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THE **TeleBehavioral Health Summit**
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Welcome!

**Title: Hard Math - How to use Telehealth
without Multiplying the Digital Divide**

Speakers:

Garret Spargo, MA

Viola Samson, BSN



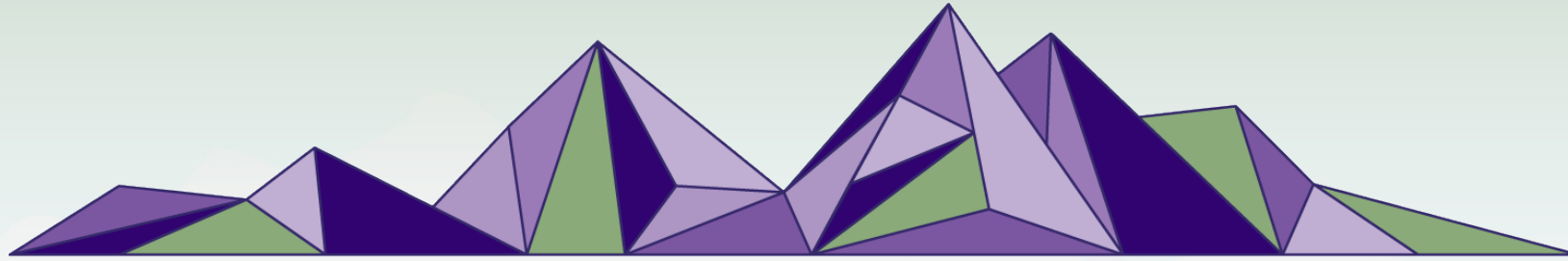
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A few notes.....

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- ✓ Today's talk is purely for informational purposes; and is not to be regarded as legal advice. Please consult with legal counsel, as well as current legislative and regulatory sources, for accurate and up-to-date information.
- ✓ WHOVA Q&A for content questions for speakers.
 - ✓ WHOVA chat for logistics questions and technical support.
- ✓ Evaluation → Certificate of Attendance and/or CME credits.

We gratefully acknowledge support from:





— THE **TeleBehavioral Health Summit** —

Hard Math: How to use Telehealth without Multiplying the Digital Divide

Garret Spargo, Director of Enterprise Architecture at ANTHC

Viola Samson, Manager of Telehealth Program Development at ANTHC

Learning Objectives

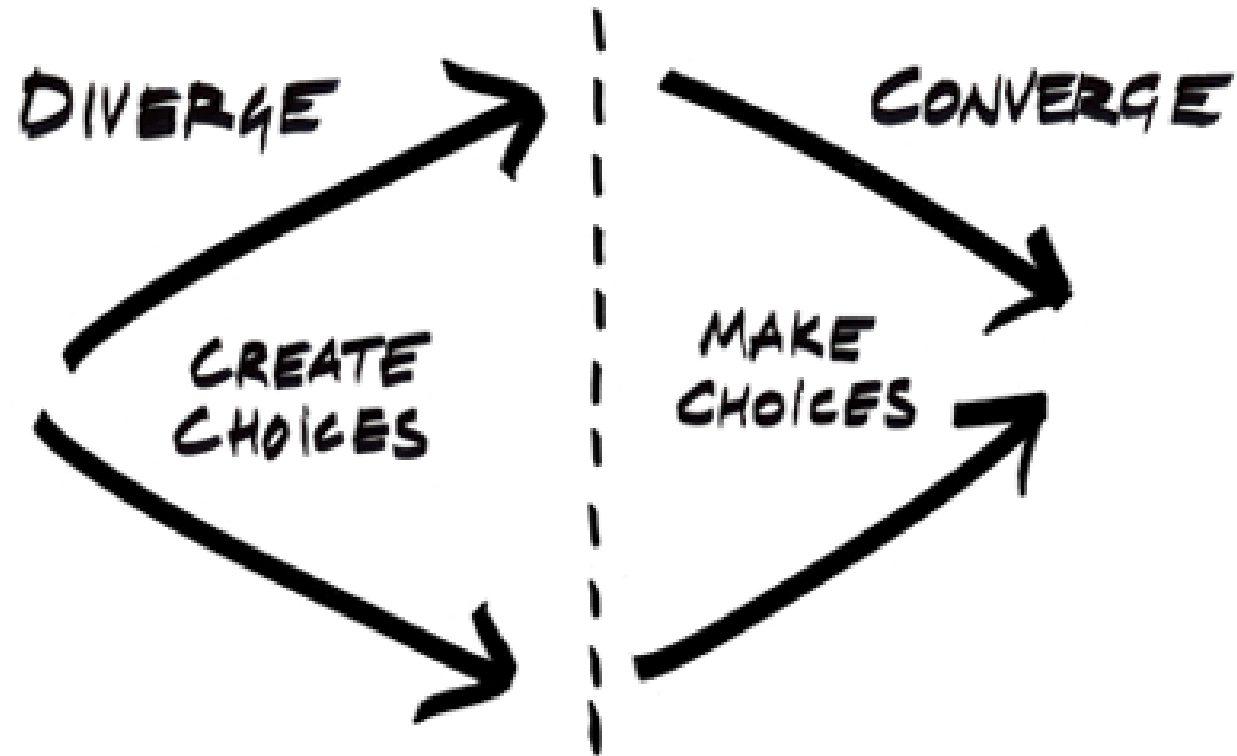
- 1) Describe the complex issues that comprise the “Digital Divide”
- 2) Explain the role of telemedicine in bridging or exacerbating the “Digital Divide”
- 3) Apply workflows, tools, and strategies that make telehealth more accessible and comfortable for underserved patients

