



For a fairer fight against pandemics, ensure universal broadband access

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Economic Policy for a Pandemic Age
April 8, 2021

Covid-19 reproduced social disparities

- Infection rates, treatment availability, and vaccine access all vary by income, race and ethnicity.
- One factor driving these difference in public health delivery is persistently unequal access to residential broadband service.
- In addition to skewing access to remote work and distance learning, a failure to provide universal broadband access raises the mortality risks and reinforces existing social cleavages.

Internet access is a public health tool

- For citizens, home broadband allows easy access to
 - current information about local spread and necessary precautions;
 - announcements of new vaccine clinics;
 - state and local eligibility screening forms and sign-up lists.
- For public health officials, high internet penetration reduces the
 - cost of delivering up-to-date information to households;
 - difficulty of contact tracing;
 - complexity of ensuring wide and equal access to vaccination clinics

Lack of access is a public health problem

- Counties play a key role in the US public health system
- Counties contain very different populations, some of which will have higher Covid-19 mortality risk.
- Broadband access varies across counties due to 3 factors:
 1. Infrastructure in place (the pipes)
 2. Household income (the connections)
 3. Digital skills (the knowhow)
- Due to spatial clustering of households within and across counties, some counties are more “connected” than others.

Do less “connected” places have higher needs?

- We highlight an important but overlooked aspect of unequal internet access → spatial clustering of both residential broadband service and pandemic risk factors.
- We find that US counties with the highest share of vulnerable residents are also places where fixed residential internet service is least common.
- This link between poor health and digital isolation underscores the challenge faced by US localities struggling to provide equal public services to all their residents.

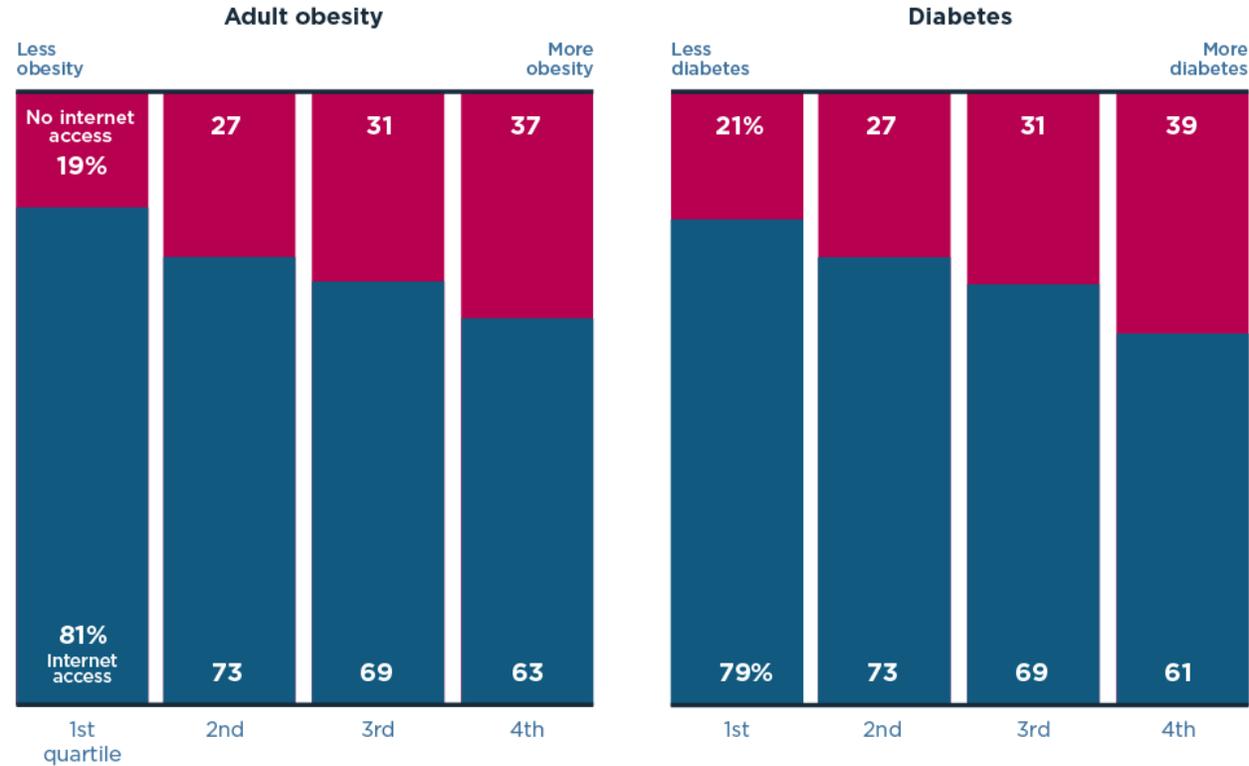
How we investigate this connection

- Drawing upon data from the FCC's *Mapping Broadband Health in America* project and US Census, we sort counties into quartiles based on health and demographic characteristics of their populations.
- For each quartile, we calculate the average share of county households with fixed residential broadband service.
- The residential service we observe may be of low-quality, such a dial-up modem, so it may be considered a “best case” scenario.

