

NATIONAL DIABETES PREVENTION PROGRAM AUDIENCE PROFILE

PERSONS IN RURAL AREAS

NATIONAL == DIABETES
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INTRODUCTION

To successfully engage your population of focus it is important to have a clear understanding of their culture, beliefs, and barriers to health. This audience profile includes information about the nuances to consider when reaching persons in rural areas, based on a review of various research studies and taking into consideration lessons learned through past experiences working with this group. This document is not an in-depth research report or analysis, as it is meant to provide a general understanding of various factors that may affect your audience's availability, interest, and/or commitment to your National Diabetes Prevention Program lifestyle change program (LCP). Use the questions listed at the end of this profile to validate and expand on the information provided for your local program's market.

WHAT IS A RURAL AREA?

In general, rural areas are sparsely populated, have low housing density, and are far from urban areas.¹ Definitions of "rural" vary and may take into account population density, labor market issues, or geographic isolation. The U.S. Census Bureau defines "rural" as all populations, housing, and territory not included within an urbanized area or urban cluster. As a result, the rural portion of the United States encompasses a wide variety of settlements—from densely populated small towns and "large-lot" housing subdivisions on the fringes of urban areas, to more sparsely populated and remote areas.²

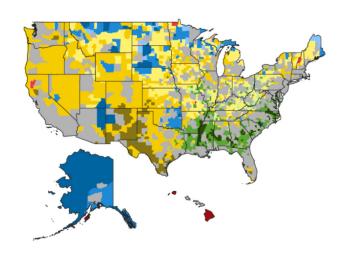
Frontier areas are also sparsely populated rural areas that are isolated from population centers and services. Many frontier counties are located in the West, a part of the country where individual counties tend to cover a large geographic area. Frontier may be defined at the community level by county, ZIP code, census tract, or other defined geographic area. Even counties that have a town with a hospital, grocery store, and other services may also encompass areas that are much more rural and isolated, making them frontier counties. Frontier areas face challenges in providing residents access to health and human services that are even greater than challenges faced by other rural communities.³



PERSONS IN RURAL AREAS IN THE UNITED STATES

- As of the 2010 U.S. Census, 64.4 percent of the total rural population live east of the Mississippi River.
- Only 10 percent of the total population in the Western United States lives in rural areas. In the West, there are fewer rural residents because the land mass is vast—many areas are defined as "frontier" and occupations tend to be less dense, such as mining, large commercial farming, and ranching.
- Nearly half (46.7 percent) of all persons living in rural areas are in the South, about 28 million people.
- Among U.S. counties, 704 of them have 100 percent of their populations living in rural areas, and 29 counties have 0 percent of their populations living in rural areas.

RACIAL AND ETHNIC MINORITY GROUPS IN RURAL U.S. 2020⁵





Source: Brookings Institution



OVERVIEW OF RURAL COMMUNITIES

Rural and small-town America includes the prairies of the Midwest, the mountains of Appalachia, the Mississippi Delta and the "Black Belt" of fertile land in the South, unincorporated *colonias* and many places along the United States-Mexico border, remote and geographically isolated "frontier" areas across the West, and Native lands across the country. According to the 2016 American Community Survey, rural areas cover 97 percent of the land area of the United States, but only 19.3 percent of the population lives in rural areas. Of the 60 million rural persons in the United States, 47 million are adults over the age of 18.2

Adults in rural areas tend to be older, with a median age of 51, compared with adults in urban areas, with a median age of 45. Rural adults have lower rates of poverty (11.7 percent) than persons in urban areas (14 percent), but they are less likely to have obtained a bachelor's degree or more (19.5 percent) compared with adults in urban areas (29 percent). Fewer adults in rural communities were born in other countries (4 percent) compared with adults in urban communities (19 percent).





