Rural Health Care in Minnesota: Data Highlights

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Page 1- Rural Health Care in Minnesota: Data Highlights

- This chartbook was created by the Minnesota Department of Health's Division of Health Policy.
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Technical Notes

Page 4 - Defining rural: Rural-Urban Commuting Area (RUCA) Codes

- This map depicts the state of Minnesota divided into Rural Urban Commuting Area Codes, rolled up to four different levels: Metropolitan, Large Town, Small Town Rural, and Isolated Rural.
- 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" means metropolitan; "rural" combines large town, small town rural, and isolated rural.
    - Source: Minnesota Department of Health. RUCAs were developed by the U.S. Department of Agriculture, Economic Research Service, and the University of Washington's WWAMI Rural Health Research Center.

Page 5 - Defining rural: Regions

- This slide contains a map showing the state of Minnesota divided into two regional groupings.
- The State Community Health Service Advisory Committee (SCHSAC) Regions are 8 regions based on groups of counties. SCHSAC Regions are focused on developing, maintaining and financing community health services.

The State of Rural Health Care in Minnesota

Page 7- Minnesota rural demographics

- This slide contains bullet point information on projected population group in Minnesota
- 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

Page 8 – The population of Minnesota is aging

- This chart depicts the growth of the population ages 0 to 14 and aged 65 or older in Minnesota between 2013, projected out to 2053; the total count are shown.
- 2013 Children 0-14: 1,066,254; Retirees 65+:752,728
- 2018 Children 0-14: 1,086,377; Retirees 65+:889,802
- 2023 Children 0-14: 1,104,463; Retirees 65+:1,045,472
- 2028 Children 0-14: 1,132,018; Retirees 65+:1,189,228
- 2033 Children 0-14: 1,157,821; Retirees 65+:1,253,082
- 2038 Children 0-14: 1,175,043; Retirees 65+:1,264,425
- 2043 Children 0-14: 1,193,386; Retirees 65+:1,241,454
- 2048 Children 0-14: 1,211,743; Retirees 65+:1,252,423
- 2053 Children 0-14: 1,226,526; Retirees 65+:1,265,719
- Source: Data is from https://mn.gov/admin/demography/data-by-topic/population-data/our-projections/ (vintage February 2021).

Page 9 – People living in rural Minnesota are more likely to have household incomes below the statewide median income

- This slide contains a chart showing the percent of people, by RUCA, with household incomes below the statewide median income in the 5-year period of 2015 to 2019. It also has a map which indicates, by census tract, if the median income is significantly higher, about the same, or significantly lower than the state median income.
- More than three out of four people living in rural areas have household incomes below the statewide median income
- Chart:
- Urban: 25.0% of people have household incomes below the statewide median;
- Large Rural City: 65.3% of people have household incomes below the statewide median;
- Small Town Rural: 80.6% of people have household incomes below the statewide median;
- Isolated Rural: 89.9% of people have household incomes below the statewide median;
- Map:
- 44.2% of census tracts have median income below the statewide median – these are largely concentrated in outstate areas, or in major cities.
- 30.2% of census tracts have median income about the same as statewide median – these are distributed throughout the state, with no clear pattern
- 25.7% of census tracts have median income above the statewide median – these are concentrated in areas around the cities of Minneapolis, St. Paul, Rochester, Duluth, St. Cloud, Fargo, ND, Grand Forks, ND and La Crosse, WI.
    - Source: MDH Health Economics Program analysis of US Census Bureau data from the American Community Survey 5-year estimate 2014 to 2019.

Page 10 – Areas of concentrated poverty occur in both rural and urban areas of the state

- This slide contains a chart showing the percent of the population below poverty, by RUCA, and has a map showing census tracts in the state with concentrated poverty, and either white non-Hispanic majority population or Non-white or Hispanic majority population.
- 'Concentrated poverty' is defined here as having more than one in five residents living at or below federal poverty guidelines for income at the census tract level.
- There are an estimated 122,000 people living in concentrated poverty areas in rural Minnesota.
- Chart:
- Urban: 9.1% of people have incomes below poverty;
- Large Town: 11.7% of people have incomes below poverty;

- Small Town Rural: 11.6% of people have incomes below poverty;
- Isolated Rural: 10.5% of people have incomes below poverty;
- Map:
- 4.8% of census tracts are concentrated poverty, with a majority non-white or Hispanic population
- 6.8% of census tracts are concentrated poverty, with a majority white non-Hispanic population
    - Source: MDH Health Economics Program analysis of US Census Bureau data from the American Community Survey 5-year estimate 2015 to 2019.

Structure of Rural Health System: An Overview

Page 13 - Rural Minnesotans are more likely to have public health insurance coverage, such as Medicare, Medicaid or MinnesotaCare

- This chart shows the percentage of Minnesotans who have different sources of health insurance coverage in 2021 by RUCA (Metropolitan, Large Town, Small Town Rural, Isolated Rural). The four different types of health insurance are Public (Medicare, Medical Assistance, MinnesotaCare, VA and TRICARE), Employer-sponsored (Group) Health Insurance, Individual Market, and Uninsured.
- Public: Metropolitan=38.3%; Large Town=47.3%*; Small town rural=51.8%*; Isolated rural=52.6%*
- Employer-sponsored (group) health insurance: Metropolitan=54.9%; Large Town=45.6%*; Small town rural=42.7%*; Isolated rural=38.4%*
- Individual market: Metropolitan=2.8%; Large Town=2.5%; Small town rural=3.0%; Isolated rural=3.3%
- Uninsured: Metropolitan=3.9%; Large Town=4.6%; Small town rural=2.5%; Isolated rural=5.7%
- Reasons for higher rates of public health insurance among rural Minnesotans:
- **Age**: people over 65 are more likely to have Medicare;
- **Lower Incomes**: more likely to be eligible for state public programs; and
- **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.