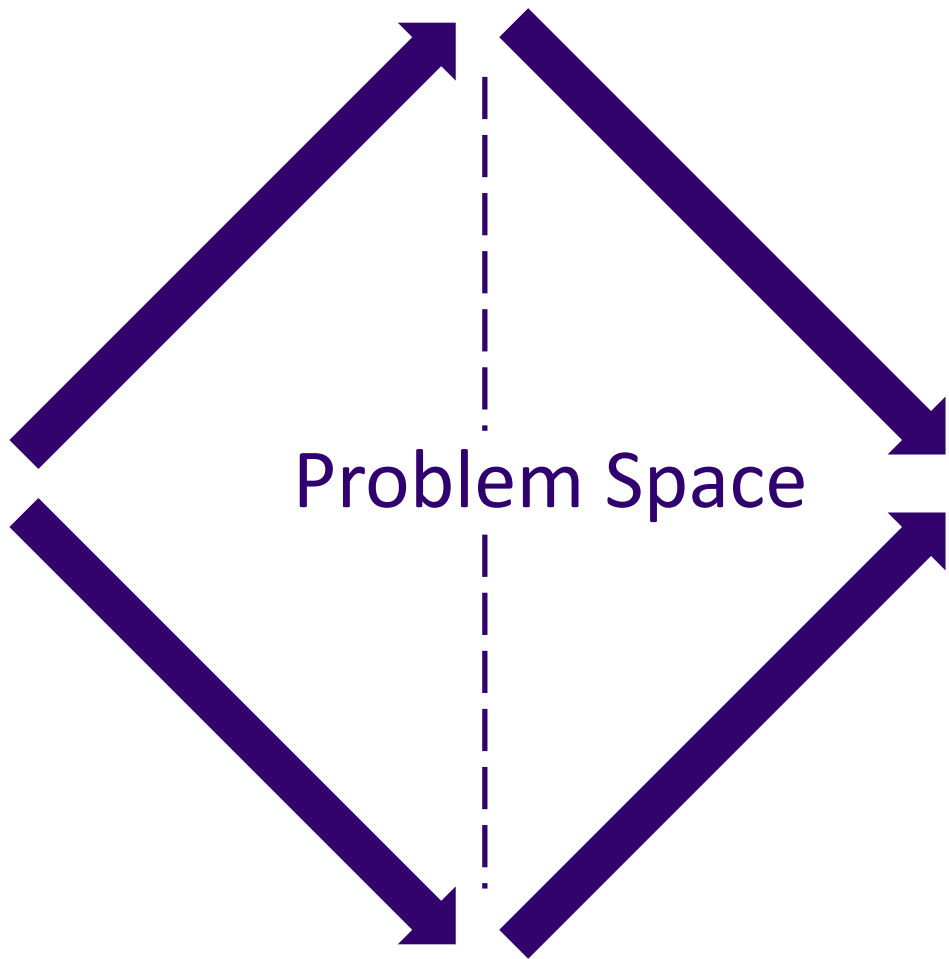
Problem Space



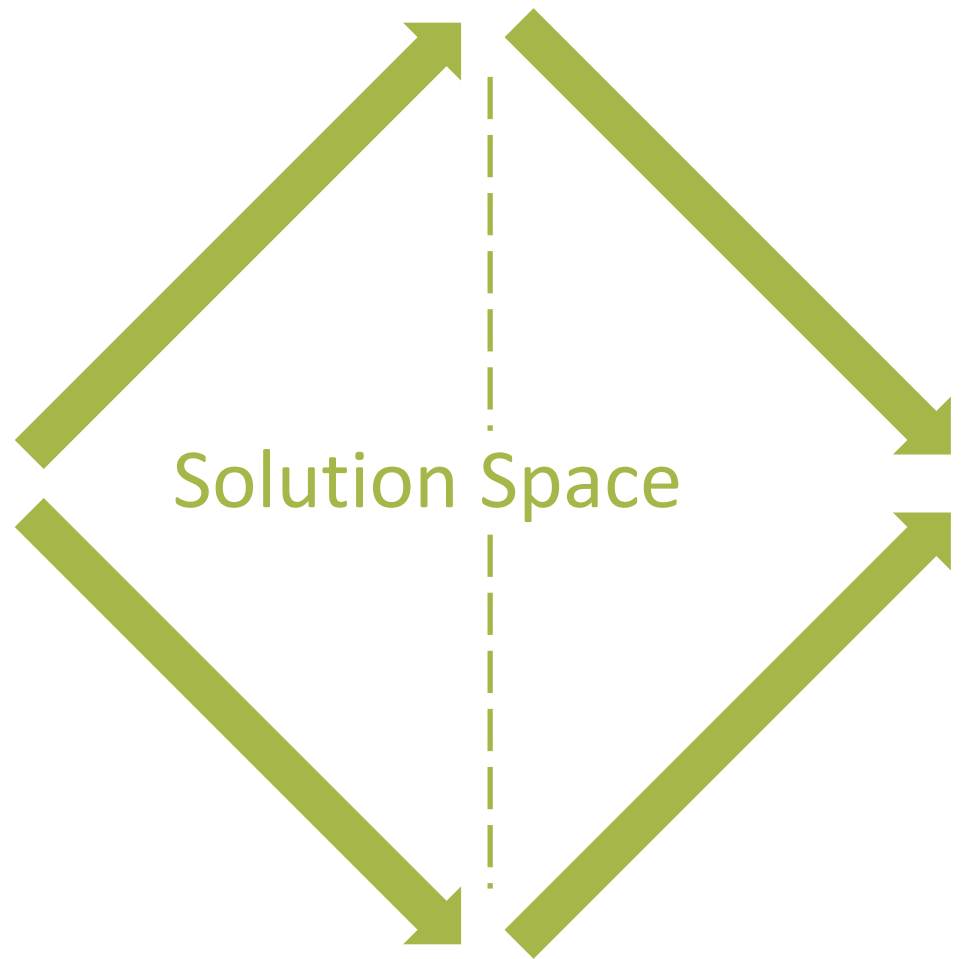
Solution Space







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Digital Divide – What Is It?

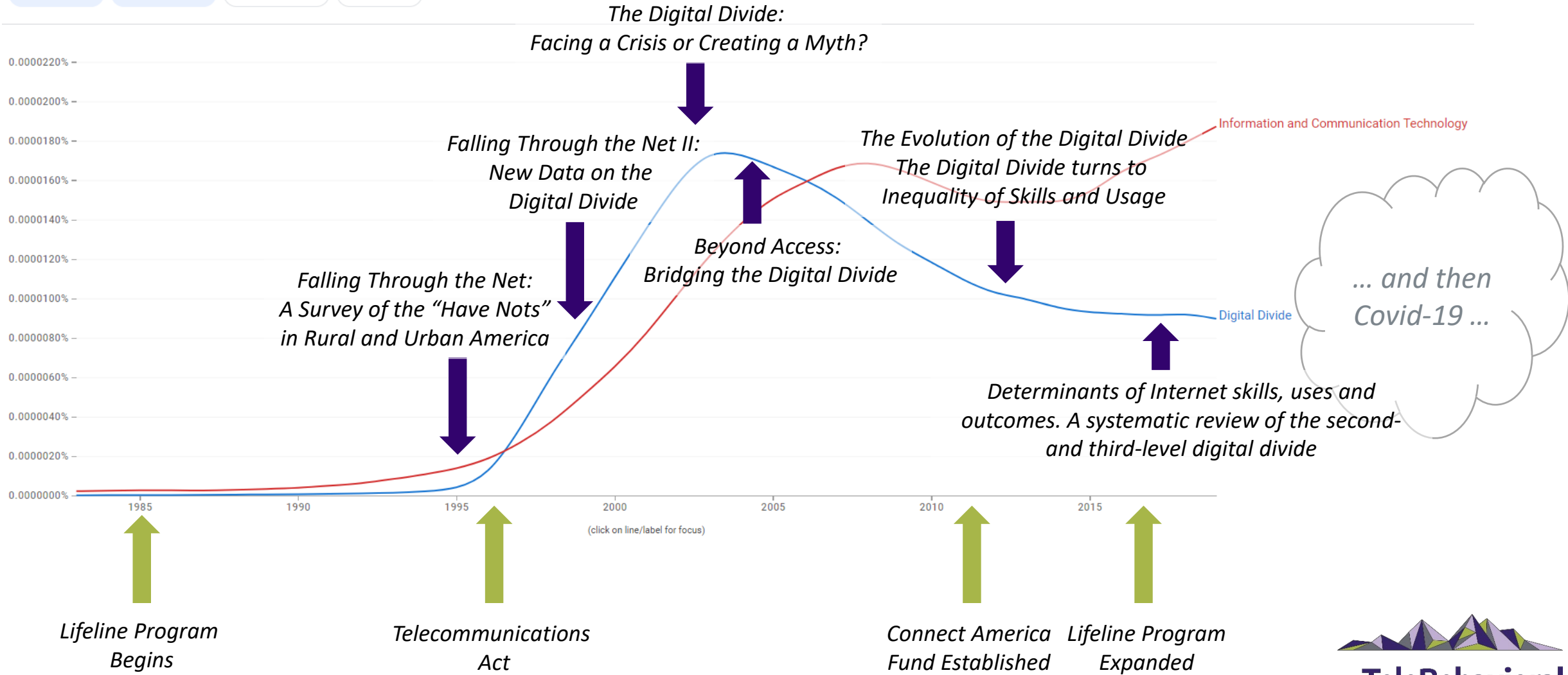
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The uneven distribution of “Information and Communication Technologies” (ICT) in society.

