

Rural Telehealth

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Definitions



- ▶ Types of telehealth
 - ▶ Synchronous
 - ▶ Live, in person visits
 - ▶ Asynchronous
 - ▶ “store and forward”
 - ▶ Remote Patient Monitoring
 - ▶ “Apple watch”, CGM
- ▶ Mobile Health
 - ▶ Health apps, Headspace
- ▶ E-consults
- ▶ Telementoring

History



- 1920's – Radio
- 1960's – NASA
- 1967 – two way video link in Nebraska between med school and psych hospital
- 1970 – 1990 – development, limited by lack of broadband
- 2000's – initial development
- 2020 - COVID

Rural telehealth

- Rural Broadband
- 2002 – Farm Bill
- 2008, 2014 – Expansion
- 2018 – continued rural expansion
- 2022 – Infrastructure investment and jobs act

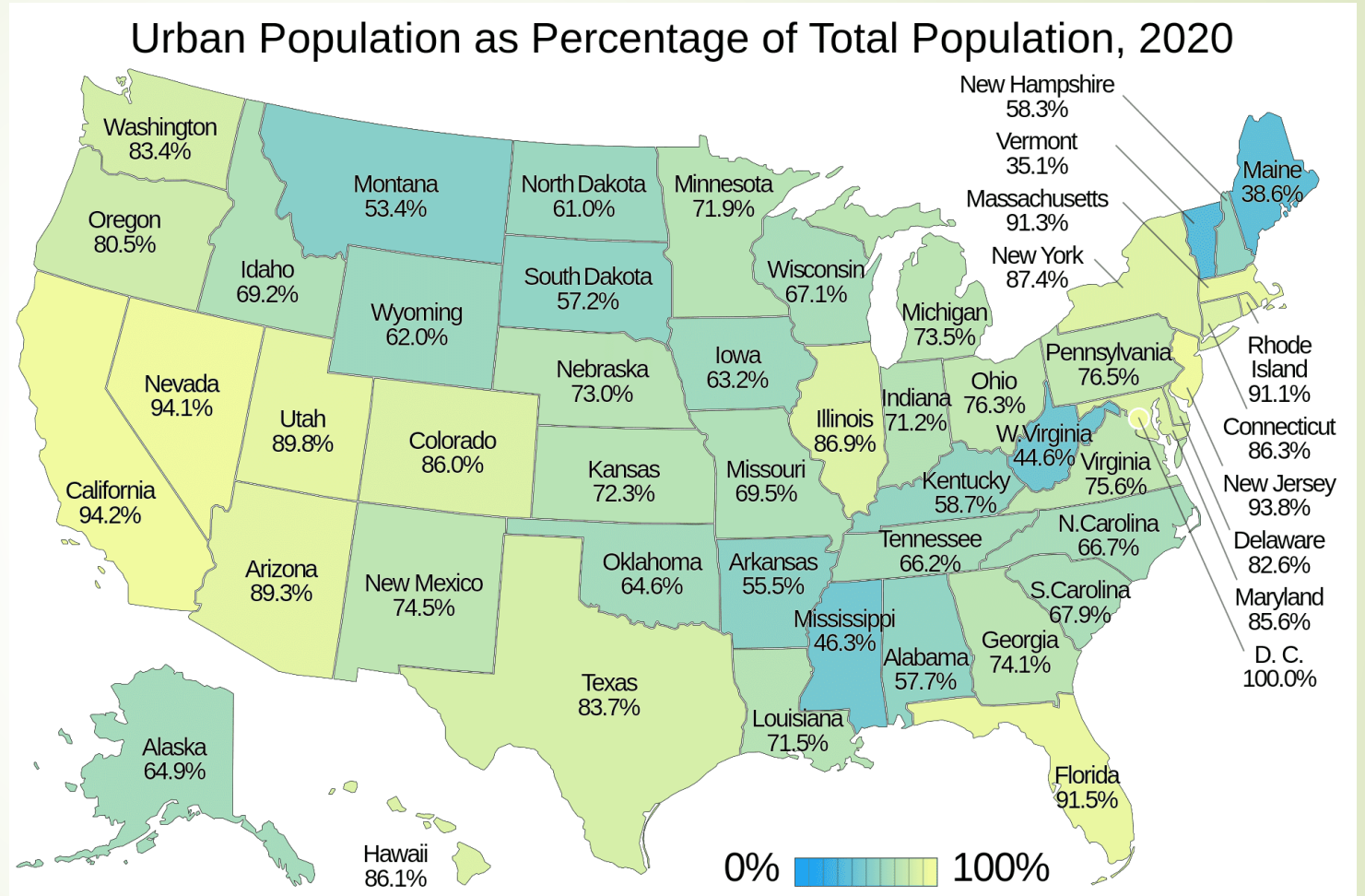
- Currently – mostly commercially provided



What is rural, anyway?