Page 14 - Hospital and nursing home services are available throughout the state

- This map shows the state of Minnesota, divided into the four RUCA groups, with the location of all hospitals indicated. There are 127 community hospitals, 76 of which are Critical Access Hospitals (CAHs), and 51 other hospitals.
- Critical Access Hospitals (CAHs) are smaller hospitals (fewer than 25 beds), mostly in rural areas, which receive higher reimbursement from Medicare, as long as they maintain certain services.
- 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 1 nursing home as of 2022.[4]
    - Source and Notes:
    - [1] Source: MDH Health Economics Program analysis of 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 Services, Table 11. https://www.health.state.mn.us/facilities/regulation/directory/docs/2022mdhdirectory.pdf.

Page 15 - Primary and specialty clinics are available throughout Minnesota

- This slide has two maps, one showing how primary care clinics are distributed across the state, and one showing how specialty care clinics are distributed across the state. Each clinic is represented as a dot, regardless of how many physicians practice there or the patient population. Locations are plotted by zip code and may not be exact.
- 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]
  - Notes and Sources:
  - 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.
  - [2] Source: https://www.mnachc.org/what-is-a-community-health-center

Page 16 - Person-centered, coordinated primary care available to most Minnesotans

- This map shows the locations of certified Health Care Homes designated clinics in Minnesota by county as of 2023. There are some counties that do not have Health Care Home certified clinics.
- 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 improve health and well-being.
- 80% of MN counties have at least one health care home clinic.
  - Source: MDH https://www.health.state.mn.us/facilities/hchomes/

Page 17 - Rural Emergency Medical Services (EMS) workforce is in crisis!

- This chart depicts the number of initial EMS certifications issued vs. those expiring from 2018-2021
- Chart:
- The number of EMS certifications issued in 2018, 2019, 2020, 2021, and 2022 were 3,840, 3,705, 2,759, 1,610, and 3,488 respectively.
- The number of EMS certifications that expired in 2018, 2019, 2020, 2021, and 2022 were 3,253, 3,649, 3,368, 4,014, and 4,039 respectively.
- Minnesota's mirrors in the nation in seeing decreases in the EMS workforce.
- There is an alarming gap between the numbers of EMS certifications issued vs. those expiring.
- In 2022, the state lost 551 certified EMS providers.
  - Source: Minnesota Emergency Medical Services Regulatory Board https://mn.gov/emsrb/data/data-personnel/

Page 18 - Access to critical trauma and stroke care is available throughout the state

- This slide notes that access to critical trauma care is available throughout the state.
- 126 designated trauma hospitals across four adult and two pediatric designation levels.
- 99 percent of Minnesotans live within 60 minutes of a trauma hospital.
- 76 percent of Minnesotans live within 60 minutes of a Level 1 or 2 trauma hospital.

- 72 percent of Minnesota children live within 60 minutes of a pediatric trauma hospital.
- 94 percent of Minnesotans live within a 30-minute drive of a designated Stroke System Hospital.
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    - Source: MDH Trauma System April 2023 https://www.health.state.mn.us/facilities/traumasystem/
    - MDH Stroke System July 2023 https://www.health.state.mn.us/diseases/cardiovascular/stroke/system.html

Rural Health Care Workforce

Page 21 – Registered nurses and licensed practical nurses make up the majority of the health care workforce in Minnesota

- This table shows the number of health care providers by profession in 2023 actively licensed to practice in Minnesota. This table excludes Respiratory Therapists and some other smaller licensed occupations, including: Chiropractic, Sports Medicine, and Occupational Therapy. Mental health providers include marriage and family therapists, social workers, psychologists, counselors, etc.
- Table:
- 140,168 Registered Nurses and Licensed Practical Nurses
- 28,247 Physicians
- 27,684 Mental Health Providers
- 14,022 Pharmacy Technicians
- 12,348 Advance Practice Registered Nurses
- 9,913 Pharmacists
- 8,469 Physical Therapy Professionals
- 4,366 Physician Assistants
- 4,082 Alcohol and Drug Counselors
- 4,012 Dentists
    - Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Health Licensing Boards, July 2023.

Page 22 – The majority of licensed health care providers work in metropolitan areas

- This chart shows the percentage distribution of licensed health care providers by Rural-Urban Commuting Area in comparison to the percentage distribution of the population in each Rural-Urban Commuting Area. The data for licensed health care providers in this chart include: physicians, physician assistants, respiratory therapists, oral health professions, pharmacy professions, physical therapy professions, and mental health professions.
- Very few licensed health care providers work in rural areas.
- Chart:
- 74% of the state's population lives in Metropolitan areas and 80% of licensed health care providers are working Metropolitan areas.
- 11% of the state's population lives in Large Town areas and 10% of licensed health care providers are working Large Town areas.
- 7% of the state's population lives in Small Town Rural areas and 6% of licensed health care providers are working Small Town Rural areas.
- 8% of the state's population lives in Isolated Rural areas and 4% of licensed health care providers are working Isolated Rural areas.
    - Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Health Licensing Boards, July 2023.