”

Digital Divide – A Brief History

1983 - 2019 English (2019) Case-Insensitive Smoothing



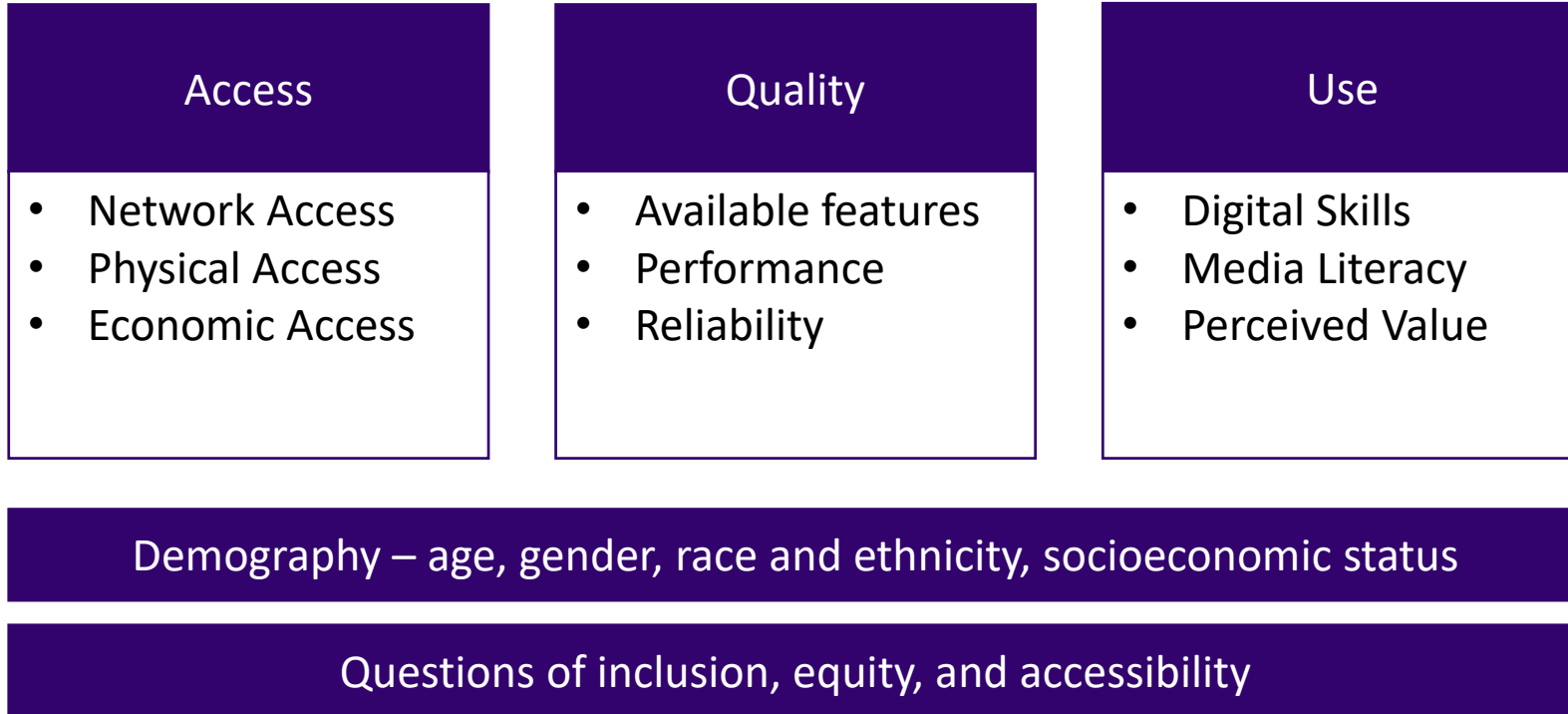
Digital Divide – What Is It?

“

The economic, educational, and social inequalities between those who have computers and online access and those who do not.

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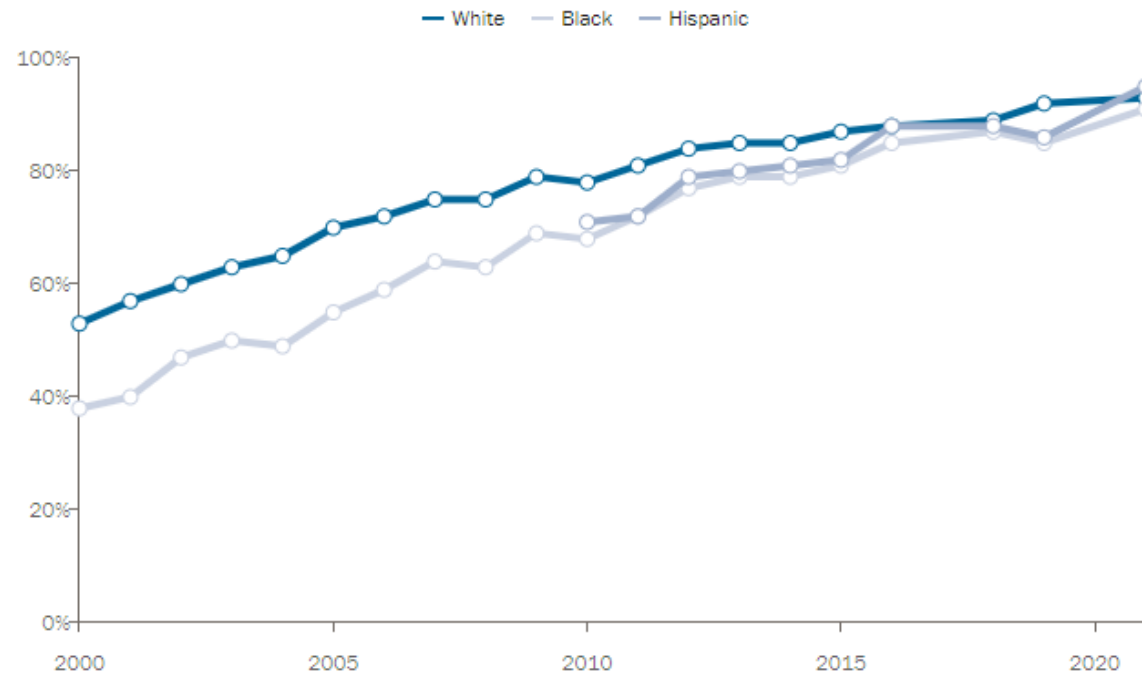
Digital Divide – What Is It?



Digital Divide – Internet Use by Race or Ethnicity

Internet use by race/ethnicity

% of U.S. adults who say they use the internet, by race/ethnicity



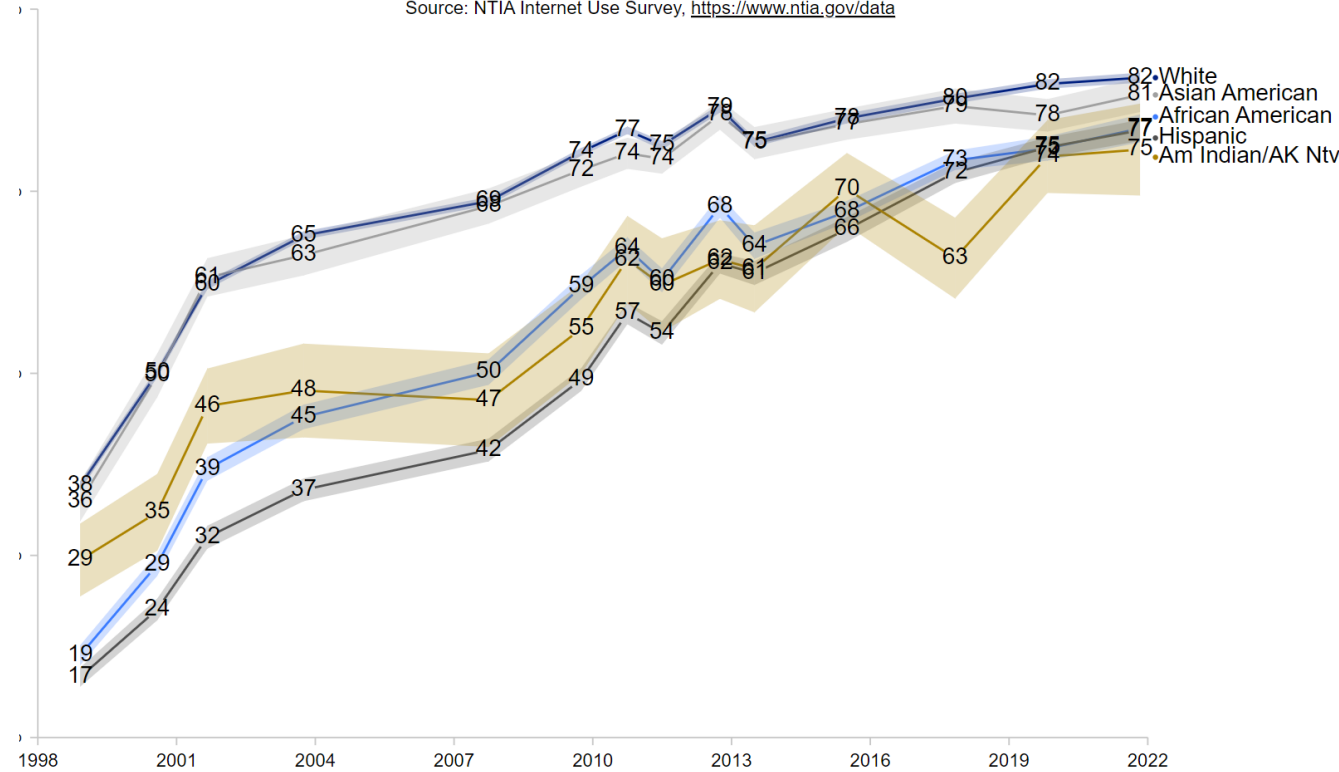
Note: Respondents who did not give an answer are not shown. White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race.