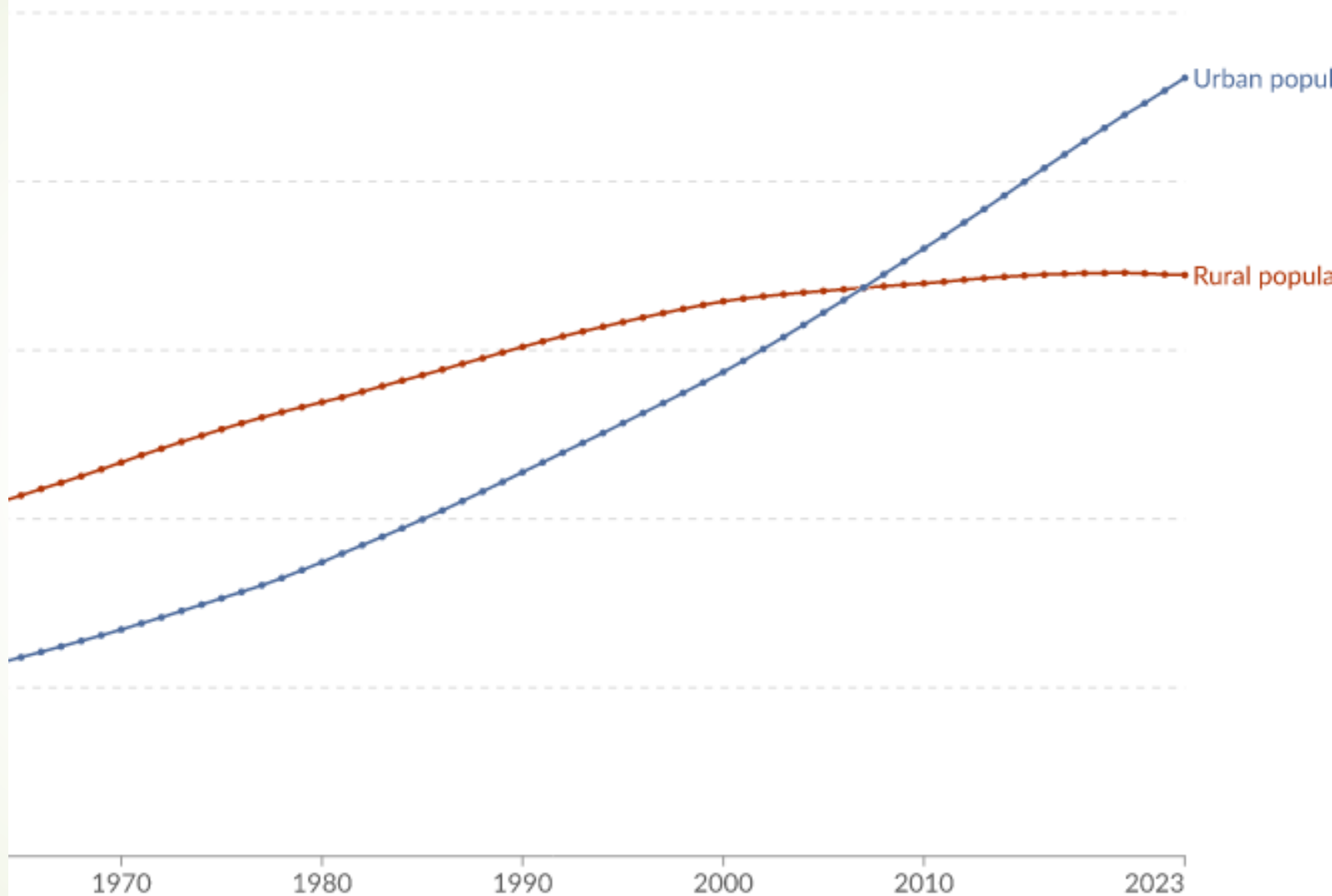
- Lots of different definitions!
- My personal favorite: [Am I rural?](#)

