HEALTH ISSUES FOR THE STATE OF NORTH DAKOTA







SCHOOL OF MEDICINE & HEALTH SCIENCES ADVISORY COUNCIL

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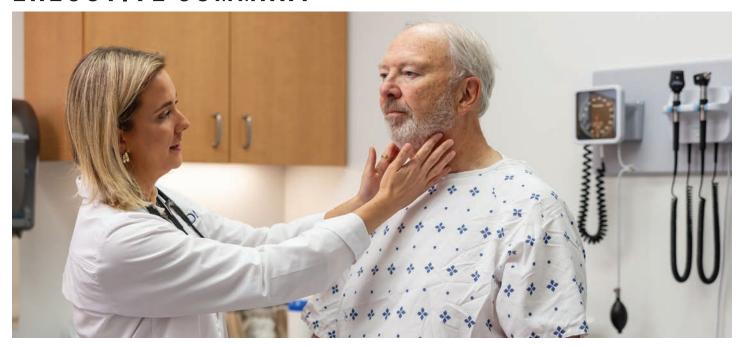
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Disclaimer: This *Biennial Report* represents the good-faith effort of the UND School of Medicine & Health Sciences and its Advisory Council to provide current and accurate information about the state of healthcare in North Dakota. Numerous sources were used in gathering the information found in this *Report*. We welcome corrections, which we will incorporate in subsequent editions of the *Biennial Report*.

^{*} Dr. Wynne stepped down from the Vice President and Dean positions, as well as Executive Secretary of the UND School of Medicine and Health Sciences Advisory Council, on Nov. 30, 2024. He was succeeded by Dean Marjorie Jenkins.

EXECUTIVE SUMMARY*



North Dakota, like the rest of the country, continues to grapple with a major healthcare delivery challenge: how to meet a burgeoning demand for healthcare services now and especially in the future with a supply of physicians and other healthcare providers that has not always kept pace with growing demand. The problem was exacerbated by the strain on healthcare workers from the SARS-CoV-2 (COVID) pandemic, leading to "burnout" and departure of vital healthcare providers from the healthcare field generally. The need for healthcare workers is particularly important in rural and western parts of North Dakota, where there has been a shortage (especially of primary care providers) since the start of statehood. The data that were reviewed for this Biennial Report (and prior reports) illustrate two major long-standing problems in North Dakota. One problem is an inadequate number of healthcare providers; however, the larger problem is a maldistribution of providers. The data show that healthcare providers are disproportionately located in the larger urbanized areas of the state, leaving many rural areas with a shortage. Without direct intervention, the difficulty of providing adequate healthcare in North Dakota will worsen over the coming decades from the aging of the population (including aging and eventual retirement of the healthcare workforce) that will increase the demand for healthcare services in those areas.

However, unlike much of the rest of the country, North Dakota has been directly addressing its healthcare delivery challenges over the past decade and a half through the implementation of a well-vetted plan for healthcare workforce development and improved healthcare delivery. That plan, the Healthcare Workforce Initiative

(HWI), was an outgrowth of both the First and Second Biennial Report on Health Issues for the State of North Dakota. Phase I of the HWI, which began by increasing medical and health sciences class sizes, along with increasing residency (post-MD degree training) slots, has already been fully implemented. Phase II of the plan, which includes further growth of residency slots, is being implemented now. When fully implemented, the HWI should, in the future, decrease North Dakota's healthcare delivery challenges through attainment of its four goals: 1) reducing disease burden, 2) retaining more healthcare provider graduates for care delivery within the state, 3) training more healthcare providers, and 4) improving the efficiency of the state's healthcare delivery system through an emphasis on team-based care delivery approaches. To accommodate the substantial class size expansions associated with the HWI, a new University of North Dakota (UND) School of Medicine & Health Sciences (SMHS) facility was constructed on UND's Grand Forks campus. The building was completed in 2016 and is fully functional. The largest government-funded building construction project in the state's history at the time was completed on time and on budget.

In accordance with the expectations specified in the North Dakota Century Code (NDCC 15-52-04), this *Eighth Biennial Report on Health Issues for the State of North Dakota (Report)* updates the first seven reports with an assessment of the current state of health of North Dakotans and their healthcare delivery system, along with an analysis of the steps that need to be taken to ensure that all North Dakotans will continue to have access to high-quality healthcare at an affordable cost now and in the future.

