Access to Care Among Rural Adults in Maine

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INTRODUCTION

Health care access is an essential contributor to the health and well-being of individuals and communities; however, issues such as the affordability and availability of care may affect access to timely service use. The ability to obtain needed health care services can vary dramatically across groups, with factors such as socioeconomic status, demographic characteristics, and insurance coverage affecting health care use. Maine residents who live in rural communities may experience challenges accessing the health care services they need.

There is ample national evidence that rural residents experience unique barriers to care compared with their urban counterparts including transportation barriers and travel distance; scarcity or limited availability of providers; higher rates of uninsurance and underinsurance; and, lower average incomes.[1] Recent information on the health care access of Maine's rural communities is more limited, despite the fact that Maine is one of the most rural states in the country. This brief addresses that gap and provides a snapshot of rural health care access within the state based on data from the 2015-19 Maine Behavioral Risk Factor Surveillance System (BRFSS), the most relevant source of state-level data for analysis of rural-urban differences. At the time of these analyses, the 2019 BRFSS data were the most current available. This means the findings pre-date the COVID-19 pandemic and encompass only the earliest period of Maine's expansion of Medicaid under the Affordable Care Act (ACA). Therefore, it will be critically important to update these analyses as soon as more current data are available.

The Behavioral Risk Factor Surveillance System—a state-federal partnership that supports an ongoing annual survey of adults 18 and older—is used to monitor a wide range of health topics and is Maine's largest and longest-running population health survey. More detailed information on the BRFSS and the methods used, including measures of rural residence as well as additional information on limitations of the data, can be found in the Methods Note at the end of this brief.

FINDINGS

Characteristics of Maine Residents in Rural and Urban Areas

There were significant rural-urban differences in sociodemographic characteristics among Maine residents age 18 and older (see **Table 1** on the next page). Compared with those living in urban communities, rural residents tended to be older, with fewer under age 50 (43% versus 51%) and a greater proportion age 65 and older (26% versus 22%).

Those living in rural areas were somewhat less likely to belong to a minoritized racial or ethnic group (5% versus 7%). Rural adults generally had lower educational attainment than did those living in urban places. One in four rural residents (24%) had obtained a college degree compared with more than one in three urban residents (35%). Only 46% of rural respondents had household incomes higher than $50,000 per year, compared with 55% of urban residents.

KEY FINDINGS

- Rural adults are more likely to have public health insurance and to be uninsured compared with those living in urban areas
- While rural and urban adults are equally likely to delay or forgo health care because of costs, some of those in rural areas are more likely to report having to pay off medical bills over time
- Adults living in rural Maine have poorer overall health status than urban Mainers

*For the purposes of these analyses, we used the New England Rural Definition based on the Rural Urban Commuting Area codes developed by the Washington, Wyoming, Alaska, Montana, Idaho (WWAMI) Rural Health Research Center and U.S. Department of Agriculture.

Rural Mainers Have Less Private Insurance Coverage and Higher Uninsured Rates

Health insurance coverage is an important resource to enable access to health care services. Rural residents differ from their urban counterparts in their sources of insurance coverage. Just over half of rural adults have private insurance (51%) compared with 58% of urban adults. Rural adults are somewhat more likely to have public insurance such as Medicare or MaineCare (Maine's Medicaid program).

Eleven percent of rural Maine adults lacked health insurance during this time period, compared with 8% of urban adults (**Figure 1**).

The uninsured rate varied by age as well as rural-urban residence (**Figure 2**). Because of the near-universal availability of Medicare for adults age 65 and older, very few in this age group (1%) lack insurance and this does not vary by residence. In contrast, 17% of rural adults age 18-49 were uninsured in this time period compared with 11% of urban residents in the same age group. Adults nearing retirement age (50-64) were less likely to lack insurance, but the rate was somewhat higher among those living in rural areas (9% versus 6%).

Table 1. Sociodemographic characteristics of adults in Maine, by rurality of residence

	Rural % (CI)	Urban % (CI)
Age*		
18 – 49	42.8% (42.0-43.7)	50.9% (49.5-52.2)
50 – 64	30.8% (30.1-31.5)	27% (25.9-28.1)
65+	26.4% (25.8-26.9)	22.1% (21.3-23.0)
Race and Ethnicity*		
White only, non-Hispanic	95.5% (95.1-95.8)	93.2% (92.4-94.1)
Minoritized racial or ethnic group^	4.5% (4.2-4.9)	6.8% (5.9-7.6)
Educational attainment*		
Less than high school	8.7% (8.2-9.3)	7.1% (6.1-8.1)
High school diploma or GED	35.9% (35.2-36.7)	26.1% (24.8-27.3)
Some college	31.3% (30.5-32.1)	31.5% (30.2-32.9)
Bachelor's degree or higher	24% (23.4-24.6)	35.3% (34.1-36.5)
Income*		
Less than $25,000	25.9% (25.2-26.6)	22% (20.7-23.3)
$25,000 - $49,999	28.4% (27.7-29.2)	23.1% (21.8-24.4)
$50,000 or more	45.6% (44.8-46.5)	54.9% (53.4-56.2)