Urban Population Percentage by State



Rural Trends

of people living in urban and rural areas, World



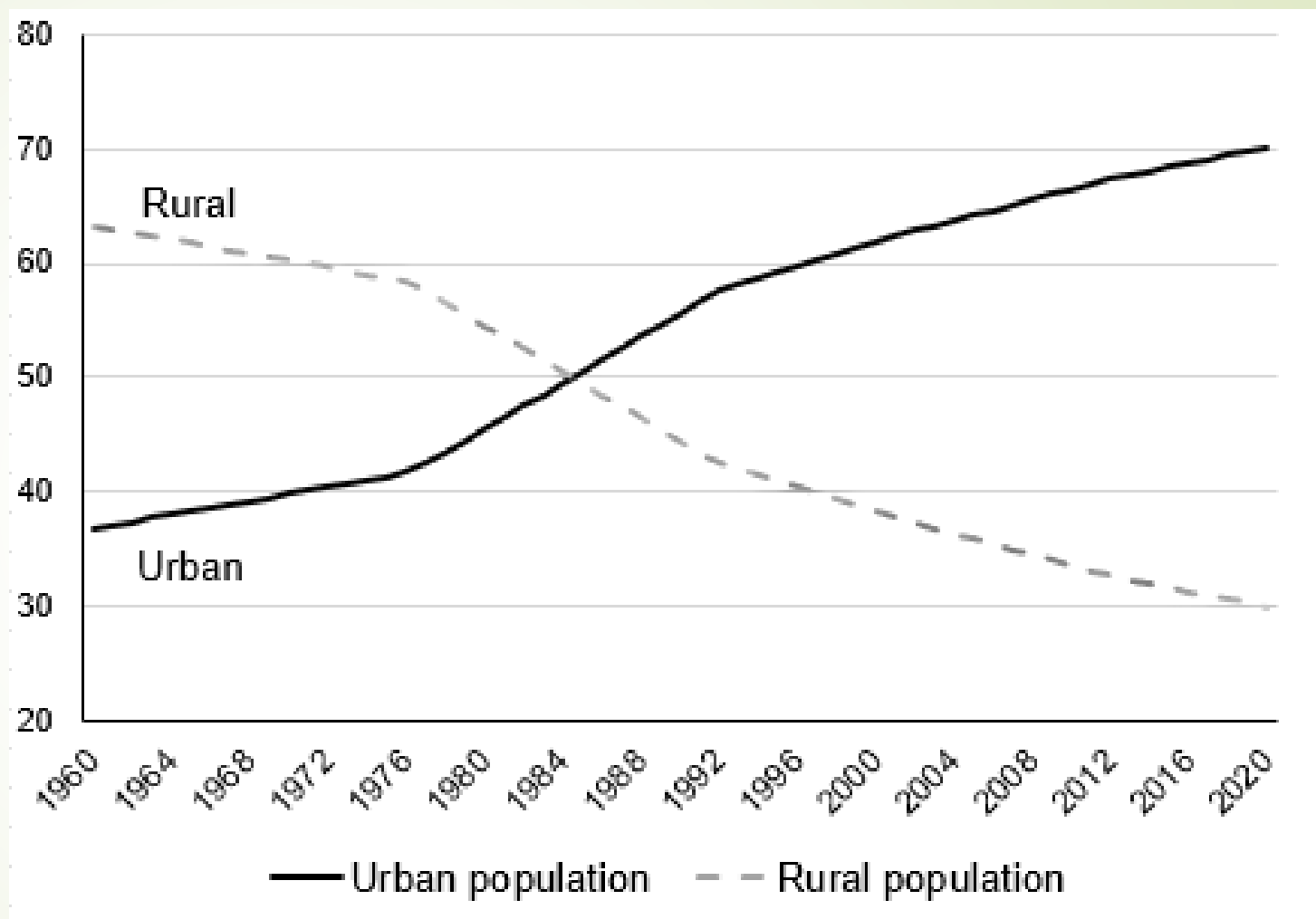
World Bank based on data from the UN Population Division (2025)

OurWorldinData.org/urbanization

The estimates of city and metropolitan areas are based on national definitions of what constitutes a city or metropolitan area. Comparisons should be made with caution.