Page 23 - Rural areas face severe shortages of primary care physicians

- This chart shows the number of physicians by specialty per 100,000 people by Rural-Urban Commuting Area. The health care profession specialties included are: Family Medicine, Internal Medicine, Obstetrics/Gynecologists, General Pediatrics, General Psychiatry, and General Surgery. The counts by Rural-Urban Commuting Area are based on the primary practice address that physicians report to the Board of Medical Practice.
- Obstetrics/Gynecologists, Pediatricians, and Psychiatrists are in short supply in rural parts of the state.
- Chart:
- Family Medicine Physicians per 100,000 people in Minnesota: 46.1 in Metropolitan areas, 49.9 in Large Town areas, 71.1 in Small Rural Town areas, and 30.4 in Isolated Rural areas.
- Internal Medicine Physicians per 100,000 people in Minnesota: 44.8 in Metropolitan areas, 16.3 in Large Town areas, 10.0 in Small Rural Town areas, and 2.5 in Isolated Rural areas.
- Obstetric/Gynecology Physicians per 100,000 people in Minnesota: 12.4 in Metropolitan areas, 6.3 in Large Town areas, 5.9 in Small Rural Town areas, and 1.1 in Isolated Rural areas.
- General Pediatric Physicians per 100,000 people in Minnesota: 19.1 in Metropolitan areas, 8.7 in Large Town areas, 2.8 in Small Rural Town areas, and 1.1 in Isolated Rural areas.
- General Psychiatry Physicians per 100,000 people in Minnesota: 9.5 in Metropolitan areas, 5.1 in Large Town areas, 2.6 in Small Rural Town areas, and 0.5 in Isolated Rural areas.
- General Surgery Physicians per 100,000 people in Minnesota: 6.4 in Metropolitan areas, 7.4 in Large Town areas, 8.2 in Small Rural Town areas, and 1.6 in Isolated Rural areas.
    - Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Board of Medical Practice, July 2023.

Page 24 – Rural providers are older than their urban counterparts

- This chart shows the median age of health care providers by urban and isolated rural Rural-Urban Commuting Area codes. The health care professions included in these data are: Advance Practice Registered Nurses, Dentists, Licensed Practical Nurses, Pharmacists, Physicians, Physician Assistants, Psychologists, and Registered Nurses. Licensed Practical Nurses, Pharmacists, Physicians, Physician Assistants, Psychologists, and
- Chart:
- Advance Practice Nurses in Minnesota have a median age of 43 in urban area and a median age of 45 in isolated rural areas.
- Dentists in Minnesota have a median age of 46 in urban area and 46 in isolated rural areas.
- Licensed Practical Nurses in Minnesota have a median age of 48 in urban areas and a median age of 49 in isolated rural areas.
- Pharmacists in Minnesota have a median age of 41 in urban areas and a median age of 44 in isolated rural areas.
- Physicians in Minnesota have a median age of 47 in urban areas and a median age of 59 in isolated rural areas.
- Physician Assistants in Minnesota have a median age of 37 in urban areas and a median age of 44 in isolated rural areas.
- Psychologists in Minnesota have a median age of 55 in urban areas and a median age of 64 in isolated rural areas.
- Registered Nurses in Minnesota have a median age of 43 in urban areas and a median age of 45 in isolated rural areas.
    - Source: MDH Office of Rural Health and Primary Care analysis. Data provided by Health Licensing Boards, August July 2023.

Page 25 – One in three rural physicians plan to leave the workforce within the next five years

- This chart shows the percentage of health care providers who plan on retiring from their profession in the next 5 to 10 years. There is a comparison between the urban and isolated rural providers defined by the Rural-Urban Commuting Area codes. The survey categories used for to show these data are as follows: Plan to leave in 5 years or less, plan to leave within 6 to 10 years, and plan to leave in more than 10 years.
- Chart:
- 19% of urban physicians and 35% of isolated rural physicians plan to leave their profession in 5 years or less.
- 19% of urban physicians and 20% of isolated rural physicians plan to leave their profession in 6 to 10 years.
- 63% of urban physicians and 44% of isolated rural physicians plan to leave their profession in more than 10 years.
    - Source: MDH Office of Rural Health and Primary Care, Physician Workforce Survey, Feb. 2023 - Nov. 2023.

Page 26 – Minnesota has 419 designated health professional shortage areas

- This map shows the counties in the state of Minnesota that are designated as low-income and geographic Health Care Professional Shortage Areas for dental professions. Out of the 54 counties with the designation for dental Health Care Professional Shortage Area 44 of them include full counties, 10 counties have partial designation, and there are 33 counties without a designation.
- This map shows the counties in the state of Minnesota that are designated as low-income and geographic Health Care Professional Shortage Areas for primary care physicians. Out of the 75 counties with the designation for primary care physician Health Care Professional Shortage Area 29 of them include full counties, 46 counties have partial designation, and there are 12 counties without a designation. These data are from U.S HRSA, July 2022. Last accessed Nov 8, 2022.
    - Source: https://www.health.state.mn.us/facilities/underserved/designation.html
    - Source: https://www.ruralhealthinfo.org/charts/5?state=MN

Availability of Health Care Services in Rural Minnesota

Page 29 - Rural hospitals saw surgery service declines due to hospital closures, consolidation, or service loss over the past decade

- This table shows the change in hospital service lines between 2012 and 2021 at rural hospitals. The table provides the number of rural hospitals with the service in 2012, the number of hospitals that closed/consolidated, lost service, or added services between 2012 and 2021, and then the number of hospitals with services available in 2021. Then it shows the percent change between 2012 and 2021.
- Over this time period, rural hospitals lost inpatient and outpatient surgery, and renal dialysis services. Much of this loss was due to hospitals losing services, as opposed to hospital closure or consolidation.
- Rural hospitals saw increases in outpatient psychiatric services and advanced diagnostic imaging services, due to hospitals adding these service line.
    - 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.