^{*} The full Biennial Report, along with all supporting data, is available at med.UND.edu/publications/biennial-report.



Figure 1.3. Population densities (number of people per square mile) of metropolitan, micropolitan, and rural counties in North Dakota, 2022.^{3,5}

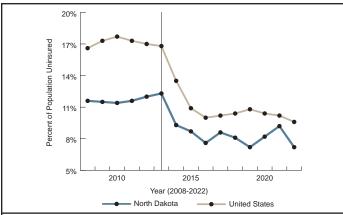


Figure 1.13. Uninsured population of North Dakota and the U.S., 2008-2022.¹⁸ The black vertical line represents the point in time when penalties for not having health insurance went into effect in 2013.

The Population of North Dakota: The current Report begins with an updated analysis of the population demographics in North Dakota, utilizing the most recently available data. Standardized definitions are used to define the state's population: metropolitan to denote areas with a core population of 50,000 or more; micropolitan (or large rural) to denote areas with core populations of 10,000 to 49,999; and rural to denote areas with a population below 10,000 (see Figure 1.3). More than half of North Dakota's current population resides in metropolitan areas, with one-quarter (25%) located in rural areas (see Table 1.2). This distribution represents a dramatic change from only a few decades ago, when more than half of the state's population was located in rural areas. North Dakota is one of the least densely populated states in the country, ranking 48th in population density, and tied for eighth in the country in the percentage of its state population that is 85 years of age or older. Because demand for healthcare increases proportionally with age, demand for healthcare services is especially pronounced in North Dakota. Such needs will only increase as the state's citizens grow older. In terms of health insurance, North Dakota has a lower rate of uninsured population when compared to the U.S. (see Figure 1.13) and the gap of uninsured population between metropolitan and micropolitan compared to rural has closed since 2013 to fall more in line with U.S. trends (see Figure 1.14). People in rural regions

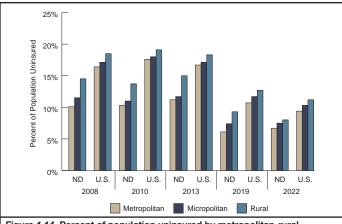


Figure 1.14. Percent of population uninsured by metropolitan-rural status for North Dakota and the U.S., selected years 2008-2022.18

Summary of demographics of North Dakota's population by metropolitan, micropolitan, and rural areas, 2022.³

Category	Metropolitan		Micropolitan		Rural	
Category	N	%	N	%	N	%
Total Population	392,722	50.6	188,201	24.2	195,951	25.2
Sex						
Male	199,916	50.1	98,776	24.7	100,653	25.2
Female	192,806	51.1	89,425	23.7	95,298	25.2
Age						
Under 20	102,649	26.1	52,234	27.8	52,529	26.8
20-44	151,579	38.6	68,862	36.6	53,316	27.2
45-64	82,571	21.0	40,502	21.5	49,412	25.2
65-84	48,506	12.4	22,597	12.0	34,224	17.5
85 and Older	7,417	1.9	4,012	2.1	6,470	3.3
Race						
White	335,909	85.5	161,828	86.0	158,688	81.0
Black	17,125	4.4	6,462	3.4	1,646	0.8
American Indian/ Alaska Native	8,075	2.1	3,112	1.7	25,097	12.8
Asian	9,018	2.3	2,210	1.2	1,246	0.6
Native Hawaiian/ Pacific Islander	1,064	0.3	265	0.1	130	0.1
Other	4,205	1.1	4,576	2.4	1,924	1.0
Two or More	17,326	4.4	9,748	5.2	7,220	3.7
Ethnicity						
Hispanic or Latino	13,362	3.4	11,762	6.3	8,065	4.1
Not Hispanic or Latino	379,360	96.6	176,439	93.8	187,886	95.9
Poverty						
Yes	43,717	11.4	17,088	9.5	23,402	12.4
No	339,028	88.6	163,014	90.5	164,987	87.6
Uninsured						
Yes	21,820	6.7	11,513	7.5	11,638	8.0
No	304,108	93.3	142,249	92.5	133,676	92.0

of North Dakota generally are older, poorer, and have less or no insurance coverage than people in non-rural areas, all of which are challenges to providing adequate healthcare (see *Table 1.2*). Rural regions continue to experience depopulation that will only exacerbate the current problem of healthcare access and delivery.