Source: Surveys of U.S. adults conducted 2000-2021. Data for each year based on a pooled analysis of all surveys conducted during that year.

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Figure 1: Internet Use by Race or Ethnicity, Percent of Age 3+ Persons, 1998–2021

Source: NTIA Internet Use Survey, <https://www.ntia.gov/data>

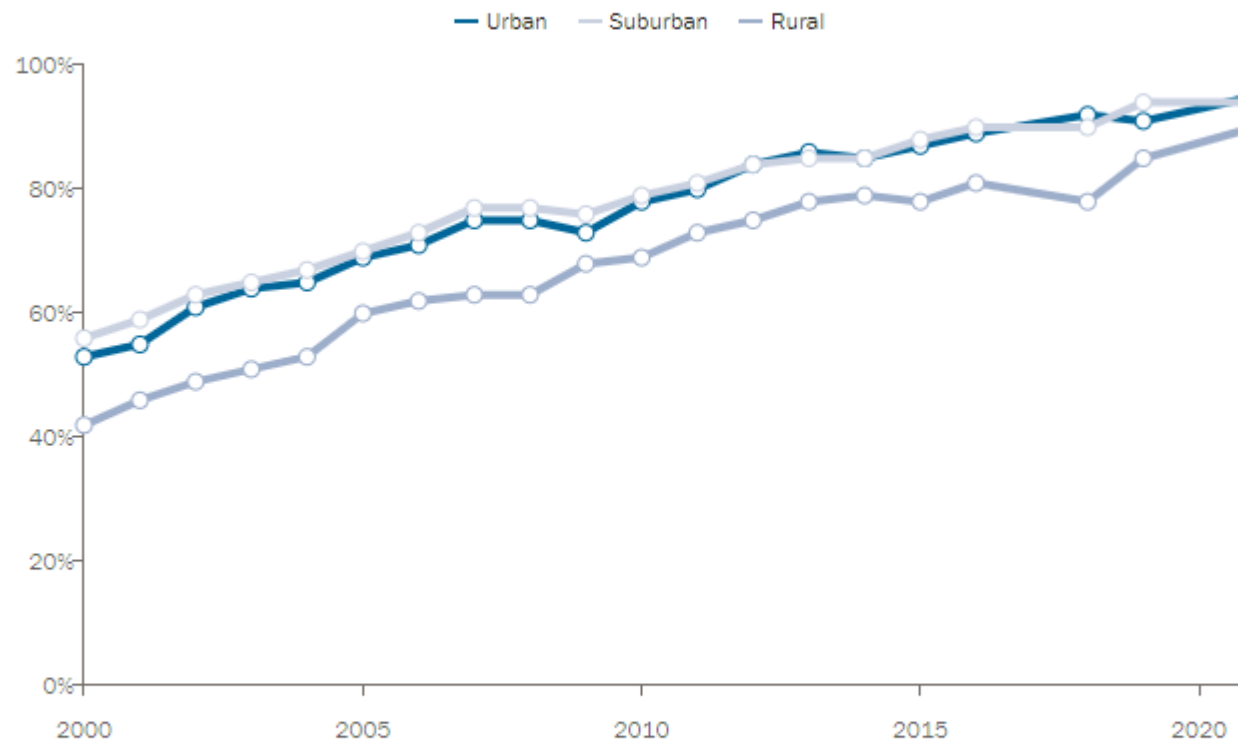


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Digital Divide – Internet Use by Community Type

Internet use by community type

% of U.S. adults who say they use the internet, by community type



Note: Respondents who did not give an answer are not shown.

Source: Surveys of U.S. adults conducted 2000-2021. Data for each year based on a pooled analysis of all surveys conducted during that year.

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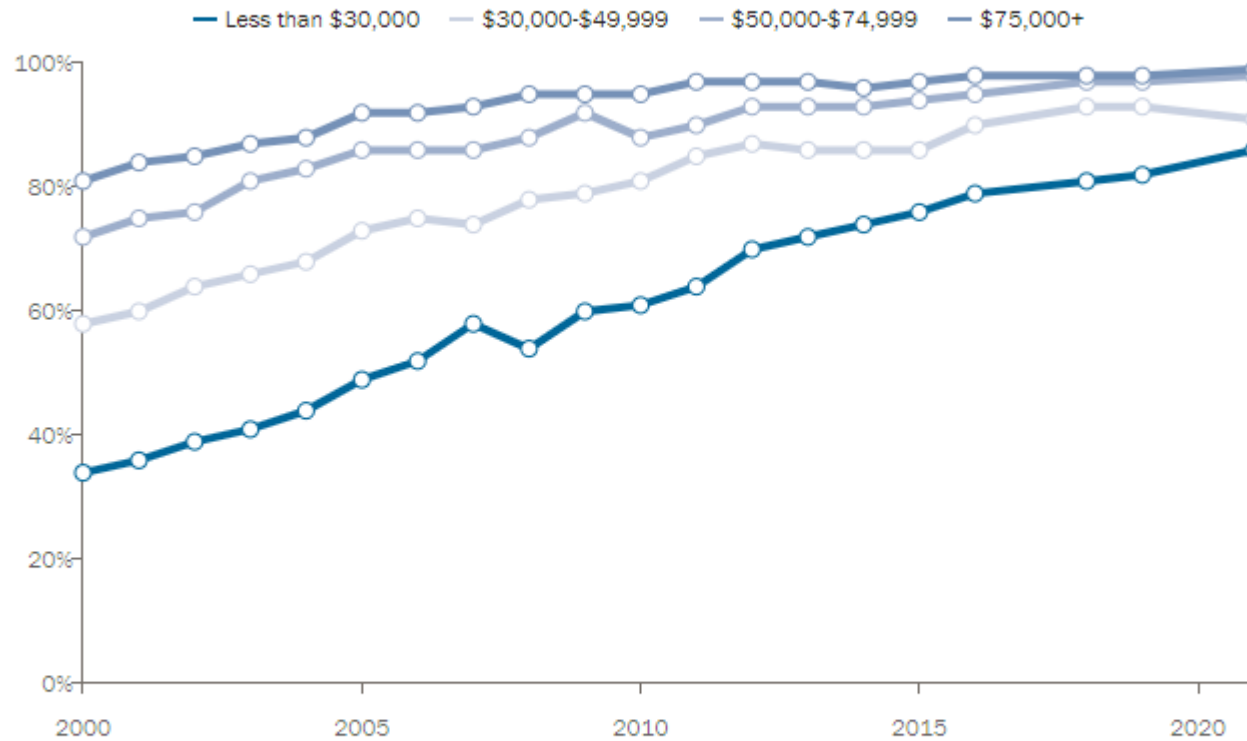