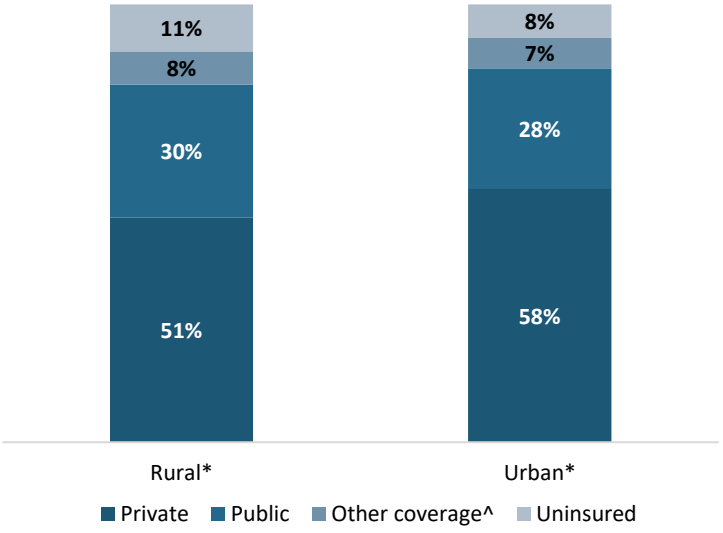
Source: 2015-2019 Maine BRFSS annual survey

CI: 95% confidence interval.

*Rural-urban differences are statistically significant at p<.05.

^Includes individuals who reported being Hispanic and any race, or non-Hispanic and one of the following race categories: Black only, American Indian or Alaskan Native only, Asian only, Native Hawaiian or other Pacific Islander only, other race only, or multiracial.

Figure 1. Health insurance coverage among rural and urban adults

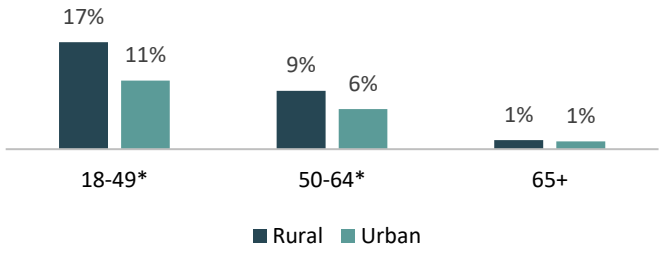


Source: 2015-2019 Maine BRFSS annual survey

*Rural-urban differences are statistically significant at p<.05.

^Other coverage includes TriCare, Indian Health Service, and other unspecified.

Figure 2. Percentage of uninsured adults by age group and rural-urban residence



Source: 2015-2019 Maine BRFSS annual survey

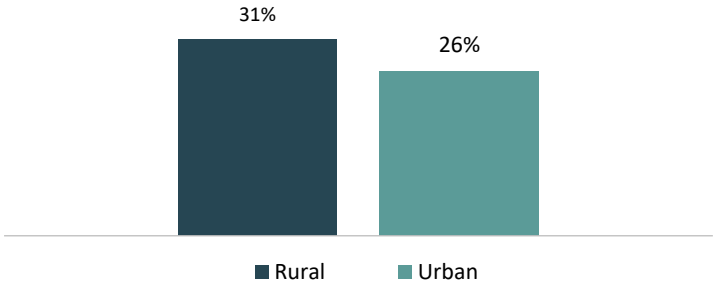
*Rural-urban differences are statistically significant at p<.05.

Some Rural Residents Experience Greater Problems Paying for Medical Care

As noted previously, a slight majority of all Maine adults received their health insurance privately from either an employer or direct purchase. Because private insurance generally requires more cost-sharing than MaineCare, we examined whether there were rural-urban differences in cost barriers to health care services among the privately insured. We found no statistical difference in the proportion of rural versus urban adults who delayed or went without needed health care because of costs (8% and 7%, respectively, not statistically significant).

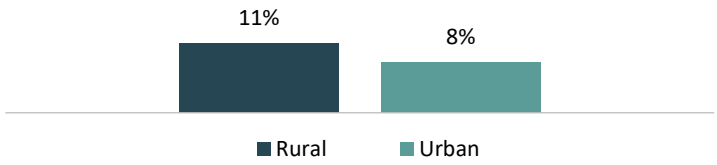
However, we did find that, among adults with private insurance, rural residents were more likely than urban residents to report paying medical bills over time (31% versus 26%, see **Figure 3**). Similarly, despite comparable health insurance coverage among rural and urban older adults, rural adults age 65 and older were more likely to report paying medical bills over time than older adults living in urban areas (11% versus 8%, see **Figure 4**).

Figure 3. Percentage of privately-insured rural and urban adults who reported paying medical bills over time



Source: 2016-2019 Maine BRFSS annual survey
Rural-urban differences are statistically significant at p<.05.

