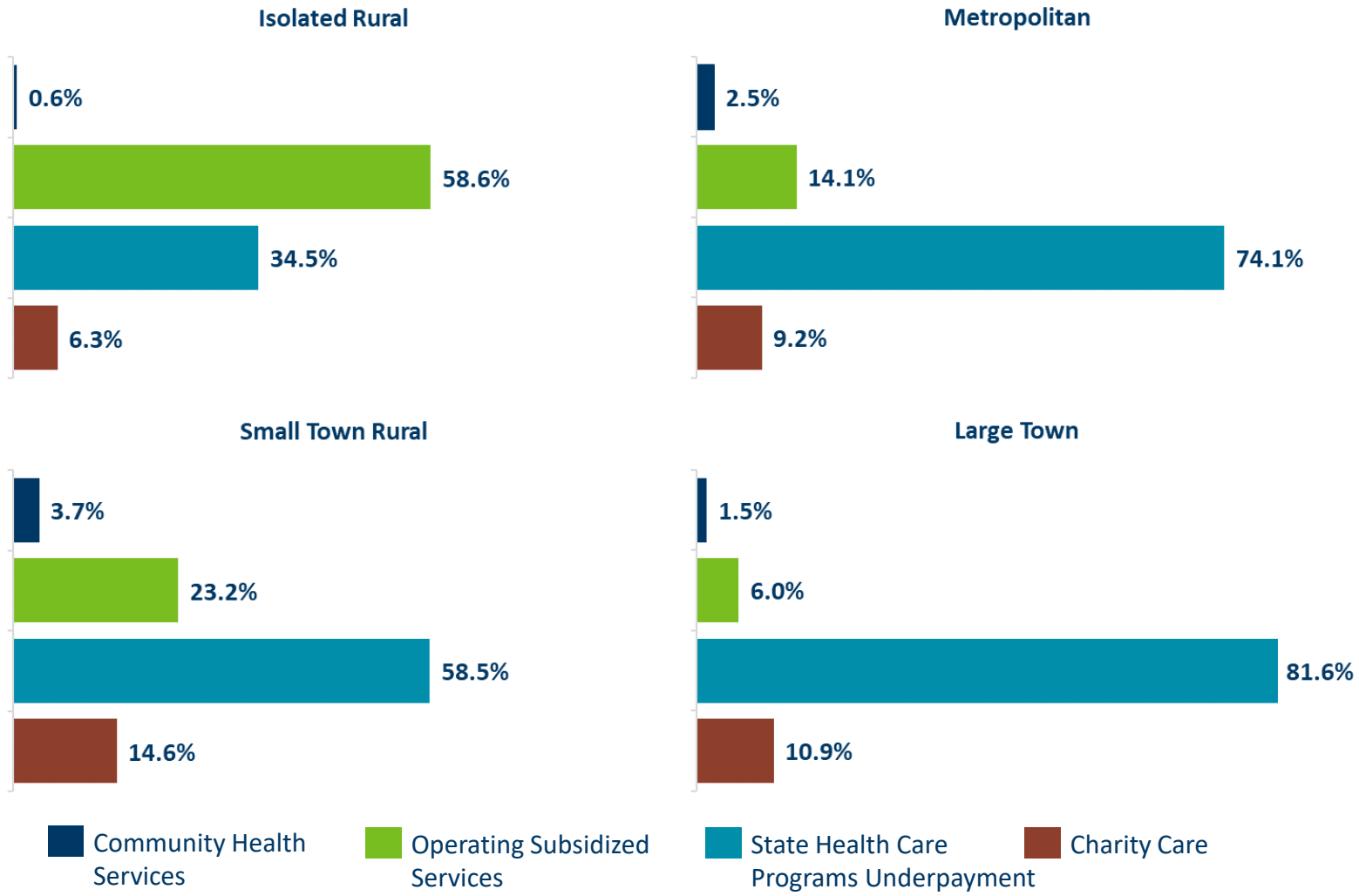
Source: MDH, Health Economics Program analysis of preliminary 2021 Hospital Annual Reports, October 2022, and MDH, Hospital Community Benefit Spending in Minnesota, 2016 to 2019
Summary of Slide

Rural hospitals rely more on Medicare revenue than their urban counterparts

	Critical Access Hospitals		Rural, Non Critical Access Hospitals		Statewide Community Hospitals	
	2012	**2021[1]**	**2012**	**2021[1]**	**2012**	**2021[1]**
Medicare	42.6%	45.8%	33.9%	36.5%	30.6%	33.2%
State Public Programs[2]	9.7%	11.4%	11.8%	11.7%	12.3%	13.6%
Private Insurance	41.7%	37.3%	48.7%	45.0%	51.4%	48.4%
Self-Pay	4.1%	2.7%	4.4%	3.3%	3.7%	2.4%
Other Payers	2.0%	2.8%	1.3%	3.5%	2.1%	2.5%
Hospital Patient Revenue, All Payers	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