Social Drivers of Health in North Dakota: Various external factors, referred to as social drivers of health (SDOH), can affect health status and explain why some people are generally healthier than others (see *Figure 2.1*). SDOH consider the various circumstances in which people are born, live, learn, work, socialize, play, and age that affect a range of health outcomes. Circumstances that may impact health outcomes of individuals include the current social structure, economic factors, and physical aspects of a person's

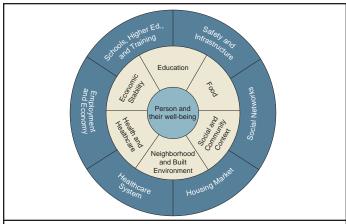


Figure 2.1. Social drivers of health.³ The innermost circle represents the individual, the middle ring represents an individual's immediate environment, and the outermost ring represents other outside influences on an individual's immediate environment.

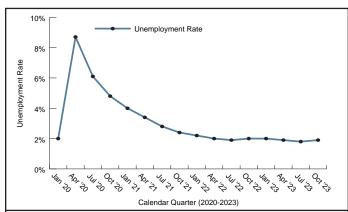


Figure 2.2. North Dakota unemployment rate by calendar quarter 2020-2023.4 North Dakota had an increase in the unemployment rate in the spring of 2020 followed by a steady decline and the rate remaining fairly level since April of 2022.

Table 3.3 Percent of adults reporting general health conditions, 2022.6

	, ,				
	2018	2019	2020	2021	2022
Overweight/Obese	65.8	65.6	64.3	63.2	64.5
General Health is Fair or Poor	13.9	13.9	12.1	13.0	14.3
1+ Days Poor Health	20.7	21.5	19.9	21.2	23.6
1+ Days Poor Phys. Health	33.1	33.6	26.0	32.1	34.5
1+ Days Poor Mental Health	36.2	34.2	34.7	36.4	39.1

environment (see *Figure 2.2*). Environments include home, school, workplace, neighborhood, city, and other community settings where a person spends a significant amount of time. Resources that contribute to an enhanced quality of life for a given population are likely to have a significant influence on positive health outcomes of the population. Examples of quality of life enhancing resources include safe and affordable housing, access to education, public safety, availability of healthy foods, local health services, and environments free from life-threatening toxins. Examining the six areas of SDOH (economic environment, education, food access, physical infrastructure, social and community context, and healthcare access) can demonstrate where disparities among



Figure 2.5. Low food access and food desert designated census tracts in North Dakota, 2019.³² Low food access is defined as 500 people and/ or 33% of the population of a census tract living more than one mile from a grocery store in urban areas and more than 10 miles from a grocery store in rural areas. Food deserts are census tracts designated as low access and low income.

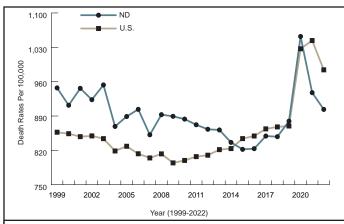
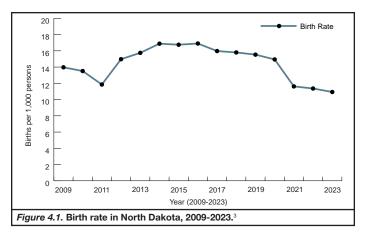
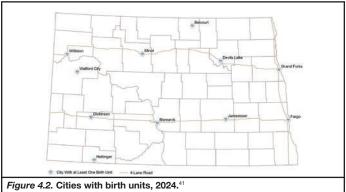


Figure 3.3. Changes in North Dakota mortality rates from 1999 to 2022 compared with the U.S., 2022.39

the population exist and strategies can be developed to address those disparities. Examples of disparities in North Dakota include food deserts (see *Figure 2.5*), areas of low access to healthcare professionals, and specific subsets of the population being less likely to be covered by health insurance.

The Health of North Dakota: The health of North Dakotans, in comparison with the rest of the U.S., is relatively good. When examining general health measures, North Dakotans are relatively healthier than the country as a whole. North Dakotans are less likely to report fair or poor health than the rest of the U.S. (see Table 3.3). North Dakotans also have a lower prevalence of both asthma and diabetes. However, in 2022, North Dakota had a higher percentage of overweight and obese individuals compared to the country as a whole. North Dakotans also tend to have a higher risk of some types of cancer. Additionally, North Dakota has led the nation in the number of deaths attributed to Alzheimer's disease. Previously, North Dakota had a higher mortality rate than the U.S. but that trend has shifted in a better direction in recent years. Nonetheless, the mortality rate in the U.S. and North Dakota worsened substantially in 2020, likely due both to the direct impact of the pandemic along with the indirect impact of the pandemic in





delaying necessary care for other conditions (see *Figure 3.3*). As of 2022, both mortality rates are trending downward.

