Nevada Rural and Frontier Health Data Book

Introduction: Health and Health Care in Rural and Frontier Nevada

The *Nevada Rural and Frontier Health Data Book* — Eighth Edition contains a wide range of current county-level information on the resident population, economy, social environment, population health, health workforce, and the health care delivery system. It includes important data for public policy makers, health care professionals and administrators, rural health care advocates, and equally important, the residents of rural and frontier Nevada. The primary purpose of this data book is to provide the most current and accurate data for these audiences, as well as for those interested in learning more about health and health care in Nevada.

Utilizing over 50 sources of public and private data, most tables provide county level data aggregated at the regional level highlighting important distinctions between rural and urban regions of the state. In some cases, the only available data is regional in nature (e.g., HIV/AIDS prevalence rates). In other instances, the data counts for individual rural and frontier counties are suppressed by the data-collecting agency for confidentiality or other reasons (e.g., teen pregnancy rates). Regardless, the expressed intent of this publication is to highlight important differences among the urban, rural, and frontier areas of the state.

With the state’s ever-changing demography, economy, and health care delivery system, some of the data are in flux and, thus, must be approached with caution. In some cases, the information is not updated on a regular basis. Consequently, the “most current” available data likely understate county and regional trends (e.g., uninsured estimates). Nonetheless, all of the information presented in this volume is, to our best knowledge, the most current available.

The *Nevada Rural and Frontier Health Data Book* — Eighth Edition is divided into six major sections containing the most current data on:

- Demographic characteristics of rural and frontier Nevada, including recent population estimates and projections;
- The social and economic characteristics of rural and frontier Nevada, including data on income, economic indicators, poverty, and educational attainment;
- Health insurance coverage in rural and frontier Nevada, including data on Medicare and Medicaid coverage;
- Population health status in rural and frontier Nevada;
- The health care workforce in rural and frontier Nevada, including estimates and projections for many licensed health care occupations across the major regions of the state; and
- Health care resources and the economics of health care in rural and frontier Nevada.

The majority of tables contained in the *Data Book* are organized into two broad categories: (1) rural and frontier counties and (2) urban counties. Rural and frontier counties include Churchill, Douglas, Elko, Esmeralda, Eureka,

Provider-to-population ratios, insurance enrollment rates, and other population-based ratios and calculations utilize population estimates certified by the Nevada State Demographer’s Office for any given year. Some of the population estimates presented in this Data Book and utilized in the aforementioned denominators vary slightly from those published later in the same year. Numbers and percentages presented throughout the data book may not add up due to rounding. All dollar figures and estimates are in current U.S. dollars and have not been adjusted for inflation. A complete list of data sources is contained at the end of this report, as well as endnotes providing additional information on data and data sources.

*Nevada Rural and Frontier Health Data Book — Eighth Edition* details important differences among rural, frontier, and urban areas of Nevada. These differences impact population health, the availability of hospital and other health care resources, and access to health care services between rural and frontier and urban areas. For example, the age distribution of a county has a significant influence on the health status and health care needs of a population. The population age distribution within a county may affect available resources for local residents (e.g., proportion of county income from Social Security and other transfer payments) and health care providers (e.g., number and percent of Medicare-eligible residents).

All things being equal, rural counties tend to have an older population than urban counties. An older population, in turn, is typically at a greater risk of death and disability than a younger population, and uses a disproportionately larger share of health care resources. In general, urban, rural and frontier areas possess important differences in demographics, economics, and social characteristics, which produce differences in health priorities, population health, health-related behaviors, the delivery of health services, and access to health care. For example, research has consistently documented higher levels of obesity and smoking prevalence, lower levels of health insurance coverage, and greater barriers to accessing health care services in rural versus urban areas. Thus, it is not surprising that rural areas have significantly higher age-adjusted all-cause mortality rates and cause-specific mortality rates than urban areas.

**Defining Rural and Frontier**

The definition of what is and is not a “rural” area is no mere academic matter. Indeed, policy makers utilize different, and in some cases competing, classification schemes to target programs, services, and projects to populations in Nevada and the United States. The classification scheme adopted by the Nevada Office of Rural Health and utilized in this edition of the *Nevada Rural and Frontier Health Data Book* emphasizes the important distinctions between “rural” and “frontier” regions of the state. This classification scheme was developed by the National Center for Frontier Communities (NCFC) with input from state health planners and rural health professionals throughout the country.