Page 30 - Nine Minnesota counties lost hospital birth services between 2012 and 2021

- These two maps show the change in availability of obstetrics services within each Minnesota county between 2012 and 2021. The latter year also highlights nine counties that these services were no longer available in 2021 when there was availability within the county in 2012 and three counties that are planning to end birth services in 2022.

- The nine counties that lost services are: Cook, Faribault, Freeborn, Koochiching, Lac Qui Parle, Mille Lacs, Wabasha, Watonwan, and Wilkin.
- The three counties that will lose services in 2022 are: Chippewa, Isanti, and Renville.
- 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: MDH 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 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.

Page 31 – Other counties had changes in cardiac and mental health beds over the past decade

- These two maps depict the counties that had changes in mental health and cardiac beds between 2013 and 2022.
- Counties that added mental health beds: Anoka, Dakota, Freeborn, Kandiyohi, Olmsted, Steele, Todd, and Wright
- Counties that lost mental health beds: Blue Earth, Crow Wing, McLeod, Mower, Pennington, Ramsey, St. Louis, Stearns, Wadena, and Winona
- Counties that kept the same number of mental health beds: Beltrami, Brown, Hennepin, Isanti, Lyon, Meeker, Mille Lacs, and Otter Tail
- Counties that added cardiac beds: Anoka, Dakota, Hennepin, Renville, and Stearns
- Counties that lost cardiac beds: Carlton, Douglas, Itasca, Olmsted, Otter Tail, Ramsey, St. Louis, Wadena, and Winona
- Counties that kept the same number of cardiac beds: Carver, Lincoln, Swift, Wright, and Yellow Medicine
- Statewide, 10 mental health beds were lost, and 50 cardiac beds were lost between 2013 and 2022.
    - Note: Counties not listed do not have dedicated beds in that category.
    - Source: MDH Health Economics Program analysis of hospital annual reports, November 2023, 2022 data is considered preliminary.

Page 32 - The relative decline in nursing homes and nursing home beds was greater in rural Minnesota between 2012 and 2021

- This map shows the percent change in the number of nursing home beds by county in Minnesota between 2012 and 2021. Many counties that lost nursing home beds were in rural areas.
- The percent change in nursing home beds ranged from an increase of 46.2% (Freeborn County) to a decrease of 100% (Red Lake County).
- Twenty-seven counties lost nursing home beds: Carver, Cass, Clearwater, Faribault, Goodhue, Grant, Hennepin, Isanti, Kandiyohi, Koochiching, Lac Qui Parle, Lincoln, Lyon, Mower, Murray, Nicollet, Nobles, Norman, Otter Tail, Pope, Red Lake, Renville, Rice, Roseau, St. Louis, Steele, Winona, and Yellow Medicine.
- Seven counties gained nursing home beds: Anoka, Chisago, Freeborn, Olmsted, Ramsey, Stearns, and Washington.
- 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 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 2012 and 2021 nursing facility counts and capacity from the Minnesota Department of Health, Health Regulation Division.

Health Care Use in Rural Minnesota

Page 36 - Rural and urban residents report about the same number of unhealthy days

- The first chart shows the average number of unhealthy days in the past 30 days that residents experienced in urban and rural areas of Minnesota. Minnesotans in rural areas reported a statistically similar average number of physically unhealthy days in the past 30 days (3.5) as compared to Minnesotans in urban areas (3.2). There was also no difference for mentally unhealthy days between rural (4.0) and urban (4.4).
- The second chart shows the percent of Minnesotans who reported a chronic condition, by urban and rural areas. Minnesotans in rural areas were equally likely to report having a chronic condition (42.1%) as compared to Minnesotans in urban areas (40.9%).
- 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]
    - [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.
- 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]
    - [2] Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death on CDC WONDER Online Database, released 2021.

Page 37 - Minnesotans in Rural Areas have to travel longer to get inpatient services – especially mental health services

- This chart shows the approximate travel time in minutes for inpatient hospital stays for patients seen in Critical Access Hospitals, urban ZIP codes, rural ZIP codes, and statewide. The major categories of hospital stays are mental health/substance abuse, maternity/neonatal care, and other medical-surgical care. Non-metropolitan ZIP codes are classified as 'rural' using RUCA.
- Mental health/substance abuse services: Critical Access Hospitals=82 minutes; urban=25 minutes; rural= 80 minutes; statewide=36 minutes.
- Maternity/neonatal services: Critical Access Hospitals=29 minutes; urban=17 minutes; rural=42 minutes; statewide=23 minutes.
- Other medical-surgical services: Critical Access Hospitals=28 minutes; urban=21 minutes; rural=67 minutes; statewide=34 minutes.
    - 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.