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Digital Divide – Internet Use By Income

Internet use by income

% of U.S. adults who say they use the internet, by annual household income



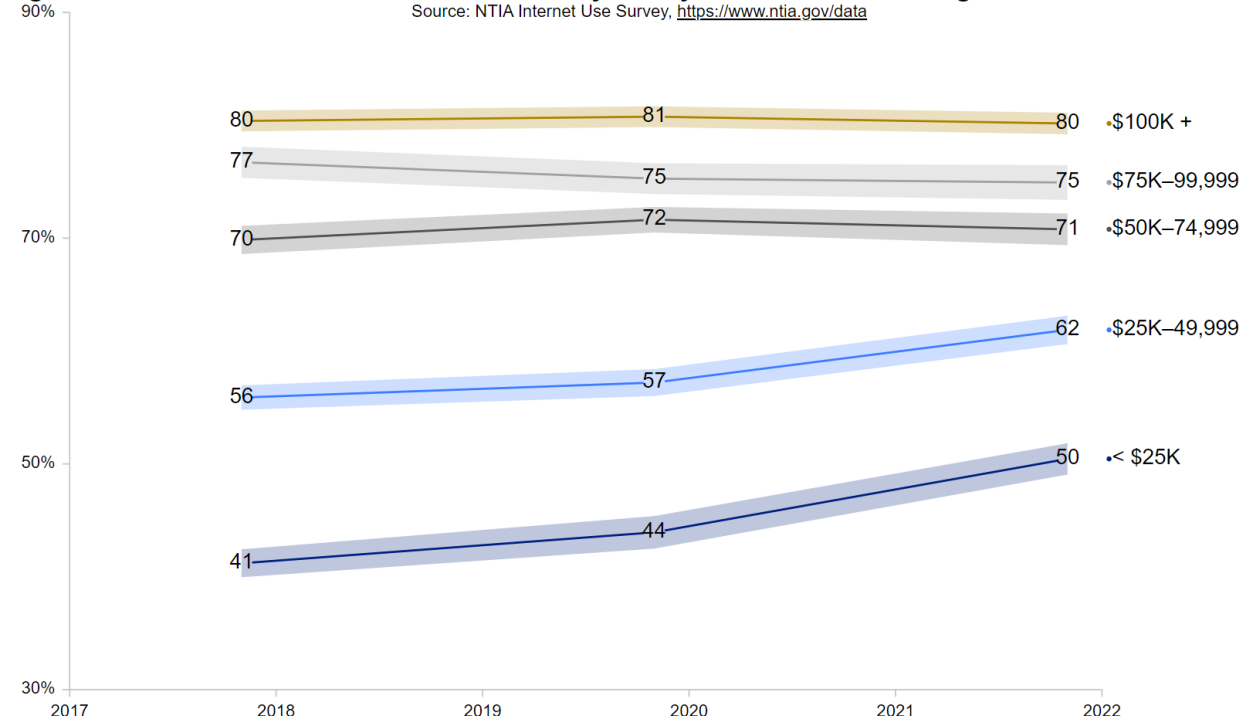
Note: Respondents who did not give an answer are not shown.

Source: Surveys of U.S. adults conducted 2000-2021. Data for each year based on a pooled analysis of all surveys conducted during that year.

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Figure 2: Fixed + Mobile Internet in Household by Family Income, Percent of Age 3+ Persons, 2017–2021

Source: NTIA Internet Use Survey, <https://www.ntia.gov/data>



Digital Divide – Reasons for Not Using the Internet at Home

Figure 1: Main Reason for Not Using the Internet at Home, Percent of Offline Households, 2001–2021

Source: NTIA Internet Use Survey, <https://www.ntia.gov/data>

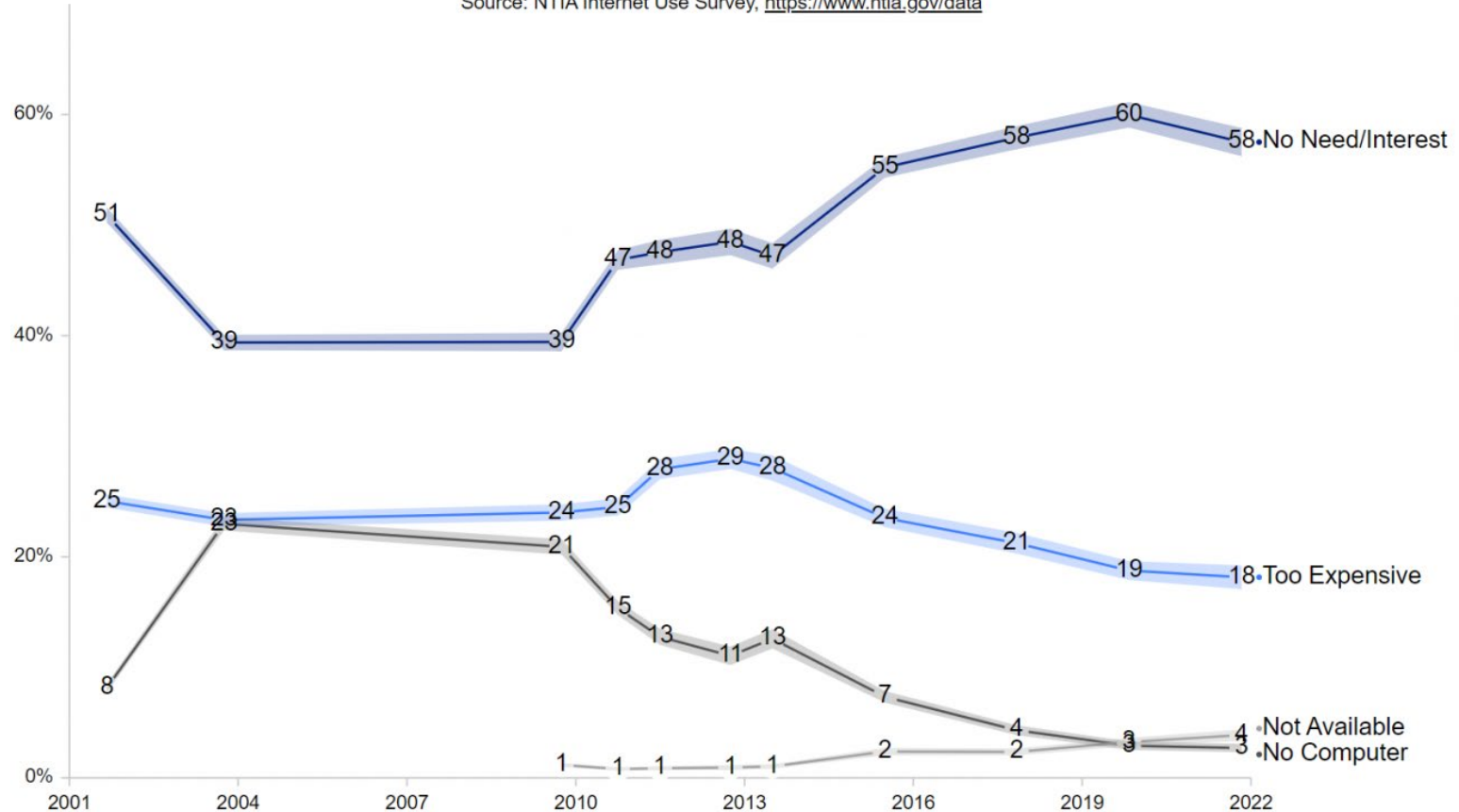


Figure 2: Selected Characteristics by Home Internet Use or Non-Use
Percent or Mean Response of Households, 2021

	Internet at Home	No Need/Interest	Too Expensive
Total Households	108.5 million	13.8 million	4.4 million
Family Income < \$25K/Year	15%	35%	45%
School-Age Child Present	24%	12%	19%
Located in Rural Area	12%	16%	14%
Internet Use at Other Locations	85%	13%	24%
Previous Home Internet Use	N/A	14%	29%
Household Reference Person* Characteristics			
Mean Age	50.6	60.5	51.3
No Post-Secondary Education	30%	59%	57%
White, non-Hispanic	66%	61%	49%
African American, non-Hispanic	12%	16%	25%
Hispanic	14%	17%	19%
Willingness to Pay for Home Internet Service (Per Month)			
Mean Price	N/A	\$5.92	\$15.69
Price is \$0 or "None"	N/A	83%	54%

* The reference person is the first individual in each household who is identified as owning or renting the housing unit.