Household income: Both employment and median earnings of rural Americans have increased since 2015. As employment and earnings have increased, rural poverty has decreased. According to the 2015 American Community Survey, median household income for rural households was \$52,386, about 4 percent lower than the median income for urban households, \$54,296. About 13.3 percent of families living in rural areas had incomes below the official poverty thresholds, and the poverty rate for persons in urban areas was 16 percent. The disparity in incomes was even greater among ethnic and racial minority groups living in rural areas.⁶

Median incomes for rural households in the Northeast (\$62,291) and Midwest (\$55,704) were higher than their urban counterparts, at \$60,655 and \$51,266, respectively. On the other hand, rural households in the South had a median income of \$46,891 compared with \$50,989 for households in urban areas. For rural households in the West, the median income was \$56,061, lower than the \$58,545 median income for urban households.⁶



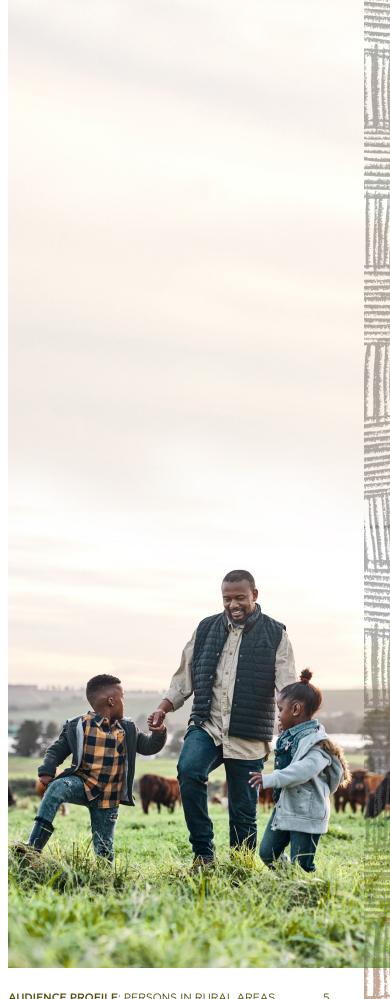
Poverty rate: Areas with a high rate of poverty often reflect the lower income levels of racial and ethnic minority groups in those areas. In 2019, nonmetropolitan, also called nonmetro, Black or African American persons had the highest incidence of poverty (30.7 percent), followed by nonmetro American Indian or Alaska Native persons (29.6 percent) and nonmetro Hispanic or Latino persons (21.7 percent). The poverty rate for nonmetro White persons in 2016 was significantly lower (13.3 percent) than that of racial and ethnic minority groups.⁷

PREVALENCE OF DIABETES AND PREDIABETES

According to the Centers for Disease Control and Prevention's 2022 "National Diabetes Statistics Report," 37 million Americans—just over 1 in 10—have diabetes and 8.5 million of those persons are undiagnosed. Among American adults, 96 million—approximately 1 in 3—have prediabetes. Nearly half (48.8 percent) of adults aged 65 and older in the United States have prediabetes.8

Among Americans aged 18 and older in 2019, men had a higher prevalence of diabetes (12.6 percent) than that of women (10.2 percent) and the general population (11.3 percent). A higher percentage of men had prediabetes (41.9 percent) than women (34.3 percent); however, only 17.4 percent of men were aware they have this condition.8

- · One research study found an increased prevalence of diabetes among rural populations in the South. The diabetes prevalence for males in this region was 22 percent higher than that of females. In this study, a higher prevalence of diabetes among rural populations was not found in the Midwest, West, or Northeast.9
- In 2019, diabetes prevalence varied significantly by education level, which is an indicator of socioeconomic status. Specifically, 13.4 percent of adults with less than a high school education had diagnosed diabetes, compared with 9.2 percent of those with a high school education and 7.1 percent of those with more than a high school education.8
- Adults with family income below the poverty level had the highest prevalence for both men (13.7 percent) and women (14.4 percent) in 2019.8
- For both men and women, the prevalence of diagnosed diabetes was highest among American Indian or Alaska Native persons (14.5 percent), followed by non-Hispanic or Latino Black persons (12.1 percent), persons of Hispanic or Latino origin (11.8 percent), non-Hispanic or Latino Asian persons (9.5 percent), and non-Hispanic or Latino White persons (7.4 percent).8





RISK FACTORS RELATED TO PREDIABETES AND DIABETES

People who have overweight (body mass index [BMI] of 25 or greater) or obesity (BMI of 30 or greater) are more likely to suffer from type 2 diabetes, high blood pressure, and high levels of blood fats—which are all risk factors for heart disease and stroke. High blood pressure, high levels of blood fats, physical inactivity, smoking, too much alcohol, and family history are also risk factors for prediabetes and diabetes, heart disease, and stroke.⁸

Despite improvements in the overall health of Americans, people living in rural areas have been less likely than their urban counterparts to practice health behaviors that could protect them from chronic disease. Rural Americans tend to have higher rates of cigarette smoking, high blood pressure, and obesity than persons in urban communities.