Page 38 - Rural Minnesotans have fewer problems accessing providers

- This chart shows the percentage of Minnesotans who indicate having a problem accessing a provider for four different reasons. The four reasons are 1) not able to get an appointment as soon as needed, 2) told by a clinic or doctor's office that they were not accepting new patients, 3) not able to get an appointment with desired provider, because provider was not in network, or 4) told by a clinic or doctor's office that they did not accept their health care coverage.
- Not able to get an appointment as soon as needed: Urban=22.4%; Rural=17.0%*.
- Told by a clinic or doctor's office that they were not accepting new patients: Urban=7.0%; Rural=4.7%*.
- Not able to get an appointment with desired provider, because provider was not in network: Urban=5.0%; Rural=4.0%.
- Told by a clinic or doctor's office that they did not accept their health care coverage: Urban=4.3%; Rural=2.8%*.
    - 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.

Page 39 - People in rural Minnesota had the most trouble getting primary care appointments as soon as they were needed

- This chart shows the percentage of Minnesotans who had trouble accessing different types of providers, among those who indicated they had problems accessing providers. The types of providers include primary care, specialist, dentist, or mental health.
- 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 (65.8%* rural; 59.3% urban) or a dentist (23.5%* rural; 17.3% urban) as soon as they needed.
- Rural Minnesotans also had more problems finding dentists that were accepting new patients.
- Not able to get an appointment as soon as needed: Primary care provider – Urban=59.3%, Rural=65.8%*; Specialist – Urban=44.7%, Rural=35.9%*; Dentist – Urban=17.3%, Rural=23.5%*; Mental Health – Urban=16.0%, Rural=8.1%*
- Told by a clinic or doctor's office that they were not accepting new patients: Primary care provider – Urban=32.9%, Rural=29.5%; Specialist – Urban=30.3%, Rural=29.3%; Dentist – Urban=28.4%, Rural=43.8%*; Mental Health – Urban=31.0%, Rural=22.1%
- Not able to get an appointment with desired provider, because provider was not in network: Primary care provider – Urban=27.9%, Rural=37.9%; Specialist – Urban=55.6%, Rural=41.7%; Dentist – Urban=27.7%, Rural=31.1%; Mental Health – Urban=22.0%, Rural=12.0%*
- Told by a clinic or doctor's office that they did not accept their health care coverage: Primary care provider – Urban=22.6%, Rural=36.8%*; Specialist – Urban=40.8%, Rural=43.7%; Dentist – Urban=34.6%, Rural=29.5%; Mental Health – Urban=21.9%, Rural=6.0%*
    - 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.

Page 40 – Rural Minnesotans had lower telehealth use

- This chart shows the percentage of Minnesotans that had either telephone or video telehealth visits and their internet access and its reliability.
- Rural Minnesotans had lower utilization of both phone and video visits.
- More rural Minnesotans lack internet reliable enough to use for a video visit.
- Had a telephone visit: Urban=18.0%; Rural=11.3%*.
- Had a video visit: Urban=23.5%; Rural=14.5%*.

- Have internet access at home or on their phone: Urban=95.2%; Rural=90.7%*.
- Have internet reliable enough for a video visit: Urban=91.3%; Rural=82.4*.
    - 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.

Page 41 – Most telehealth visits in the state were to primary care providers

- This chart shows the percentage of Minnesotans that had either telephone or video telehealth visits with different types of providers, among those who had telephone or video telehealth visits. The types of providers include primary care, specialist, mental health, or other. Other providers include dentists, alternative medicine providers, emergency rooms/urgent cares, or COVID testing sites.
- 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.
- Of those who had a telephone visit: Primary care provider – Urban=64.3%, Rural=57.9%; Specialist – Urban=38.1%, Rural=38.6%; Mental Health – Urban=25.4%, Rural=19.4%*; Other provider – Urban=3.2%, Rural=2.6%.
- Of those who had a video visit: Primary care provider – Urban=59.1%, Rural=49.9%*; Specialist – Urban=39.3%, Rural=40.9%; Mental Health – Urban=31.7%, Rural=31.0%; Other provider – Urban=2.2%, Rural=2.6%.
    - 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.

Page 42 – Most recent telehealth visits in the state were for mental health care in 2023

- This chart shows the type of care Minnesotans received at their most recent telehealth visit. The percentage of Minnesotans that had either telephone or video telehealth visits with different types of providers.
- Of those who had a telehealth visit, the most recent visit was with: video visit: Mental Health Care= 33.5%; Prescription Management=21.8%; Chronic Condition Care=20.5%; Urgent Care=20.0%; Other Services (behavioral health care, prenatal care, in-hospital care, emergency care)=14.9%; Preventive Care=10.9%.
    - Source: Minnesota Telehealth and Access Survey, 2023
    - 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.

Page 43- 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.
- This chart depicts the differences between urban and isolated rural, as defined by the Rural-Urban Commuting Area codes, in primary care physicians filling gaps in care in different specialty areas due to lack of specialists or availability for specialty services. Comparisons between primary care physicians filling in these gaps in care is categorized by those that say that they have never provided the specialty services and those that provide some level of care. The specialty areas included in these data are: mental health, obstetrics/gynecology, oral health, pediatrics, any type of specialty area outside of primary care, and a

category of other. The most common responses provided for other specialties listed include: dermatology, emergency medicine, and orthopedics.