US Rural trends

- Currently, about 20% of US population is rural – but only 10% of physicians
- Rural Income lags urban
- Rural populations tend to be older and sicker



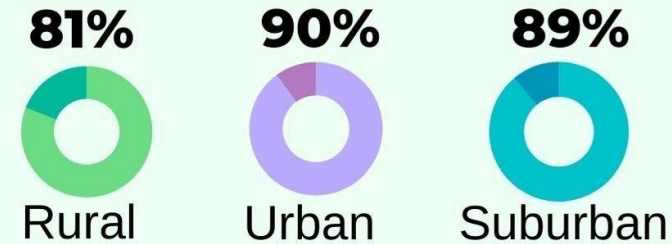
Left Behind: Health Care in Rural America

Rural Residents Face Health and Health Care-Related Vulnerabilities

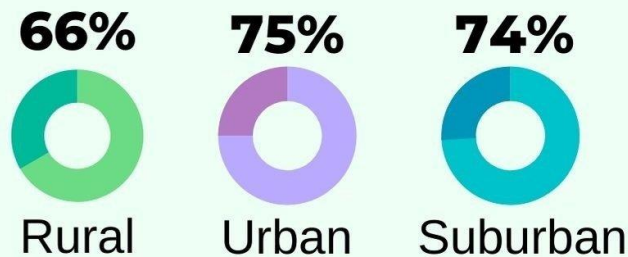
Rural residents are **less likely** to describe themselves as being in excellent/good health.



Rural residents are **less likely** to have health insurance.



Rural workers are offered **fewer** health care benefits by their employers.



Rural residents are **less likely** to use mobile health technology.

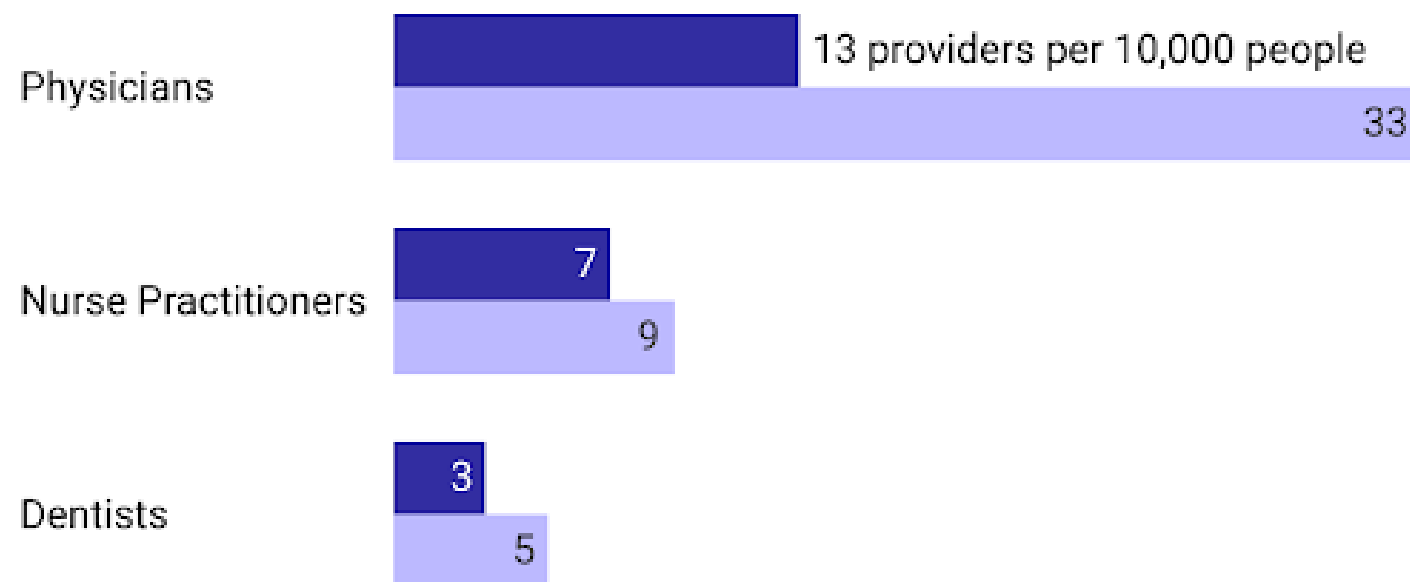


SOURCE: Nonprofit Transamerica Center for Health Studies®, Left Behind: Health Care in Rural America ©2020
Read the full report at: www.transamericacenterforhealthstudies.org