The Center’s classification scheme distinguishes certain areas of the country as being more remote than rural areas. The Center’s classification scheme represents an improvement over previous schemes that defined “frontier” simply in terms of population density, where counties with a population density of six or less persons per square mile were defined as “frontier.” Frontier counties are different from rural counties by being more remote in terms of travel time and distance from the nearest population centers with more specialized medical
care and facilities. Additional information on the Center’s classification scheme and methodology can be found at www.frontierus.org.

Map 1 highlights the three urban counties (Carson City, Clark County, and Washoe County), three rural counties (Douglas, Lyon, and Storey Counties), and the remaining eleven frontier counties. It also indicates the location of Nevada’s major towns, cities, and county seats. According to population estimates prepared by the Nevada State Demographer’s Office, 2.9 million Nevadans or 90.3% of the state’s population reside in the state’s three urban counties. Approximately 73.3% of the state’s population resides in Clark County (Las Vegas metropolitan area) alone and 15.1% in Washoe County (Reno-Sparks metropolitan area). In comparison, an estimated 281,019 Nevadans or 9.7% of Nevada’s population reside in the state’s rural and frontier counties. The rural and frontier population spreads over 95,431 square miles or 86.9% of the state’s land mass.

Map 1 also provides a current snapshot of the major health care services available to rural and frontier residents of Nevada. This map excludes the offices of physicians, emergency medical services agencies, or other individual health providers. While most of the state’s tertiary care centers are concentrated in the state’s three urban counties, a diverse range of acute care hospital services, outpatient clinics, and medical services are scattered across twelve of the state’s fourteen rural and frontier counties (exceptions are Storey and Esmeralda counties where there are no health care facilities). These facilities and services — highlighted in greater detail throughout this data book — provide most of the basic health care received by our state’s rural and frontier populations.

Map 2 illustrates the considerable heterogeneity of Nevada’s population and geography utilizing “Rural-Urban Commuting Areas” or “RUCA” codes ranging from 1 (the red shaded, core urbanized areas) to 10 (the blue shaded, mostly frontier, isolated areas of the state). The RUCA methodology provides a more fine-grained classification of rural areas applicable at both the county and sub-county units of analysis. Map 2 underscores the concentration of most of the state’s population in zip code areas located in the northwestern and southern counties of the state (RUCA 1-2), and the dispersion of the remaining 10 percent of the population is scattered across a vast geographic expanse of rural and frontier regions of the state (RUCA 4-10). There are no areas of Nevada with a RUCA code of 3, 6, or 9.

Map 2 also highlights the considerable variation within counties. For example, the urban counties of Clark County and Washoe County contain substantial areas that are rural or frontier in nature; conversely rural and frontier counties such as Lyon and Nye Counties possess comparatively small urban areas or zip codes that are economically integrated with urban centers in the state. Additional information on the RUCA methodology can be found at http://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes.aspx.
Map 1: Healthcare Resources in Nevada

Map 2: Nevada Population by Rural-Urban Commuting Areas (RUCA)

Note: There are no areas of Nevada with a RUCA code of 3, 6, or 9.
Map 3 highlights the unique topography and vast distances separating the state’s rural communities from the urban centers. Most rural and frontier communities are located in sparsely populated counties that are considerable distances from the state’s urban and tertiary health care centers. The average distance between acute care hospitals in rural Nevada and the next level of care or tertiary care hospital is 118.1 miles and the average distance to the nearest incorporated town is 46.3 miles. Consequently, the primary health care delivery issue for rural and frontier residents and communities in Nevada is how best to overcome the spatial isolation and enormous geographic distances that characterize most rural and frontier communities in Nevada.

Nevada comprises the western half of our nation’s Great Basin. Ridge after ridge of rugged, brown mountains are broken up with flat sage covered valleys. The Great Basin is a high desert defined by 150 mountain ranges running north to south and earthquake activity second only to Hawai’i. Most mountain passes are subject to very difficult seasonal weather conditions. Most major roads follow the north to south pattern with two major exceptions. U.S. Highway 50 — “the loneliest highway in America” — across the middle of the state winds through numerous mountain summits. Interstate 80 curves northeast across the state largely following the railroad tracks built in the 1870’s. Travel time from most county hospitals to regional medical centers is thus measured in hours not minutes. Driving long distances is a very daunting task to obtain emergency health care in winter conditions. Helicopter pads are located at all rural hospitals for emergency transport to/from either Reno, Las Vegas, or other emergency care centers.