Women's and Children's Health: When considering women's health in North Dakota, an important trend to be aware of is birth rate; specifically, the birth rate has been slightly decreasing over the past few years (see Figure 4.1). It is also important to consider barriers to women's healthcare in the state, one of which is access to care due to lack of appropriate provider types and women's health services. As of 2024, there are only 11 cities in North Dakota with birth units and those birth units show a strong association to the major highways in North Dakota (see Figure 4.2). When looking at workforce that specializes in women's health, around 78% of OB-GYNs in the state are based in metropolitan areas. Also, approximately one-fifth of Certified Nurse Midwives in the state work in rural areas. Children are another important group to consider in North Dakota, accounting for nearly one-fourth of the state's population. There are a variety of factors that impact children's health, including insurance, immunizations, and access to appropriate healthcare providers. While there are 78 general pediatricians in the state, nearly 80% practice in metropolitan areas.

Health of American Indians: North Dakota contains all or part of four federally recognized Tribes and one Tribal community located at least partially within the state. This includes the Three Affiliated Tribes (the Mandan, the Hidatsa, and the Arikara); the Standing Rock Reservation, home of the Standing Rock Sioux Tribe; the Spirit Lake Reservation, home of the Spirit Lake Tribe; and the

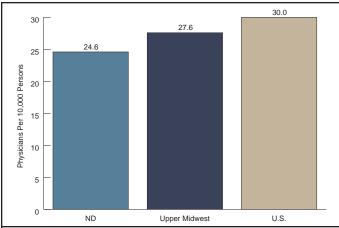
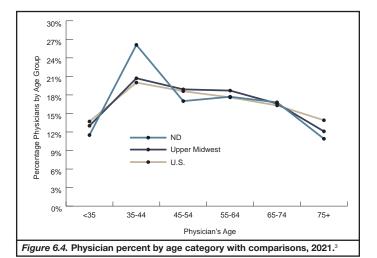
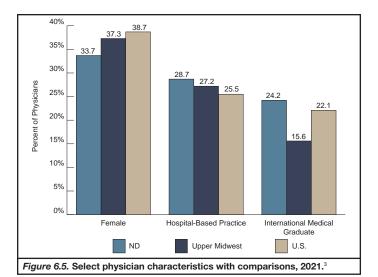


Figure 6.2. Number of physicians per 10,000 persons for North Dakota, the Upper Midwest, and the U.S. (excludes resident physicians), 2021.^{1,3}



Turtle Mountain Reservation, home to the Turtle Mountain Band of Chippewa Indians. The Sisseton Wahpeton Oyate Tribe also exists in the southeastern corner of North Dakota with a small amount of Tribal trust land, though much of the Tribal trust land is in South Dakota. North Dakota has the sixth largest American Indian population in the U.S. with nearly 60% of the American Indian population living on reservations in the state. The American Indian population of North Dakota experiences the same social drivers of health as the non-American Indian population but with compounding cultural and historical factors that uniquely influence the health of the population both positively and negatively.

Physician Workforce: The physician workforce in North Dakota has somewhat fewer physicians per 10,000 persons than the U.S. as a whole or the Midwest comparison group (see *Figure 6.2*), and although the gap had narrowed over the past three decades, it recently has widened. Our physicians are more likely to be male than elsewhere in the U.S. (see *Figure 6.5*). Previously, the physicians in North Dakota have been older when compared with the rest of the country, but a trend of younger physicians is beginning to emerge (see *Figure 6.4*). About one-fourth of the physician workforce is made up of international medical graduates, a little higher than the rest of



the country. The UND SMHS is an important source of physicians for the state, as half of the physicians in North Dakota received some or all of their medical training (medical school or residency or both) in-state as of 2023. In terms of a balance of trade, or the net import and export of medical school graduates, North Dakota has improved since 2013 when the net export was -370 graduates relative to 2023 where the net export was -168 graduates.