- Chart:
- 75.1% of urban primary care physicians and 52.1% of isolated rural physicians said that they never provide care in a health care specialty area that is normally covered by a specialty physician. 24.8% of urban primary care physicians and 46.9% of isolated rural physicians said that they provide some level of care in a health care specialty area that is normally covered by a specialty physician.
- 17.2% of urban primary care physicians and 10.6% of isolated rural physicians said that they never provide care in mental health. 82.8% of urban primary care physicians and 89.4% of isolated rural physicians said that they provide some level of care in mental health.
- 49.2% of urban primary care physicians and 32.9% of isolated rural physicians said that they never provide care in obstetrics/gynecology. 50.8% of urban primary care physicians and 67.4% of isolated rural physicians said that they provide some level of care in obstetrics/gynecology.
- 49.2% of urban primary care physicians and 32.7% of isolated rural physicians said that they never provide care in oral health. 50.8% of urban primary care physicians and 67.1% of isolated rural physicians said that they provide some level of care in oral health.
- 40.0% of urban primary care physicians and 21.3% of isolated rural physicians said that they never provide care in pediatrics. 60% of urban primary care physicians and 78.7% of isolated rural physicians said that they provide some level of care in pediatrics.
- 67.9% of urban primary care physicians and 59.9% of isolated rural physicians said that they never provide care in other specialty areas. 32.1% of urban primary care physicians and 40.1% of isolated rural physicians said that they provide some level of care in other specialty areas.
    - Source: MDH - Office of Rural Health and Primary Care, Physician Workforce Survey, 2018.

Page 44 - Fewer adolescent patients in rural areas are screened for mental health or depression problems, though rates are improving

- This map and table depict mental health and/or depression screening rates for adolescents in Minnesota in 2020. The US Preventive Services Task Force recommends that all adolescents are screening for mental health concerns or depression.
- The map shows that higher screening rates were present in the Twin Cities area, Southeast Minnesota, East Central Minnesota, and around the Duluth and Brainerd Lakes areas. Parts of Northwest Minnesota, Southwest, and South Central Minnesota have screening rates below 50%.
- The table provides screening rates by geography:
- Metropolitan and Large City 2020=92%; 2022=93%
- Small Rural Town 2020=86%; 2022=90%
- Isolated Rural 2020=85%; 2022=89%
- Statewide 2020=91%; 2022=93%
    - 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.
- 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]
    - Source: 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.
- Early treatment may lead to better outcomes in the long term.

Page 45 - Prescription opioid use is higher in rural areas

- This map and chart depict prescription opioid use in Minnesota.
- The map shows county-level prescribed morphine milligram equivalents (MME) per covered person. The MME ranges from 178 to 1,670; most of northern Minnesota has rates of 568 or higher, while most of southern Minnesota has rates below that amount.
- The four counties with the highest MME, of 1,115 to 1,670 are Aitkin, Cass, Koochiching, and Mahnomen. Kanabec, Mille Lacs, and Pine counties have rates of 841 to 1,114.
- The chart shows opioid prescriptions per 100 covered persons by RUCA in 2012 and 2015.
- Metropolitan: 2012=64.6; 2015=57.0
- Large Town: 2012=74.0; 2015=64.5
- Small Town Rural: 2012=77.8; 2015=71.2
- Isolated Rural: 2012=77.8; 2015=70.4
    - 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

Financing

Page 48 – Many hospital markets in Minnesota are not competitive

- This chart shows the difference between actual competitiveness of State Community Health Services Advisory Committee (SCHSAC) hospital markets in three annual periods (2012, 2017, and 2022). The values are a 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.
- Metro: 2012=932; 2017=873; 2021=579
- West Central: 2012=698; 2017=601; 2021=589
- Southwest: 2012=593; 2017=697; 2021=272
- Central: 2012=355; 2017=-397; 2021=-340
- South Central: 2012=-1198; 2017=-775; 2021=-800
- Northeast: 2012=-533; 2017=-975; 2021=-1,071
- Northwest: 2012=947; 2017=-1,676; 2021=-2,200
- Southeast: 2012=-4,541; 2017=-4,962; 2021=-5,506
- Market concentration can lead to higher prices.
- Three out of eight regions had moderately concentrated markets in 2022.
    - Source: Source: MDH Health Economics Program analysis of hospital annual reports, November 2023. 2022 data is considered preliminary.
    - For more information on this index, visit the US Department of Justice website at https://www.justice.gov/atr/herfindahl-hirschman-index. SCHSAC Regions are defined on slide 5.

Page 49 – Over half of Minnesota's rural hospitals were affiliated with a larger provider group in 2022

- This map and table depict rural hospitals and whether or not they are affiliated with a larger provider group. Of the 90 rural hospitals in 2021, 54 were affiliated with a larger provider group or hospital system. Critical Access Hospitals, as well as non-Critical Access Hospitals are affiliated with larger hospital systems.
- Most of the provider groups were geographically based. Sanford Health is in Western Minnesota, though mostly in the Southwest; Essentia Health is in Northern Minnesota; Mayo Clinic is in Southeast and South Central Minnesota; Catholic Health Initiatives is in Central and West Central Minnesota; CentraCare Health

System is in Central Minnesota; Avera Health is in Southwest Minnesota; and Allina Health System is in South Central and South East Minnesota.
- Hospitals that are part of larger systems: 1) May offer increased access to specialty services only available in urban areas; 2) May increase financial viability; and 3) Lead to consolidation of services to fewer hospitals, meaning some services may be less available in rural areas.
- Sanford Health: Total Hospitals=15; Available beds=406
- Essentia Health: Total Hospitals=10; Available beds=350
- Mayo Clinic Health System: Total Hospitals=7; Available beds=223
- CentraCare Health System: Total Hospitals=7; Available beds=189
- Avera Health: Total Hospitals=4; Available beds=105
- Catholic Health Initiatives: Total Hospitals=4; Available beds=90
- Allina Health System: Total Hospitals=3; Available beds=109
- HealthPartners, Inc./Park Nicollet Health Services: Total Hospitals=3; Available beds=120
- M Health Fairview: Total Hospitals=2; Available beds=114
- Unaffiliated or Single Rural Hospital in Hospital System: Total Hospitals=32; Available beds=854
    - 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.