Figure 1

US counties with higher concentrations of vulnerable populations often have lower internet connectivity

Percent of US households with or without internet connection by health characteristics, quartiles



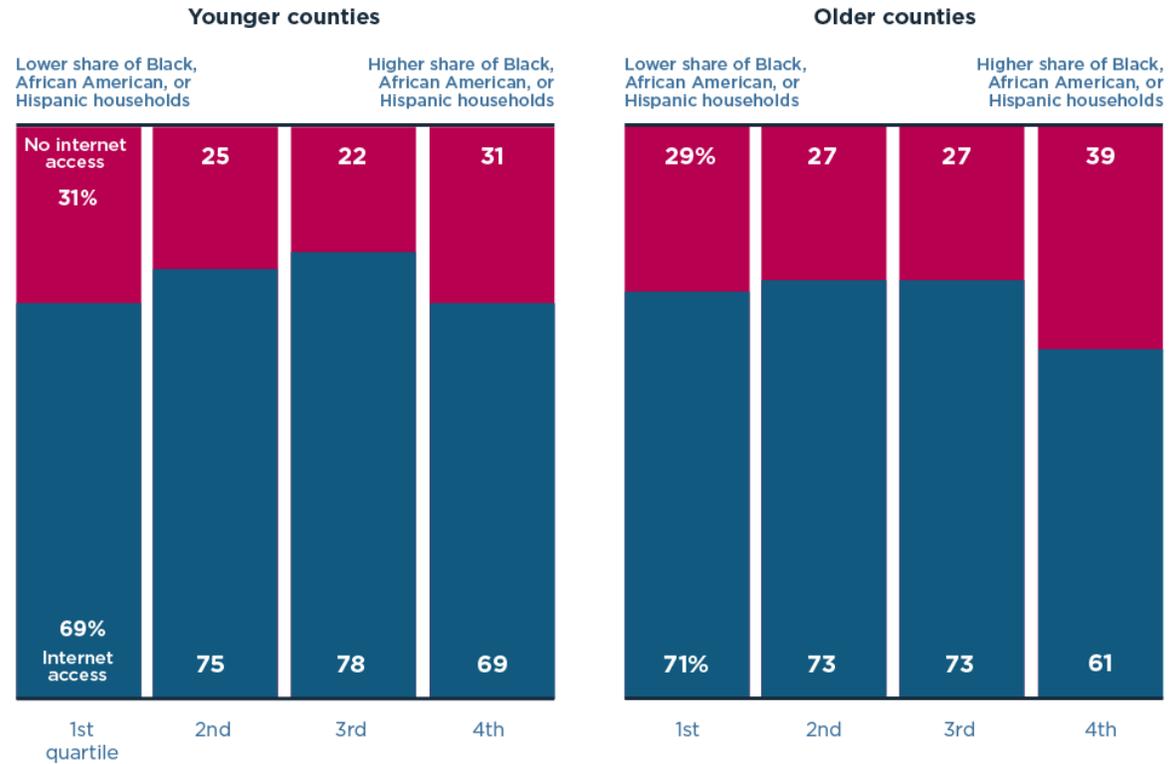
Note: Data refer to mean share of US households with residential fixed internet connection over 200 kbps in at least one direction among counties in corresponding quartile.

Sources: Sources: Federal Communications Commission; Centers for Disease Control and Prevention.

Figure 2

US counties with more elderly, nonwhite populations are the hardest to reach digitally

Percent of US households with or without internet connection by age and Black, African American, or Hispanic population, quartiles



Note: “Younger counties” are counties where the share of the population aged 65 and over is below the US median. “Older counties” are counties where the share of the population aged 65 and over is above the US median. Data refer to mean share of households with residential fixed internet connection over 200 kbps in at least one direction among counties in corresponding quartile.

Sources: Federal Communications Commission; US Census Bureau.

Failure to invest has left us vulnerable

- Counties with largest share of residents with noted co-morbidities have lowest residential internet uptake.
- Counties where equal access to state resources is of concern (larger shares of rural residents and larger shares of minorities residents) have lower residential internet uptake.
- Differential access across counties will hinder detecting the next pandemic and protecting all citizens equally .

Relief and recovery funds are a start...

- Efforts early in pandemic centered on support for telemedicine.
- The CARES Act took aim at helping people get on-line for health care and remote schooling but did not add substantially to residential access.
- The Consolidated Appropriations Act, 2021 provides temporary expansion of Emergency Broadband assistance – subsidies to service providers to offer free or low-cost internet plans to eligible households.
- American Rescue Plan expands funding for residential access and extends funding for broadband infrastructure investment.

But we need to do more for a fair fight

- Invest in the infrastructure needed to make high-speed internet access universal.
- Assist low-income households' ability to afford basic service connections.
- Continue to fund efforts by community anchors to assist those who need help getting on on-line