

The Relationship between Telehealth Utilization and Broadband Access in Michigan

Key Takeaway

- The percentage of households with broadband internet subscriptions in Michigan counties ranged from 72% to 92%. There was a positive correlation between broadband access and higher utilization of telehealth services.

Policy Consideration

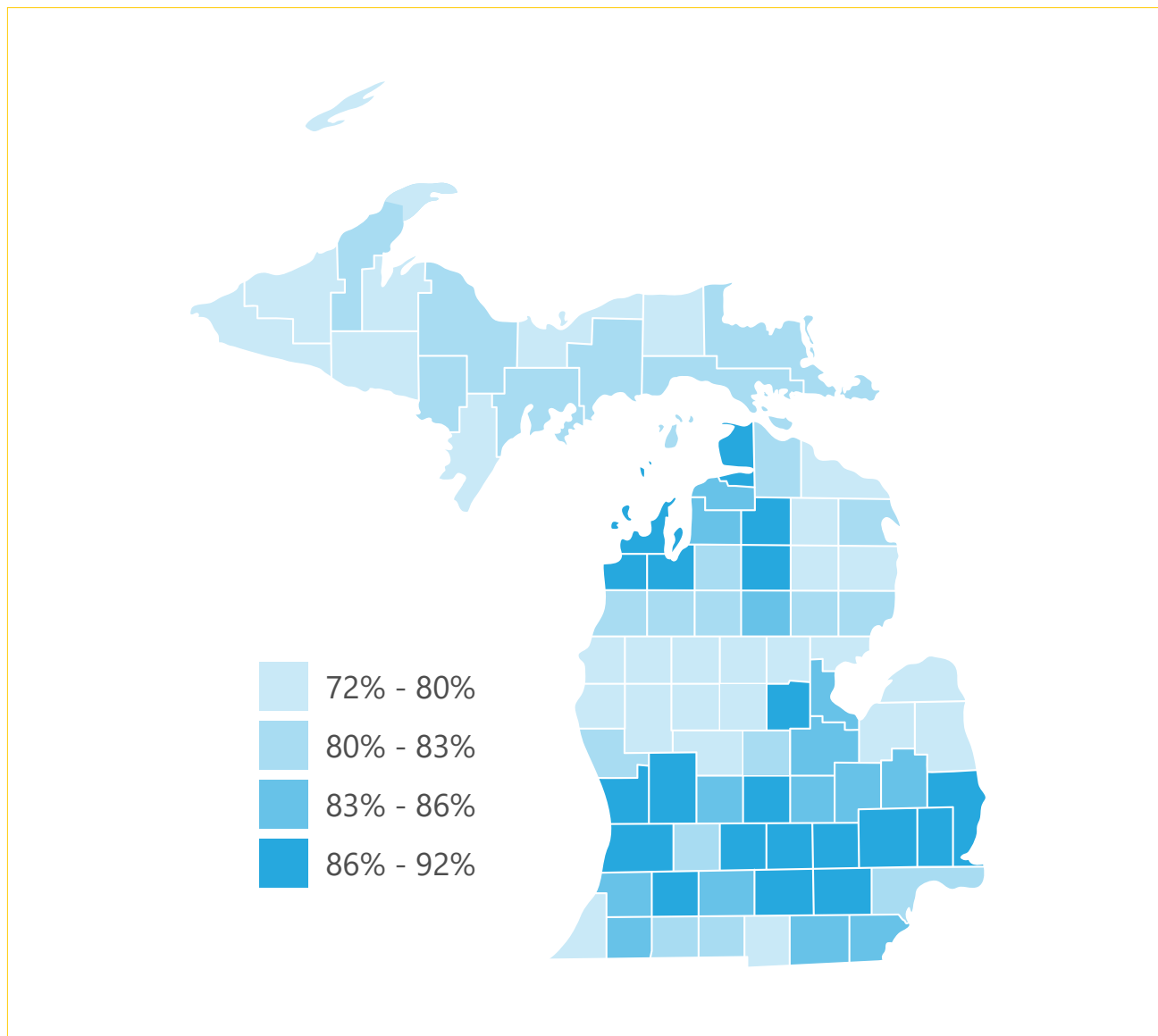
- Policies aimed at expanding broadband internet access in counties such as Lake County, Oscoda County, and Iron County may enhance telehealth utilization in these areas.
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For telehealth to be effective, it requires a reliable and fast internet connection, known as broadband. Without adequate broadband access, patients in rural and remote areas may have difficulty connecting with healthcare providers. In addition, healthcare providers in these areas may be unable to perform telehealth services. Therefore, broadband access is a crucial component for expanding telehealth and increasing access to healthcare in rural and remote areas.

To assess the degree of broadband access in Michigan, we examined data from the 2021 American Community Survey (5-year estimates). The survey, conducted annually by the United States Census Bureau, provides a comprehensive understanding of the social, economic, and housing characteristics of the U.S. population, including the number of households with an internet subscription for broadband.

Our analysis revealed that in Michigan, 86% of households had a broadband internet subscription. As a state, we ranked 28th in terms of the percentage of households with broadband internet subscriptions. At the county level in Michigan, broadband subscription rates ranged from 72% to 92%. As illustrated in the map below, the counties with the lowest broadband subscription rates included Lake County (72%), Oscoda County (72%), and Iron County (74%). As expected, these counties are located in rural areas of Michigan with limited access to broadband services.