Page 50 - Of rural hospitals, Critical Access Hospitals have higher net income as a percent of revenue

- This chart shows hospital net income as a percent of revenue for the following four groups of rural Minnesota hospitals: Medicare Critical Access Hospital designation (CAH) that are part of multi-hospital systems, CAH hospitals that are independent, non-CAH hospitals that are part of multi-hospital systems, and non-CAH hospitals that are independent.
- Non-CAH Multi-Hospital Systems 2002=6.2%; 2003=5.9%; 2004=8.1%; 2005=8.4%; 2006=6.6%; 2007=7.6%; 2008=1.7%; 2009=4.8%; 2010=5.3%; 2011=5.0%; 2012=4.4%; 2013=3.2%; 2014=2.9%; 2015=2.6%; 2016=1.2%; 2017=6.8%; 2018=11.7%; 2019=3.5%; 2020=2.9%; 2021*=8.6%;
- CAH Multi-Hospital Systems 2002=5.2%; 2003=10.1%; 2004=10.3%; 2005=12.7%; 2006=12.0%; 2007=12.9%; 2008=8.7%; 2009=7.8%; 2010=8.3%; 2011=10.0%; 2012=8.6%; 2013=8.4%; 2014=9.0%; 2015=9.6%; 2016=8.4%; 2017=10.1%; 2018=8.0%; 2019=6.8%; 2020=10.8%; 2021*=16.0%;
- Non-CAH Independent Hospitals 2002=5.9%; 2003=6.2%; 2004=6.1%; 2005=6.7%; 2006=5.9%; 2007=7.1%; 2008=0.5%; 2009=1.0%; 2010=3.6%; 2011=5.8%; 2012=4.1%; 2013=3.1%; 2014=2.3%; 2015=3.3%; 2016=1.9%; 2017=1.2%; 2018=5.2%; 2019=4.9%; 2020=5.9%; 2021*=8.7%;
- CAH Independent Hospitals 2002=12.0%; 2003=11.6%; 2004=8.9%; 2005=10.2%; 2006=10.9%; 2007=11.6%; 2008=8.5%; 2009=6.5%; 2010=5.9%; 2011=6.4%; 2012=6.3%; 2013=4.7%; 2014=5.2%; 2015=6.3%; 2016=4.4%; 2017=5.1%; 2018=7.5%; 2019=6.8%; 2020=8.1%; 2021*=20.0%
- All 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.

Page 51 - Rural areas have seen slight declines in nursing homes attached to hospitals in the past 10 years

- This chart shows the number of nursing homes attached to hospitals in 2012 and 2021 by RUCA in Minnesota. The number of hospitals stayed the same in metropolitan areas and small town rural, but dropped by one each in large town and isolated rural areas.
- Metropolitan 2012=3; 2021=3;

- Large Town 2012=11; 2021=10;
- Small Town Rural 2012=14; 2021=14;
- Isolated Rural 2012=19; 2021=18
    - 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.

Page 52 - Monthly health care costs are higher in rural areas for adults, lower for children

- These three charts show monthly health care claims costs for Minnesotans living in Urban, Large Rural Cities, and Small Towns/Isolated Rural Areas (these are combined), based on patient zip code. Spending is based on claims submitted to health insurers. Chart 1 shows monthly health care costs for those aged 18 and younger, chart 2 shows monthly health care costs for those aged 19 to 64, and chart three shows monthly health care costs for those aged 65 and older.
- Chart 1: Monthly Health Care Costs, 18 and under. Urban=$346; Large rural city=$331; Small town/isolated rural= $312; statewide=$340.
- Chart 2: Monthly Health Care Costs, 19 to 64. Urban=$771; Large rural city=$921; Small town/isolated rural= $872; statewide=$798.
- Chart 3: Monthly Health Care Costs, 65 and older. Urban=$1,120; Large rural city=$1,075; Small town/isolated rural= $1,130; statewide=$1,116.
    - 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.

Page 53 - Minnesotans in rural areas experience higher monthly cost sharing regardless of health insurance coverage type

- These two charts show the distribution in monthly health care costs by insurance coverage type for Minnesotans living in Urban, Large Rural Cities, and Small Towns/Isolated Rural Areas (these are combined), divided by the amount covered by insurers for claims costs, and by individuals as part of cost sharing (such as deductibles, copayments and coinsurance).
- Commercial insurance: Urban=$450 insurer claims cost/$72 member cost sharing; Large rural city=$480 insurer claims cost/$91 member cost sharing; Small town/isolated rural=$462 insurer claims cost/$97 member cost sharing;
- Medicare: Urban=$1,140 insurer claims cost/$117 member cost sharing; Large rural city=$1,089 insurer claims cost/$131 member cost sharing; Small town/isolated rural=$1,060 insurer claims cost/$151 member cost sharing;
- Minnesota Health Care Programs (includes Medical Assistance (Medicaid) and MinnesotaCare): Urban=$677 insurer claims cost/$3 member cost sharing; Large rural city==$661 insurer claims cost/$5 member cost sharing; Small town/isolated rural=$672 insurer claims cost/$6 member cost sharing;
- 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.