Map 4 details public and private land ownership in Nevada. Approximately 10 percent of land is privately owned (shaded black). The remaining 90 percent is publicly owned and administered by a wide range of federal, state, and tribal entities. The major administrators of public lands in Nevada are the Bureau of Land Management, Departments of Defense and Energy, and the U.S. Forest Service. The checkerboard pattern along Interstate 80 and the Humboldt River in Northern Nevada highlights a large swath of land owned either by the Bureau of Land Management or the railroad company’s land grants.

Map 5 highlights the enormous geographic expanse of the state — Nevada is the 7th largest state in the U.S. — by comparing it with selected northeastern states. Nevada’s land mass is approximately 110,000 square miles. By comparison, seven northeastern states with a combined land mass of 47,820 square miles would easily fit within Nevada’s borders.
Map 3: Nevada Geography

Map 4: Public and Private Land Ownership in Nevada

Map 5: Selected Northeastern States Placed Within the State of Nevada

- Massachusetts: 10,555 square miles, 6.7 million population
- Rhode Island: 1,545 sq mi, 1.1 million pop
- New Hampshire: 9,350 square miles, 1.3 million population
- Vermont: 9,615 square miles, 0.6 million population
- New Jersey: 8,722 square miles, 2.9 million population
- Connecticut: 5,544 square miles, 3.6 million population
- Delaware: 2,489 sq mi, 0.9 million pop

NEVADA
109,286 square miles, 2.8 million population

Data Book Sections and Contents

Section One: Demographic Profile of Rural and Frontier Nevada

The first section of the *Nevada Rural and Frontier Health Data Book — Eighth Edition* contains the most current data on the social and demographic characteristics of rural and frontier Nevada, including information on:

- Population and population density
- Population change and projections
- Population aging and diversification
- Population by place of birth
- Veterans in Nevada

Section Two: Social and Economic Profile of Rural and Frontier Nevada

The second section contains the most current data from state and federal agencies on the social and economic characteristics of rural and frontier Nevada, including data on:

- Personal and family income
- Poverty rates for children and adults
- Educational enrollment, spending, and attainment
- Voter registration and party affiliation
- Violent crime and property crime statistics

Section Three: Health Insurance Coverage in Rural and Frontier Nevada

The third section contains the most current data on health insurance coverage in rural and frontier Nevada, including information on:

- Health insurance coverage and the uninsured
- Medicare coverage
- Medicaid coverage
- Nevada Check Up coverage
- Veterans Health Administration coverage

Section Four: Population Health Profile of Rural and Frontier Nevada

The fourth section contains the most current data on population health in rural and frontier Nevada, including information on:

- Population health status and risk factors to health
- Adult and youth behavioral risks to health trends
- Teen pregnancy and birth rates
- Morbidity and mortality rates
- County health rankings
Section Five: Health Care Workforce in Rural and Frontier Nevada

The fifth section contains the most current data on the health care workforce in rural and frontier Nevada, including data on:

- General labor market trends
- Hospital and health sector employment and payroll trends
- Number and per capita geographic distribution of licensed physicians, nurses, and other health professionals
- Health professional shortage areas and medically underserved areas

Section Six: Health Care Resources and Economics in Rural and Frontier Nevada

The sixth section contains the most current data on health care facilities, health care resources, and economic aspects of health care in rural and frontier Nevada, including information on:

- Hospital and clinic resources
- Health care and hospital industry sector employment and payroll
- Economic impact of hospitals
- Rural health clinics, community health centers, and tribal facilities
- Utilization trends and financial performance among the state’s rural and frontier hospitals

The data sources, explanation of data tabulations, and notes on the strengths and weaknesses of the data presented for each table, figure, and map in the data book are contained in the appendices.

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In closing, since health and health care in rural and frontier Nevada are ever changing, our ambition is to continue to update and distribute this volume on a biennial basis. If your organization or agency utilizes the data book, we would appreciate learning more about how you have used it and how future editions of the data book can be improved. Additional data and information on health and health care in Nevada is available on the Nevada Instant Atlas at http://med.unr.edu/atlas. As such, please send your comments and suggestions, as well as requests for additional copies to Tabor Griswold at tgriswold@med.unr.edu.

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