Figure 4. Percentage of rural and urban adults over age 65 who reported paying medical bills over time

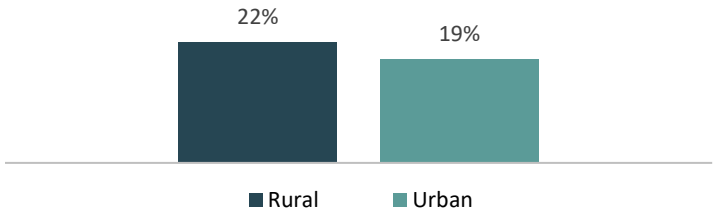


Source: 2016-2019 Maine BRFSS annual survey
Rural-urban differences are statistically significant at p<.05.

Rural Mainers Age 50-64 Were Less Likely to Have Had a Checkup in the Past Year

Receiving routine preventive care is important for health and is considered a marker of health care access. We found that approximately 75% of all Maine adults had visited a doctor for a routine checkup in the past year. (The BRFSS defines a routine checkup as "a general physical exam, not an exam for a specific injury, illness, or condition".) Across all age groups, this proportion did not differ for rural compared with urban residents (data not shown). However, we found that rural Mainers age 50-64 were more likely to have gone without a checkup in the last year compared with their urban counterparts (22% versus 19%, **Figure 5**). Given the elevated rates of chronic illness in this age group compared with younger adults, the higher percentage of rural residents going without a checkup may be a concern for future health status.

Figure 5. Percentage of rural and urban adults ages 50-64 who went without a physical in the past year

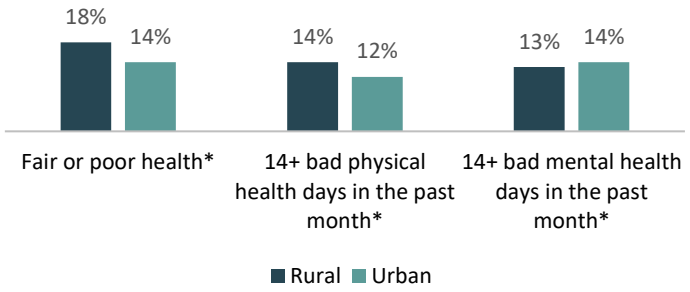


Source: 2015-2019 Maine BRFSS annual survey
Rural-urban differences are statistically significant at p<.05.

Rural Adults Experience Poorer Health Status

Compared with their urban counterparts, rural adults of all ages were more likely to report their own health status as fair or poor health (**Figure 6**, 18% versus 14%). When asked about how many days in the past month their physical health had been bad, rural adults were more likely to report 14 or more days of bad physical health (14% versus 12%). Rural adults were slightly less likely than their urban counterparts to report having 14 or more bad mental health days in the past month. Overall, 18% of rural adults shared that they had 14 or more days in the past month where poor physical or mental health interfered with their usual activities. This was somewhat higher than the rate of urban adults (18% versus 16%).

Figure 6. Self-reported indicators of physical and mental health among rural and urban adults



Source: 2015-2019 Maine BRFSS annual survey
*Rural-urban differences are statistically significant at p<.05.

CONCLUSION

We find that rural adults in Maine experience some clear barriers to health when compared with their urban counterparts. For example, rural adults are more likely to be uninsured versus those who live in urban areas. Rural residents were generally as likely to receive needed health care and have a routine check-up as were urban residents; however, privately insured rural residents are more likely to report having to pay off their medical bills over time. We also found that rural residents are in poorer health and experience more bad health days in a given month than do urban residents. Of note, our analyses generally predate Maine's Medicaid Expansion, which began implementation in 2019 (the final year of data covered by this brief). It also predates the COVID-19 pandemic, which may have affected health care access and the health status of all Mainers in multiple ways.

METHODS NOTE

Sample size. The data analyzed in this brief are from the 2015-2019 Maine BRFSS, the most current data available at the time of this publication. The sample includes 51,118 respondents age 18 and older across the five survey years. For the measures included in this brief, we pooled data across all available survey years to ensure sufficient sample size. In some cases, variables of interest were not available across all survey years; these instances are noted throughout the brief.

Study design. Because the BRFSS uses a complex sampling strategy, all analyses in this brief use sample weights to adjust for the ways in which the BRFSS sample is known to differ from the Maine population. The statistical testing and confidence intervals produced by these analyses take into account the complex design of the BRFSS. These analyses were deemed non-human subjects research by the University of Southern Maine Institutional Review Board.

Rural classification. Rural residence categories are based on the New England Rural Health Association (NERHA) 2014 Rural Tier assignments. Additional information about the rurality classification scheme is available in the technical appendix of the NERHA report *Rural Data for Action: A Comparative Analysis of Health Data for the New England Region*. For this brief, we combined NERHA's "core metro" and "small metro" categories into an "urban" classification, and their "large rural", "small rural", and "isolated rural" categories into a "rural" classification.

Limitations. Due to small sample, race and ethnicity categories in Table 1 were collapsed and rural analyses by race were not possible.

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Reference:
1. Ziller E, Milkowski C. A Century Later: Rural Public Health's Enduring Challenges and Opportunities. *Am J Public Health*. 2020;110(11):1678-1686.

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