Social determinants of health, and barriers to health care access and lifestyle intervention programs among rural populations, can increase the likelihood of a person having one or more risk factors for chronic health conditions including prediabetes and diabetes, heart disease, and stroke. Common barriers experienced by persons in rural areas include a lack of:

- Access to health care providers and nearby services, particularly specialty care, due to health care provider shortages.
- Financial means to pay for health care services, such as health or dental insurance that is accepted by a health care provider.
- Public transportation.
- Employer-provided sick leave and health benefits.
- Reliable broadband access for telehealth and seeking health information.

A literature review found that male farmers aged 45 and older are at a higher risk of being diagnosed with heart disease when compared with non-farmers in the same demographic. Researchers identified risk factors among this population including occupational hazards and chronic stress, limited health care access, health literacy, education level, and perceptions of a healthy lifestyle.¹²

ACCESS TO HEALTH CARE AND INFORMATION

Health care systems in rural areas often consist of small, independent primary care offices, county health departments, and federally supported community clinics. About 20 percent of Americans live in rural areas, but only 10 percent of physicians practice there. The federal government projects a shortage of over 20,000 primary care physicians in rural areas by 2025. The physician who chooses rural medicine typically cares for an underserved and aging population which is often in poorer health than its urban and suburban counterparts. Despite often feeling deeply connected to their patients and communities, rural primary care providers often do not have the support of sub-specialists, hospitalists, or emergency physicians, and thus treat a wider range of conditions with limited access to specialized care and technology.¹³

Many rural communities are challenged by health inequity, poor health care infrastructure, and designation as health professional shortage areas by the federal government. Some rural communities have higher concentrations of ethnic and racial minority groups and persistent poverty. Rural residents tend to have lower socioeconomic status and may be older, more isolated, and uninsured or more reliant on government health insurance when compared to urban or suburban individuals. Rural residents also tend to be more reliant on government supplemental programs such as the Supplemental Nutrition Assistance Program (SNAP) compared with their urban counterparts.14

Additional barriers such as lack of culturally appropriate interventions, disabilities, stigma regarding mental health care, lack of privacy.

HOSPITALS IN RURAL AMERICA¹⁵

Rural hospitals are an integral part of the health care system. Because of their significant contributions to overall community well-being, they are a critical component of communities across rural America. Rural hospitals provide services across the continuum of care, from primary care to long-term care.

Recent years, however, have presented challenges for rural hospitals. Factors such as low reimbursement rates, increased regulation, reduced patient volumes, and uncompensated care have caused many rural hospitals to struggle financially or close. Consequently, as outlined in "The 21st Century Rural Hospital," rural hospitals have adapted by modifying their services and structure.

lack of broadband internet access in some areas, and a perception among residents that poor health is inevitable, have been identified in rural communities.

Addressing the overall shortage of health care services and providers in rural communities is a national priority. Similarly, addressing health care infrastructure and social determinants of health among rural audiences such as education levels, low health literacy, low socioeconomic status, transportation and distance to care, and lack of health insurance may help to increase rural residents' use of health care and diabetes prevention services.



CULTURAL UNDERSTANDING OF PERSONS IN RURAL AREAS

Low population density and isolation in parts of rural America have led to a unique culture that varies widely based on geography, local industry, immigration patterns, and race and ethnicity. There is not one "rural America"—just as there is no single definition of rural. Despite this cultural diversity, persons in rural areas often share several characteristics:

- Independent
- Self-sufficient
- Resilient
- Suspicious of "outsiders," particularly those from urban areas
- Loyalty to and understanding of their own community
- Pride of place and heritage
- · Feeling of alienation from, and being short-changed by, the federal government
- Lower education levels
- Interconnectedness, shown as a willingness to help neighbors¹⁶

Many Americans from both urban and rural areas hold mostly positive views of rural life in America as the last stronghold of traditional values, close-knit families and communities, and a strong work ethic. Rural communities are often friendly and close-knit while including hard-working individuals working independently to make ends meet. Rural communities offer a particular quality of life that can include aesthetic surroundings and a sense of serenity, yet they are often plagued by a lack of economic opportunities and limited access to health care. Persons in rural areas may also be perceived by others as being "behind the times," as rural life can represent a slower pace than city or suburban life.