Internet != Broadband

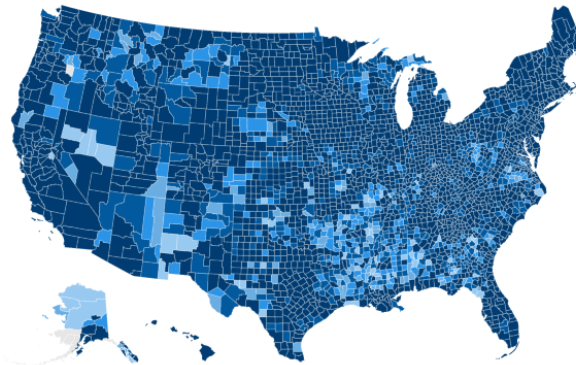
- Internet
 - “An electronic communications network that connects computer networks and organizational computer facilities around the world.”
- Broadband
 - “Internet access that is always on and faster than the traditional dial-up access” (US National Broadband Plan, 2009)
 - Also, an FCC definition of bits per second of data download or upload
 - Currently 25 Mbps download / 3 Mbps upload (FCC, 2015)
 - Previously 4 Mbps down / 1 Mbps up (FCC, 2010)
 - There are calls to expand this to either 100/100 or 100/20
- Broadband can be delivered over fiber, copper, cellular, or satellite
- Broadband defines throughput, not the quality of connection

Who Does (and Doesn't) Have Broadband?

Number of People in United States Who Lack Broadband Access (Estimated)

- FCC Data – 14.5 million people
- Broadband Now – 41 million
- Microsoft – 120.4 million

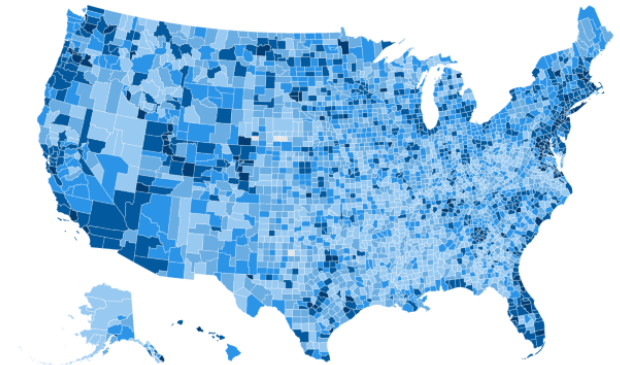
FCC indicates broadband is not available to
~14.5M people



FCC broadband availability*
0% >0 to 20% >20% to 40% >40% to 60% >60% to 80% >80% to 100%

* FCC Broadband has or "could" provide greater than or equal to 25 Mbps / 3 Mbps

Microsoft data indicates ~120.4M people do
not use the internet at broadband speeds



Broadband usage**
0% >0 to 20% >20% to 40% >40% to 60% >60% to 80% >80% to 100%

** Broadband speeds greater than or equal to 25 Mbps

Sources: FCC Fourteenth Broadband report based on form 477 data from December 2019 and Microsoft data from October 2020
To assist with additional broadband mapping analysis data has been made downloadable [here](#). Learn more in this [GitHub repository](#).

What's being done about it?

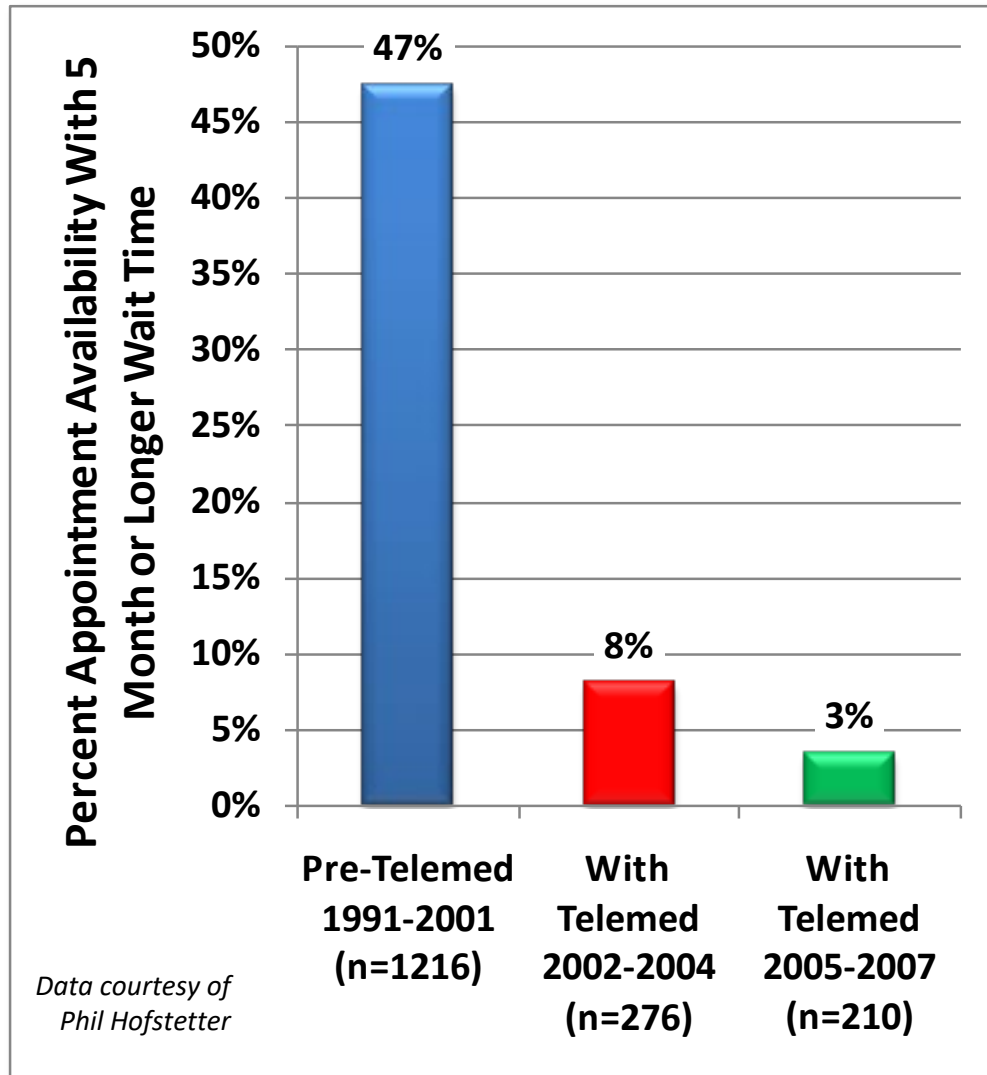
Three big things at the federal level

- Broadband Deployment Accuracy and Technological Availability (DATA) Act, March 2020
 - Provides \$65 million to improve mapping of broadband access
 - Still defines served as *could* serve, and doesn't include cost data
 - <https://broadbandmap.fcc.gov/>
- Infrastructure Investment and Jobs Act, November 2021
 - Includes \$65 billion in funding for broadband expansion
 - \$42.5 billion directed towards the Broadband Equity, Access, and Deployment (BEAD) program
- Affordable Connectivity Program (previously EBB)
 - \$14 billion program to subsidize connectivity in low-income and tribal communities