The patient-to-physician ratio is not equally distributed across the state. There are 38.6 physicians per 10,000 persons in metropolitan areas, 15.2 physicians per 10,000 persons in micropolitan areas, and 5.9 physicians per 10,000 persons in rural areas of North Dakota. Without the effects of the HWI, current estimates indicate a shortage of some 260 to 360 physicians by 2025, the consequence of a heightened need for healthcare services as the Baby Boom generation ages and from retirements in the aging physician workforce (one-quarter of the physicians in North Dakota are 65 years of age or older).

Primary Care Workforce and Specialist Care Workforce: The state's primary care physicians include family medicine, general internal medicine, and general pediatrics. Physician assistants and nurse practitioners also serve as primary care providers throughout North Dakota. The density of primary care providers in North Dakota is higher in metropolitan regions than in micropolitan and rural regions, with eight counties currently without primary care providers (see *Figure 7.1*). Residency training in North Dakota is an especially important conduit of primary care physicians, since nearly half (46%) of them have graduated from UND's medical school; more than half completed a residency within the state (51%). Almost four out of five (79%) of the family medicine physicians in the state attended the UND School of Medicine and Health Sciences and/or an in-state residency program.

North Dakota has relatively fewer specialists in general pediatrics as well as obstetrics/gynecology when compared to the Upper Midwest or the rest of the U.S. (see *Figure 7.8*). North Dakota

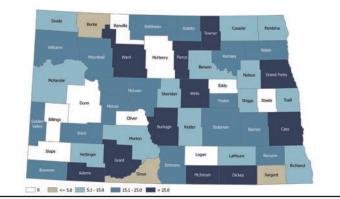


Figure 7.1. Primary care providers per 10,000 North Dakota residents, by county, 2023. $^{\rm 1,2}$

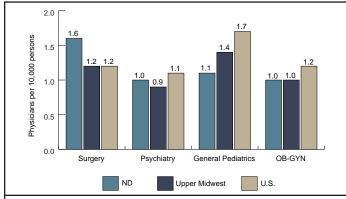


Figure 7.8. Surgeons, psychiatrists, general pediatrics, and OB-GYNs per 10,000 persons in North Dakota with comparisons, 2021.3.4

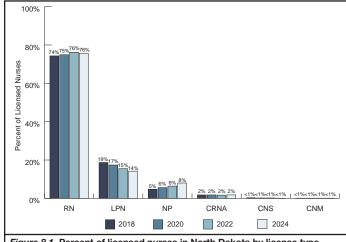


Figure 8.1. Percent of licensed nurses in North Dakota by license type and year, 2024.

does have more surgeons per 10,000 persons when compared to the Upper Midwest and the U.S. We have about the same relative number of psychiatrists as other Midwest states and the rest of the United States, although 78% are based out of either Grand Forks or Cass counties, leaving the western parts of North Dakota with a significant shortage.

Nursing Workforce: The state's nursing workforce was examined using new licensure data. The state has shown a stable trend of Registered Nurses (RNs), an increase of Advanced Practice Registered Nurses (APRNs), and a decline in Licensed

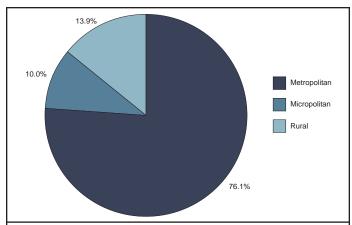


Figure 8.3. Nurse employer location in North Dakota by metropolitanrural designation, 2024.

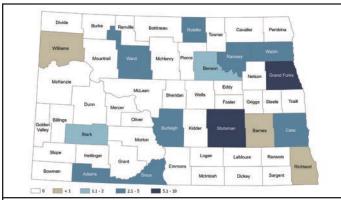


Figure 9.2. Rate of psychologists per 10,000 North Dakota residents, by county, 2024. $^{\!\scriptscriptstyle 2}$

Practical Nurses (LPNs) from 2018 to 2024 (see Figure 8.1). The representation of APRNs between 2018 and 2024 was relatively stable with an increase from 5% to 8% of the state's nursing workforce. The representation of LPNs decreased from 19% to 14%, and RNs remained stable at 76%. Despite the decline in the percent of LPNs, there was an increase of more than 2,100 nurses licensed in the state of North Dakota between 2018 and 2024. The increase in nurses overall was due to the increase of more than 1,900 RNs between 2018 and 2024. The current 2025 distribution of licensed nurses in North Dakota is represented by a majority of RNs (76%), followed by LPNs (14%) and APRNs (8%). A majority of RNs and LPNs were trained in-state, with the highest numbers working in an outpatient setting. A majority of nurse practitioners were trained in North Dakota with the highest percentage working in primary care. While a majority of nurses licensed in North Dakota have employers within the state, nearly 1 in 3 has an employer that is out-of-state (29.6%). Although a nursing presence is especially noteworthy in rural regions of the state, the majority of nurses work in metropolitan areas (see Figure 8.3).