Page 54 – Isolated rural hospitals devote a larger percentage of operating expenses to community benefit

- This chart depicts what percentage of hospital operating expenses are for community benefit in 2021, by RUCA category, as well as showing the overall statewide percent.
- Non-profit hospitals provide community benefit as part of their tax-exempt status and are required to report community benefit spending to the Minnesota Department of Health.
- Community benefit spending can be categorized into four broad categories: 1) Direct patient care or unreimbursed services; 2) Research and education; 3) Financial and in-kind contributions; and 4) Community activities.
- Most community benefit is in the "direct patient care" category.
- Statewide, hospitals devoted 7.2% of their operating expenses to community benefit.
- Hospitals in isolated rural areas devoted 7.9% of their operating expenses to community benefit.
- Hospitals in small rural towns devoted 5.5% of their operating expenses to community benefit.
- Hospitals in large towns devoted 6.1% of their operating expenses to community benefit.
- Hospitals in metropolitan areas devoted 7.4% of their operating expenses to community benefit.
    - Source: MDH, Health Economics Program analysis of preliminary 2021 Hospital Annual Reports, October 2022.
    - Additional information on community benefit is available in MDH, Hospital Community Benefit Spending in Minnesota, 2016 to 2019.

Page 55 - Rural hospitals rely more on Medicare revenue than their urban counterparts

- This table depicts the percent of patient revenue from different payers in 2012 and 2021 for Critical Access Hospitals (CAHs), rural hospitals that are not CAHs, and all hospitals statewide. Payers include Medicare, state public programs (Medical Assistance or Medicaid and MinnesotaCare), private insurance, self-pay (which includes uninsured), and other payers (such as workers' comp, auto insurance, VA or TRICARE, or Indian Health Services).
- Across all types of hospitals, the primary payers are Medicare and private insurance.
- Medicare has increased as a percent of revenues between 2012 and 2021, as the number of people with Medicare coverage has grown.
- Critical Access Hospitals have a larger percentage of their revenue from Medicare than private insurance, while other rural hospitals and statewide have private insurance as the largest source of patient revenue.
    - 2021 data is preliminary.
    - 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.

Page 56 - Community benefit for direct patient care is different across the state

- This chart depicts differences in how direct patient care community benefit is distributed between hospitals in different RUCAs in 2021.
- The four direct patient care categories are: 1) charity care (care that is provided for free); 2) state health care program underpayments (the difference between the cost of providing services to state public program enrollees and the amount reimbursed – this amount can be $0); 3) operating subsidizes services (the cost of keeping services always staffed regardless of use – such as trauma and emergency services, burn units, and neonatal intensive care units); and 4) community health services costs (costs of community education, community clinic services and free screenings, and self-help programs).
- 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.
- Isolated rural hospitals' distribution of community benefit for direct patient care: charity care=6.3%; state health care programs underpayment=34.5%; operating subsidized services=58.6%; community health services=0.6%.
- Small town rural hospitals' distribution of community benefit for direct patient care: charity care=14.6%; state health care programs underpayment=58.5%; operating subsidized services=23.2%; community health services=3.7%.
- Large town hospitals' distribution of community benefit for direct patient care: charity care=10.9%; state health care programs underpayment=81.6%; operating subsidized services=6.0%; community health services=1.5%.
- Metropolitan hospitals' distribution of community benefit for direct patient care: charity care=9.2%; state health care programs underpayment=74.1%; operating subsidized services=14.1%; community health services=2.5%.
    - Source: MDH, Health Economics Program analysis of preliminary 2021 Hospital Annual Reports, October 2022.

Page 57 - Most uncompensated care in rural hospitals is bad debt

- This chart depicts the percent of uncompensated care between 2012 and 2021 that is charity care.
- Hospitals provide uncompensated care (health care services that are received, but not fully paid for) in two ways. The first is bad debt, health care services are provided, and payment is expected but not received. The second is charity care, health care services are provided and payment is not expected. Charity care is part of hospital community benefit, bad debt is not.
- The divide between rural and urban hospitals has been decreasing in the past 5 years, due to decreasing percentage of charity care at urban hospitals.
- In 2021, the percent of uncompensated care that was charity care decreased for all hospital types.
- The percent of uncompensated care that is charity care between 2011 and 2020 was as follows:
- 2012: Urban hospitals=51.9%; critical access hospitals=24.5%; other rural hospitals=28.1%;
- 2013: Urban hospitals=55.3%; critical access hospitals=25.9%; other rural hospitals=32.2%;
- 2014: Urban hospitals=44.5%; critical access hospitals=26.7%; other rural hospitals=34.4%;
- 2015: Urban hospitals=42.7%; critical access hospitals=26.9%; other rural hospitals=33.5%;
- 2016: Urban hospitals=46.7%; critical access hospitals=33.1%; other rural hospitals=30.3%;
- 2017: Urban hospitals=42.7%; critical access hospitals=30.7%; other rural hospitals=36.3%;
- 2018: Urban hospitals=40.0%; critical access hospitals=32.3%; other rural hospitals=37.2%;
- 2019: Urban hospitals=41.7%; critical access hospitals=33.8%; other rural hospitals=42.1%;
- 2020: Urban hospitals=39.9%; critical access hospitals=35.5%; other rural hospitals=46.9%;
- 2021: Urban hospitals=39.1%; critical access hospitals=32.6%; other rural hospitals=38.7%
    - 2021 data is preliminary.
    - Source: MDH, Health Economics Program analysis of Hospital Annual Reports, October 2022.