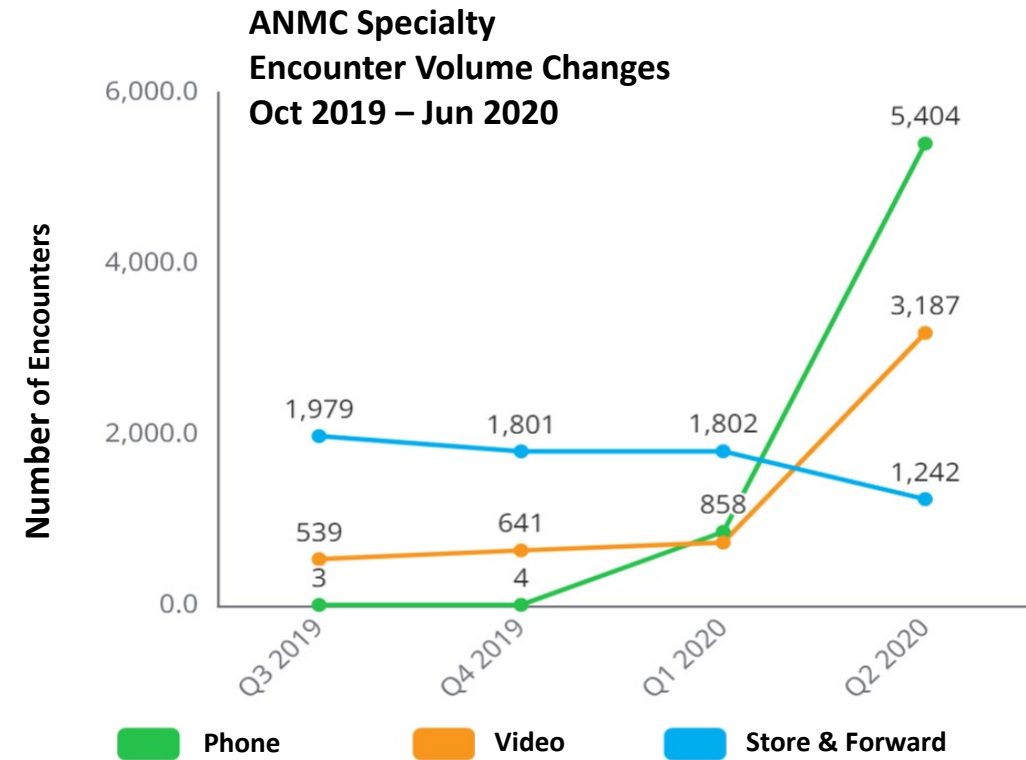
Is Telehealth Increasing Inequity?



A Tale of Two Solutions



Clinic-to-Clinic Telemedicine circa 2000-2007



Direct-to-Patient Telemedicine circa 2019-2020

Telehealth in the Alaska Tribal Health System

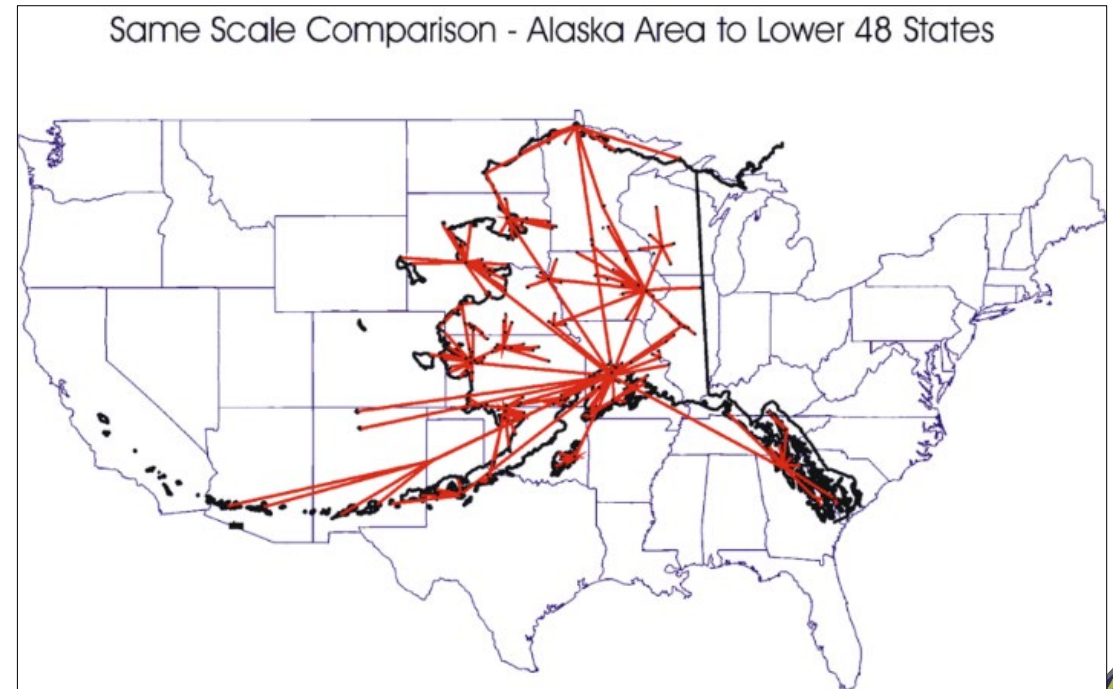


Alaska Tribal Health System



- Voluntary affiliation of 30 Alaskan tribes and tribal organizations providing health services to over 180,000 Alaska Natives/American Indians
- Each is autonomous and serves a specific geographical area
- 180 village clinics; 30 hub sites; 7 hospitals

Same Scale Comparison - Alaska Area to Lower 48 States



- Alaska Communities
 - 75% cannot drive to a hospital
 - 25% have <1000 people
 - Avg. travel to next level of care: 147 miles
- Alaska population density is 1.1 person per square mile

Table 1 Barriers to telehealth and potential solutions to promote health equity

Barriers	Potential solutions	Suggested outcome measures
<i>Patient level</i>		
Inexperience with telehealth	Assess readiness to use telehealth	Uptake of telehealth use and ongoing use at patient level
Low digital literacy	Provide training and technical support	
Access to devices	Ensure access to devices	Access to telehealth
Access to broadband	Ensure access to broadband	Patient satisfaction with visits
Limited English Proficiency	Availability of interpreters for telehealth encounters	
	Engagement of informal caregivers	
<i>Health system level</i>		
Lack of trained personnel	Training clinical staff	Staff engagement in telehealth
Lack of optimized workflow	Creating workflows optimized for telehealth use, including multidisciplinary team-based care	Telehealth visits volumes and time and quality measures for care
	Training and technical support for patients	
<i>Telehealth tools</i>		
The complexity of telehealth tools	Simple design and interface informed by patient and provider feedback	Patient and provider reported measures of usability
Poorly designed for accessibility	Tools designed for team-based care	
	Easy to use applications designed for smartphone use	
<i>Policy level</i>		
Reimbursement model prioritizing in-person visits	Parity for telehealth visits including audio visits	Reimbursement for visits
Lower reimbursement of audio only visits	Reimbursement for patient telehealth education initiatives	Monitoring of telehealth use at payor level with a health equity lens
No accessibility standards required for telehealth tools	Mandating accessibility in telehealth tools	

[Disparities in telehealth use: How should the supportive care community respond? - PubMed \(nih.gov\)](#)

ANTHC Telehealth Teams

Telehealth Program Development

- Training in process and equipment, project facilitation, serve as telehealth subject matter experts for partnering orgs and ANMC clinics
- Work with clinics & sites who want to improve and/or expand telehealth services

Product Development

- Software development
- Integrations with the EHR

Specialty Telehealth Program

- Communication support for clinic-to-clinic video visits
- Patient testing and support for direct-to-home video visits
- Help ensure store and forward cases enter the revenue cycle
- VTC Support Line for providers and staff

Statewide Systems Support

- Tier 2 support for our Tribal Health Partners
- Offer telehealth hardware solutions and recommendations