Behavioral Health Non-Physician Healthcare Workforce in North Dakota: Most behavioral health professionals and nonphysician providers are found in metropolitan areas. This includes psychiatrists, psychologists, counselors, licensed addiction

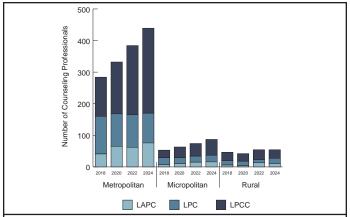
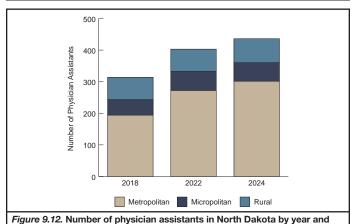


Figure 9.4. Number of counseling professionals in North Dakota by year and metropolitan-rural designation, 2018-2024.³ Data used for this graphic represent those counselors with a valid location in North Dakota.



Figure 9.8. Rate of social workers per 10,000 North Dakota residents, by license type and by county, 2024. $^{\rm 6}$



metropolitan-rural designation, 2018-2024.¹¹ Data used for this graphic represent those physician assistants with a valid location in North Dakota.

counselors, social workers, occupational therapists, physical therapists, physician assistants, medical laboratory scientists, pharmacists, and dentists (see *Figures 9.2* and *9.8*). The largest behavioral health workforce occupation in North Dakota is social workers, with more than 2,000 licensed in the state. When comparing geographic distribution, approximately three-fourths of counselors and social workers are in metropolitan areas. Despite this distribution of social workers and counselors being located mostly in metropolitan areas, the majority of North Dakota counties

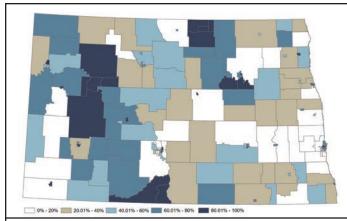


Figure 10.1. Social Vulnerability Index Quintiles for North Dakota Census Tracts, 2022.⁵

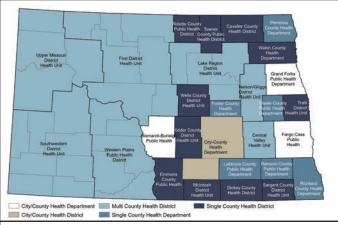


Figure 10.2. Public Health Units in North Dakota, 2024.6

maintain a supply of counselors and social workers. Addiction counselors are less likely to be in metropolitan areas than their peers, with only 65% in metropolitan areas. Between 2018 and 2024, all behavioral health professions in North Dakota showed an increasing trend in the number of licensed behavioral health practitioners in the state. This trend is particularly pronounced for counselors (see Figure 9.4). When the trend over time is further broken down by metropolitan-rural status, the number of counselors, social workers, and occupational therapists increased in metropolitan areas while the trend varied in micropolitan and rural areas. When examining those occupations with programs at the SMHS, the geographic distribution varies between metropolitan and rural areas. Physical therapists are more likely to practice in metropolitan areas (67%) along with physician assistants (69%) (see Figure 9.12) and occupational therapists (74%). However, the metropolitan-rural split among medical laboratory scientists is less pronounced, with about 61% practicing in metropolitan areas and 39% being in either micropolitan or rural areas.