[1]2021 data is preliminary.
[2]Includes Medical Assistance and MinnesotaCare.
Percent shown is a percent of Hospital Patient revenue. Totals may not sum to 100% due to rounding.
Source: MDH Health Economics Program analysis of hospital annual reports, October 2022.
Summary of Slide

Community benefit for direct patient care is different across the state

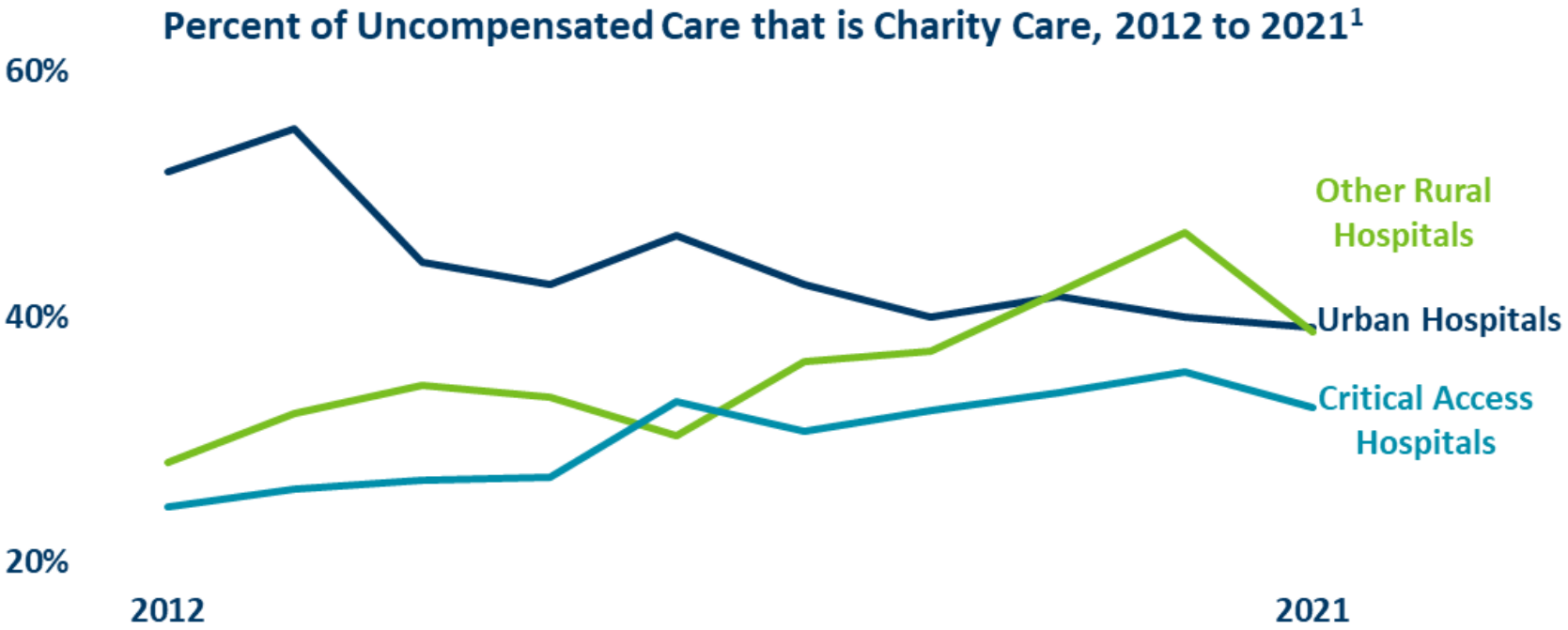


Source: MDH, Health Economics Program analysis of preliminary 2021 Hospital Annual Reports, October 2022.

Summary of Slide

- Isolated rural areas focus on operating subsidized services – such as keeping emergency rooms open and staffed.
- State health care programs underpayment – 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.

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 a decreasing percentage of charity care at urban hospitals.
- In 2021, the percentage of uncompensated care that was charity care decreased for all hospital types.
- Bad debt is not considered community benefit.

[1]2021 data is preliminary.
Source: MDH, Health Economics Program analysis of Hospital Annual Reports, October 2022.
Summary of Slide

DEPARTMENT OF HEALTH

Appendix of Data Sources Available Here:
https://www.health.state.mn.us/facilities/ruralhealth/docs/summaries/rhcmnsum.pdf

Health Economics Program

www.health.mn.state.us/healtheconomics

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

Phone: 651-201-4520

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