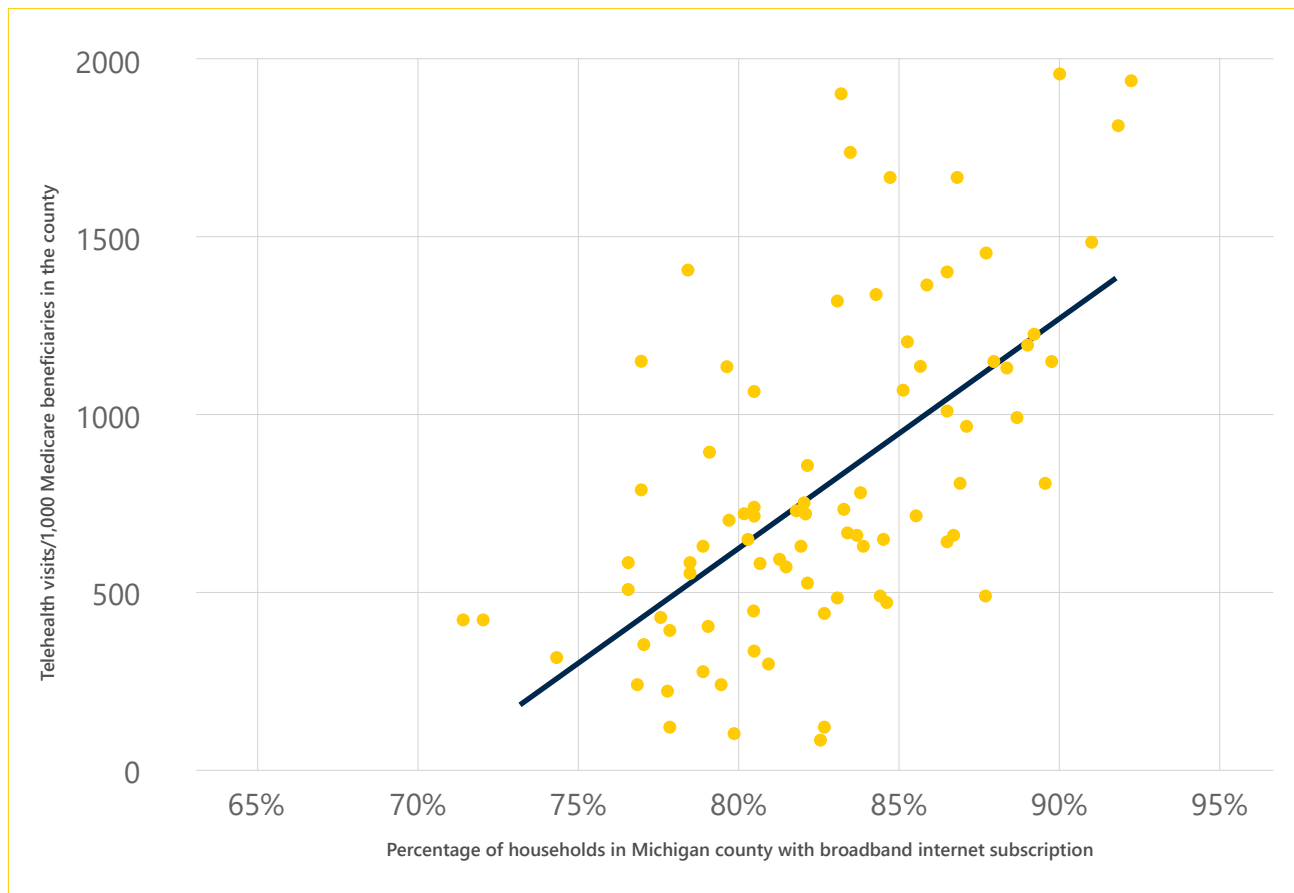
Exhibit 8: Percentage of Households in Michigan Counties that Had Internet Access through Broadband, 2021



Note: Data from American Community Survey, 2021

We analyzed the relationship between the percentage of households in a county with access to broadband and the number of telehealth visits per 1,000 Medicare beneficiaries in 2020. As expected, we found a positive correlation between these two variables ($r = 0.60$). The exhibit below shows the correlation between broadband access and telehealth utilization at the county level.

Exhibit 9: Correlation at the County Level between Broadband Access and Telehealth Visits



We divided the counties into two groups based on whether they were below or above the median for both broadband access and telehealth use. Exhibit 10 presents the Michigan counties that were below the median for both broadband access and telehealth use.

Exhibit 10: Michigan Counties with Below-Median Broadband Access and Telehealth Utilization

NAME	Telehealth visits per 1,000 Medicare FFS beneficiaries	Percentage of households with broadband internet subscription
State (median)	721	82.7%
Lake County	477	72%
Oscoda County	487	72%
Iron County	388	74%
Montmorency County	559	77%
Huron County	611	77%
Gogebic County	332	77%
Baraga County	422	77%
Oceana County	507	77%
Alcona County	486	78%
Luce County	310	78%
Keweenaw County	218	78%
Mecosta County	624	79%
Osceola County	610	79%
Newaygo County	473	79%
Presque Isle County	655	79%
Menominee County	356	79%
Alger County	333	80%
Ontonagon County	202	80%
Hillsdale County	721	80%
Mason County	665	80%
Gladwin County	718	80%
Ogemaw County	503	81%
Mackinac County	409	81%
Alpena County	618	81%
Delta County	376	81%
Kalkaska County	622	81%
Cheboygan County	603	82%
Iosco County	553	82%
Missaukee County	659	82%