Public Health Planning for the Future: North Dakota's 28 Local Public Health Units (LPHUs) have multiple organizational structures that result in varied types of authority (see *Figure 10.2*). While all LPHUs offer the same core functions, the size of the service area

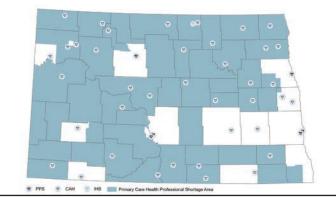


Figure 11.1. North Dakota hospitals and Health Professional Shortage Areas, 2024.1

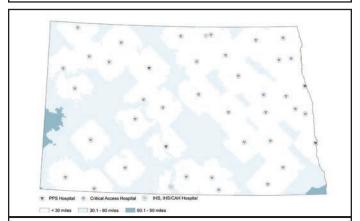


Figure 11.10. North Dakota hospital distance buffers, 2024. Data note: The spatial software uses a road network that may not be adequately representative of roads on Tribal Nations.

and volume of population vary widely depending on whether an LPHU is a single- or multi-county entity, and whether the LPHU contains or is near to one of the larger cities. This creates service delivery challenges due to travel distance and staffing patterns that are a result of the relative resources of each LPHU. This can be exacerbated by varied levels of vulnerability for the population of an LPHU (see *Figure 10.1*). In recent years, largely due to the SARS-CoV-2 pandemic, the public's trust of public health has diminished. Chapter 10 provides an expanded explanation of the goals of public health using three overarching themes of assessment, policy development, and assurance. Public health serves a vital role in the health and well-being of all North Dakotans and opportunities exist to raise awareness and enhance the understanding of public health utilizing those themes.

Healthcare Organization and Infrastructure: Healthcare in North Dakota is delivered through more than 300 ambulatory care clinics, 52 hospitals, and 71 skilled-nursing facilities (see *Figure 11.1*). These facilities are supported by an array of emergency medical services (EMS) providers, trauma centers, 28 public health units, eight human service centers with six outreach/satellite locations, oral health providers, and pharmacies. Generally, the further a facility is from a metropolitan area, the more its operation

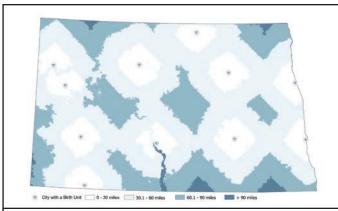


Figure 11.11. North Dakota cities with a birth unit and associated distance buffers, 2024. Data note: The spatial software uses a road network that may not be adequately representative of roads on Tribal Nations.

Table 12.1 R-COOL Scrubs Camps statistics.⁴

Year	Camps Funded	Communities Involved	Students Involved	Volunteers Involved
2009/2010	14	61	1,016	292
2010/2011	9	36	441	239
2011/2012	9	56	407	211
2012/2013	9	57	682	286
2013/2014	9	56	635	197
2014/2015	8	56	699	263
2015/2016	9	57	830	382
2016/2017	10	70	891	363
2017/2018	10	57	931	419
2018/2019	9	64	953	240
2019/2020	8*	28	381	158
2020/2021	7*	86	1,226	202
2021/2022	9*	121	1,048	302
2022/2023	13	134	1,406	411

*In 2019/2020 an additional 8 canceled due to COVID-19; in 2020/2021 an additional 2 canceled due to COVID-19; and in 2021/2022 an additional 1 canceled due to COVID-19

is threatened by financial and other pressures, including staff recruitment and retention challenges. When examining geographic access to hospitals, a large portion of the state's population lives within 30 miles of a Critical Access Hospital, Tertiary Center, or Indian Health Service hospital as shown in Figure 11.10 that includes North Dakota hospitals and the associated distance buffers around those facilities of 30, 60, or 90 miles. This indicates that access to shortterm general hospitals and emergency rooms is relatively similar throughout the state. That level of access changes when considering specialty care. There are currently 11 cities in the state that have a hospital where a woman can go to have a planned birth. When examining geographic access to hospitals with a birthing unit, a smaller portion of the state is within 30 miles of those facilities, with more representation between 30 and 60 miles, or greater than 60 miles based on the displayed distance buffers around those facilities (see Figure 11.11). There are currently six cities where hospitals have inpatient psychiatric beds. As a result, hospitals with psychiatric beds are only accessible variably, depending on if an individual lives within 30 miles, between 30 to 60 miles, or between 60 and 120 miles of a psychiatric facility (see Figure 11.12).

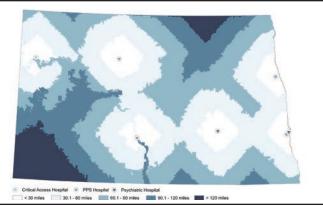
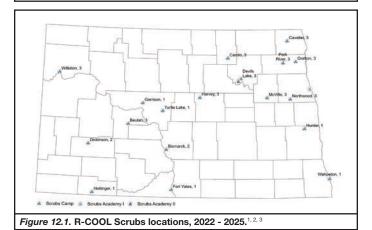


Figure 11.12. North Dakota hospitals with inpatient psychiatric beds and associated distance buffers, 2024. Data note: The spatial software uses a road network that may not be adequately representative of roads on Tribal Nations.