Rural America is often characterized by distinct communities based on race, ethnicity, and heritage. Historically, rural communities have been less racially and ethnically diverse than urban areas; however, the rural demographic is becoming more diverse. Overall, racial and ethnic minority groups in rural communities tend to be younger than non-Hispanic or Latino White persons, have lower incomes, and have lower levels of education. Some rural racial and ethnic minority populations are less likely than non-Hispanic or Latino White persons to report having a personal health care provider. The personal experience of health disparities and the types of diagnosed health conditions often vary among the different racial and ethnic minority groups in rural areas.¹⁷

SUBSTANCE USE IN RURAL COMMUNITIES

Although often perceived to be an inner-city problem, substance use disorder (SUD) and opioid use disorder (or prescription drug misuse) have long been prevalent in rural communities. Rural adults have higher usage rates for alcohol, tobacco, marijuana, and methamphetamines, while prescription drug misuse and cocaine and heroin use have grown in towns of every size. Substance use can be especially hard to combat in rural communities due to limited resources for prevention, treatment, and recovery.¹⁸

In 2021, a Centers for Disease Control and Prevention National Center for Health Statistics <u>Data Brief</u> included the following key findings from National Vital Statistics System data:¹⁹

- From 1999 through 2019, the rate of drug overdose deaths increased from 6.4 per 100,000 to 22.0 in urban counties and from 4.0 to 19.6 in rural counties.
- In 2019, rates of drug overdose deaths in rural counties were higher than in urban counties in California, Connecticut, North Carolina, Vermont, and Virginia.

Factors contributing to substance use in rural communities include:18

- Low educational attainment
- Social determinants of health, including poverty and unemployment
- · Lack of health insurance or access to health care services, including mental and behavioral health care
- Isolation and long travel distances to receive preventive health screenings and services

SUDs can result in increased illegal activities as well as physical and social health consequences, such as poor academic performance, poor health status, changes in brain structure, and increased risk of death from overdose and suicide. For information and resources specific to the opioid crisis, see the Rural Response to the Opioid Crisis topic guide.¹⁸

BUILDING RELATIONSHIPS WITHIN RURAL COMMUNITIES

TRUSTED SOURCES AND INFLUENCERS

For health communication to influence behavior, individuals must process and believe information, and then adopt the message's recommendation. Trust in the information source plays a key role in a person's responses to health-related messages.²⁰ Some data demonstrate that rural communities are increasingly feeling misunderstood and discounted, and listening to the needs of rural individuals and communicating through trusted sources is key.²¹ Below are some examples of trusted sources and influencers in rural communities:



COMMUNITY-BASED ORGANIZATIONS AND PEER EDUCATORS

Organizations that already have an existing relationship within a rural community may have an advantage in communicating with these audiences.²² Some rural audiences value personal connections and respond more readily to information and resources provided by community health centers, community-based organizations, and peer educators.



COMMUNITY HEALTH WORKERS

Community health workers are frontline health professionals who facilitate health care access for populations of focus. These health care workers can act as liaisons between providers and consumers in rural communities and provide culturally appropriate health information and prevention education.²³



OTHER COMMUNITY INFLUENCERS

Community leaders, faith leaders, and local media are likely to be trusted sources for health information and community updates.

OUTREACH WITH RURAL COMMUNITIES

HEALTH PROMOTION STRATEGIES

The many challenges that rural communities face highlight the need for additional attention and resources aimed at improving health. Rural areas could benefit from improved public health programs that support healthier behaviors and neighborhoods and better access to health care services. The following strategies may be successful with rural audiences:

- **Community councils.** Create and execute your LCP promotion activities with and through a council of trusted local leaders.
- Faith communities. Faith communities are often where most people in rural communities gather. Work with pastors and congregational leaders to offer and promote your LCP and provide supporting activities, such as healthier meal functions and exercise classes.
- **Schools.** Schools are often major employers and gathering places in rural communities. Use school communication networks to reach adults in the community and utilize school facilities for activities.
- **Employers.** Employers in rural communities may be more familiar or have relationships with their employees. Leverage the sense of community to promote your program through employers.

MEDIA TRENDS

Rural Americans have increasingly adopted digital technology over the past decade, narrowing some previous gaps. Overall, rural consumers remain less likely than urban consumers to have broadband internet access or own a smartphone, tablet, or traditional computer.²⁴ As such, many consumers, particularly older persons, tend to rely on traditional media sources such as television and newspapers for local news and information.