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Less Health Care providers

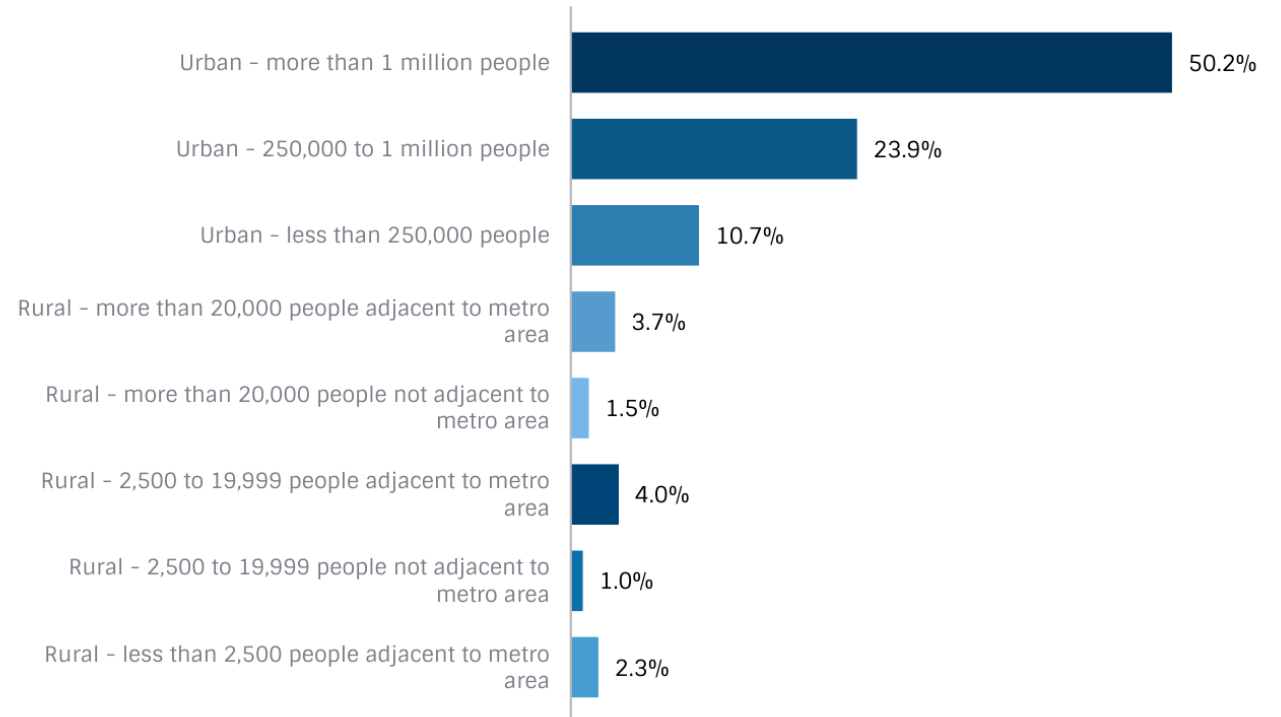
Health provider density within metropolitan and nonmetropolitan areas, 2019



Data source: Assistant Secretary for Planning and Evaluation; Health Resources and Services Administration

And PA's too!

Distribution of Physician Assistants by Urban-Rural Area Status



The majority of PAs work in large, urban areas with more than one million people



Infrastructure:

- https://broadbandmap.fcc.gov/area-summary/combined?version=jun2024&zoom=4.00&vlon=-106.501672&vlat=42.010727&fixed_br=r&fixed_speed=100_20&fixed_tech=1_2_3_4_5_6_7_8&fixed_pct_cvg=0&mobile_tech=tech_all&mobile_env=0&mobile_pct_cvg=0
- It's actually pretty good! Only a sliver of North Central WA, for example, doesn't have broadband even by the new, higher standards

Panacea

- Initially:
- Thought this would solve a lot of rural health issues and inequities
 - Access to health care
 - Access to specialists
 - Reduce travel time
 -



Reality

Not so much

CBHA: 1 – 2 % of visits telehealth; 10% behavioral health

CVCH: 1 – 2% visits

Confluence Health: 1- 2% visits

Newport: < 1% of visits, 10% Behavioral Health



Provider Quotes

- ▶ “I think I remember how to log in to Doxy.me”
- ▶ “My patients hate it”
- ▶ “It never works”
- ▶ “Watching my patients struggle with tech is hilarious but time consuming”





But it's not all bad

- Telementoring has a huge uptake
 - ECHO
 - SPARK
 - TASP
- Teleconsults are also increasingly used
 - Telestroke
- Telehealth elective at UWSOM is very popular

Summary

- ▶ Telehealth is not the panacea we thought it would be in Rural Areas, for a variety of factors
- ▶ Telementoring and e-Consults are really valuable and underutilized
- ▶ Broadband investment in rural areas has been very successful – but maybe not for telehealth