SMHS Impacts: As the only medical school in the state, the SMHS recruits and educates students from across the state. The SMHS also provides a service role throughout the state, reaching the population where they are at with educational and outreach opportunities. The R-COOL Scrubs Camps and Academies serve as an important step in the pathway to introducing students to healthcare careers with a geographic impact across the state for both host locations of events as well as students who engage in these opportunities (see Figure 12.1). This is also evident in the reach of communities, students, and volunteers who engage with the Scrubs opportunities (see Table 12.1). Faculty, staff, and students from both medicine and health sciences engage in service activities that allow for educational, clinical, and professional policy opportunities that serve the population and professionals of the state. The motor vehicle-based Simulation In-Motion North Dakota (SIM-ND) program, a simulation education program that has been serving North Dakota for more than 10 years, has a broad reach within the state. SIM-ND events held throughout North Dakota reached 133 partner organizations, engaged with more than 4,400 learners, and had a presence in 32 counties that contain more than 90% of the state's population.

Table 13.1 North Dakota rankings associated with the Commonwealth Fund State Scorecard, 2023.9.10

Category	2020	2022	2023
Access and Affordability	23 rd	23 rd	24 th
Prevention and Treatment	20 th	38 th	30 th
Avoidable Hospital Use and Costs	11 th	16 th	19 th
Racial and Ethnic Health Equity	11 th	32 nd	43 rd
Healthy Lives	15 th	25 th	21 st
Income Disparity	-	11 th	25 th
Reproductive and Women's Health	-	-	17 th

Quality and Value of Healthcare: Nationally, as well as locally, the health delivery system is going through profound change. Improvements in population health and a realignment of provider payments to incorporate those improvements is a new and fundamental reality. The quality and safety of care delivered in a healthcare system is directly associated with improving and maintaining overall health status. In a complex healthcare system, there are a number of concerns, including the availability of providers; access to care and health services, technology, and treatment advancement; and the financial dimensions of affordability and payment. Each of these is a contributing factor in the overall strategy to be considered when reforming or redesigning the health system. In addition, the quality of care provided to the population and the patient outcomes produced are equally important facets of reform.

The statewide problem of unmet mental and behavioral health needs, especially related to the recent pandemic, is highlighted in the current *Report*. One approach already implemented through the HWI is to bring the (often rural) patient to the provider through the use of telepsychiatry. The UND Department of Psychiatry and Behavioral Science has implemented training in telemedicine-

delivered clinical services for all of its residents so that they will be able to utilize this effectively in clinical practice.

The quality of healthcare delivered in North Dakota is as good as or better than much of the United States, but there appears to have been a decline in several measures in the past few years, particularly in patient safety, care coordination, and healthy living. North Dakota (along with other Upper Midwest states) generally provides high-quality care at relatively lower cost than other states in the U.S. North Dakota ranked 28th in state health system performance in the country in a recent assessment undertaken by the Commonwealth Fund (an improvement from 29 in 2020) (see *Table 13.1*).

Recommendations: The *Report* concludes with a number of recommendations. First is continuing strong endorsement of the Healthcare Workforce Initiative, especially given the accumulated data that verify its effectiveness. One component of the HWI – the RuralMed medical school scholarship program – is cited in particular for its positive results in rural physician recruitment. The budget submitted by the UND SMHS for the 2025–2027 biennium and endorsed by both UND and the State Board of Higher Education has been structured to permit ongoing funding of the HWI and a continuation of the various vital healthcare educational programs of the UND SMHS. The UND SMHS Advisory Council strongly supports the proposed funding.

A second recommendation is for a continuation of the full implementation of the *Strategic Plan for Health* that was completed in 2021 and its ambitious goal for North Dakota to become the healthiest state in the nation. The three important initial steps for beginning this quest will be to raise awareness of the health implications of policy and legislative decisions, expand statewide public health expertise and leadership capacity, and enhance cross-sector collaboration and integration of the numerous entities involved in the healthcare enterprise within (and outside of) the state.

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