SEEKING HEALTH INFORMATION

Among some rural individuals, certain health behaviors (e.g., increased smoking rates, physical inactivity, poor diet, low rates of health information seeking) and health beliefs (e.g., fatalistic attitudes, perceived negative health) may also lead to health care avoidance. Additionally, rural residents may avoid seeking information or care for health conditions they perceive as stigmatizing (e.g., mental health conditions, substance use, sexually transmitted infections).

Moreover, in some instances, rural residents have reported experiencing difficulties navigating the health care system, having a sense of mistrust in the system, or experiencing a lack of culturally competent health care services—all of which can influence their ability to seek and access health information and health care services.



CONSIDERATIONS FOR MESSAGING

When developing messages for rural audiences, consider the following:

- Many rural residents have a high school education or less.
- Consider health literacy levels among the audience you want to engage.
- Rural audiences are very homogenous—tailor your message to the specific group you are trying to reach and engage.
- Rural audiences can be very patriotic and have tremendous pride in place and culture.
- Local spokespersons and community leaders are critical for acceptance of messages.
- Rural residents tend to be independent and self-reliant, while at the same time they can be interdependent and possess a strong commitment to help one another.
- Internet access is often unreliable in rural areas.
- Tie health messages to the potential financial benefit for the person and family.



FOR ADDITIONAL INFORMATION ABOUT WORKING WITH RURAL COMMUNITIES, PLEASE VISIT THE RESOURCES BELOW:

General Health

Centers for Disease Control and Prevention: Rural Health

Preventing Chronic Diseases and Promoting Health in Rural Communities

Community Health Worker Resources

Community Health Worker Toolkit

Diabetes and Prediabetes

CDC: Diabetes Resources

Making the Connection: Engaging Community Partners to Address Type 2 Diabetes in Vulnerable Populations

QUESTIONS TO HELP GUIDE AND INFORM DIABETES PREVENTION PROGRAM EFFORTS AMONG PERSONS IN RURAL AREAS

COMMUNITY BACKGROUND

- What is the demographic background of your rural population? (e.g., population percentage, age, country of origin and birth, language, socioeconomic status, immigrant and refugee status)
- What is the level of food insecurity among your rural population?
- What percentage of people in your rural community has diabetes or prediabetes?
- What are the cultural backgrounds and language differences among persons in your rural community?
- ☐ Within your community, are there groups that work with audience members such as coalitions, mutual aid societies, chambers of commerce, or community or faith-based organizations?

MEDIA HABITS

- Which media channels—including social and digital media—are most popular or preferred among people who live in rural areas?
- What relationships do you have with these media outlets? Who do you need to reach out to?
- What infrastructure does your organization have to use popular social and digital channels? What media channels do you need to strengthen?



HEALTH CARE AND HEALTH INFORMATION-SEEKING BEHAVIORS

- Where specifically do rural audience members go for health care services?
- ☐ How accessible is health care for people within the rural community?
- Are health information-seeking behaviors the same or different for men when compared with women in the rural community? If they are different, how?
- Who are the trusted sources for health information within your rural population? Are health sources different or the same as other trusted sources?

MESSAGES

- Are your messages culturally sensitive? Do they reflect cultural humility?
- Are the language(s) and literacy level appropriate for the rural audience you are trying to reach?
- Do you have images that will resonate with people in your community? You will probably need to find new images for each language that you use.
- Are you working with rural community organizations or groups that will be able to assist with message development for your marketing materials?

TRUSTED SOURCES

- Who are the trusted thought leaders?
 (e.g., community influencers, religious leaders) specific to the rural community
 - O Community-based organizations? Faith communities? Health care providers? Vocal advocates?
- Who are the leaders and champions or gatekeepers for the rural audience? With whom do you need to collaborate?
- How can you use these trusted sources to help you market and promote your LCP among people in the rural community?

BARRIERS AND BENEFITS TO THE NATIONAL DIABETES PREVENTION PROGRAM

- What are the specific barriers to promoting the LCP to persons in rural areas?
- ☐ How will you work to mitigate these barriers?
- What LCP benefits are meaningful to rural audience members? How can you work these benefits into your marketing materials?
- What does your LCP offer persons in your rural community that other disease prevention programs or events do not—or cannot—offer?

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