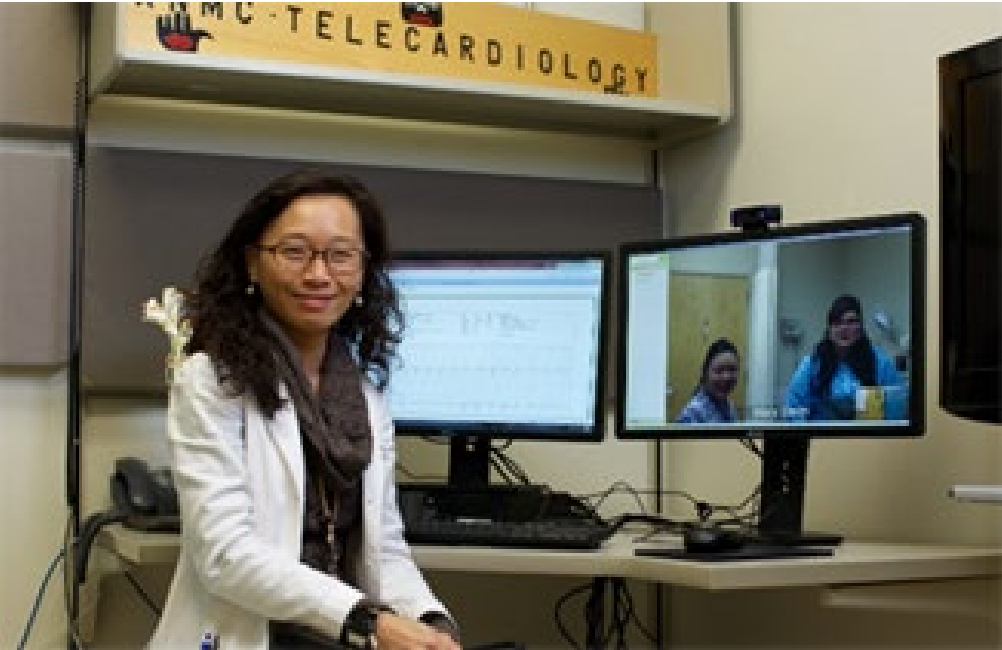


Telemedicine Carts



Outpatient Video: Virtual Patient Room

- Located in Cerner patient chart
- Uses standard AK Tribal Health System video platform (Zoom)
- Does not require a Zoom account to use
- eConsent now available for easier provider documentation



Start Virtual Visit

Zoom Room Status

Meeting ID: 916 5357 3500 [Share](#)

Not started	0
Duration	Participants
	0
	Waiting

Click on item or hover for more details

Patient Forms

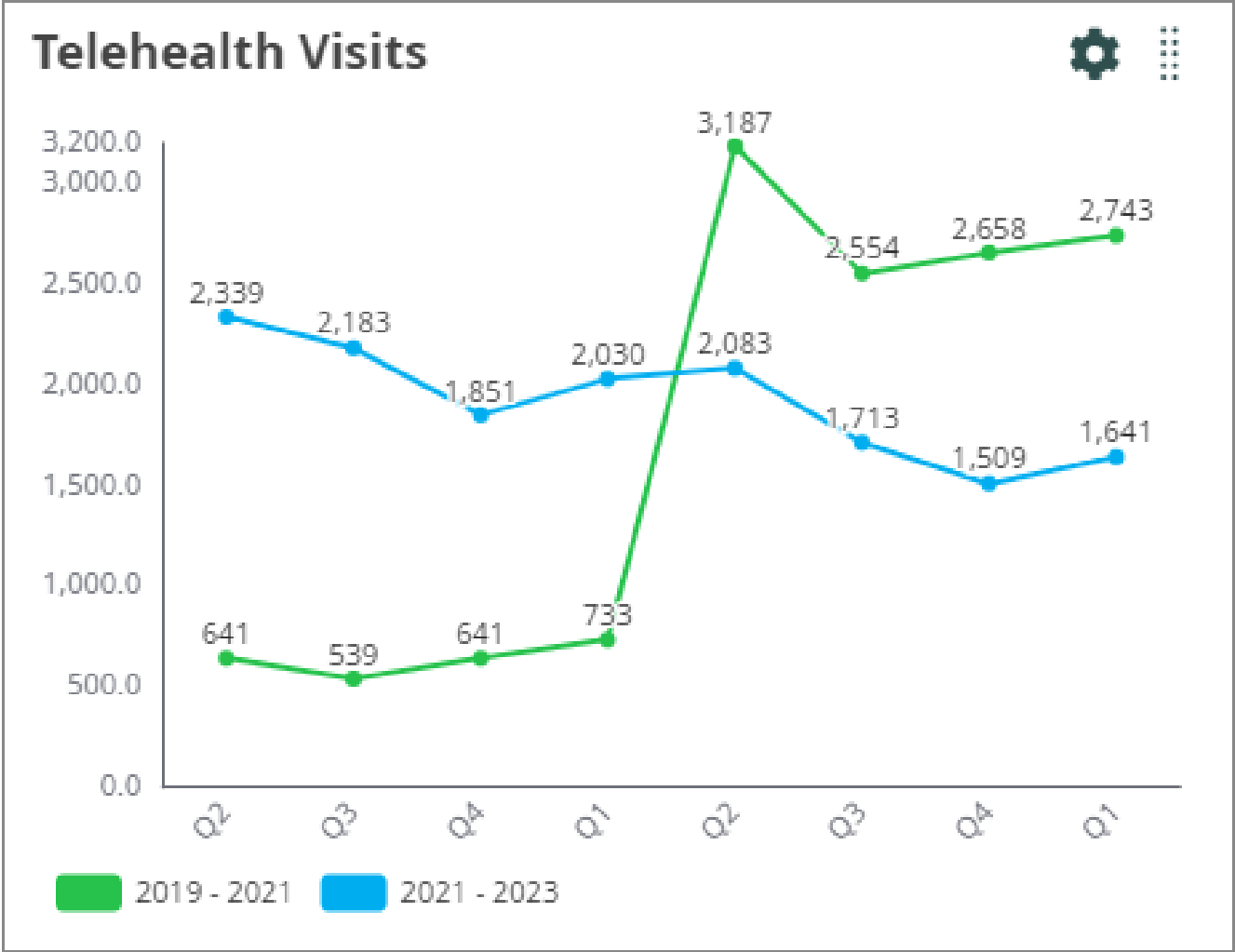
Form	Status
Telemedicine Consent	Incomplete

Click on item or hover for more details



ANMC Synchronous Telehealth Comparison

2019-2023



Q1 2020: 733

Q2 2020: 3,187



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Outpatient Video: Clinic to Clinic & Direct to Patient



Outpatient Video: Virtual Patient Room

The image displays a three-panel interface for a virtual patient room. The left panel is a registration form with fields for 'Last Name', 'MM', 'DD', and 'YYYY', and buttons for 'Join Call' and 'Download Zoom'. The middle panel asks 'Are you the patient or individual allowed to give consent on behalf of the patient?' with 'Yes' and 'No' buttons circled in red. The right panel shows a 'Permission for Telemedicine/Telecommunication Visits' form with a 'Submit' button circled in red. A red arrow points from the 'Submit' button to a waiting screen on the far right that says 'We will be with you shortly. If staff have not joined within 10-15 minutes of the expected time, please call.' The background of the interface is a blue and white mountain range.

VIRTUAL PATIENT ROOM Powered by AFHCAN Telehealth Solutions

Enter your last name:*
Last Name

Enter your birthday:*
MM DD YYYY

Join Call

Download Zoom

Thank you for using the Alaska Tribal Health System.
release/v2.0-0.0.0.1

VIRTUAL PATIENT ROOM Powered by AFHCAN Telehealth Solutions

Are you the patient or individual allowed to give consent on behalf of the patient?

Yes **No**

Thank you for using the Alaska Tribal Health System.
release/v2.0-0.0.0.1

Permission for Telemedicine/Telecommunication Visits

This consent form covers visits with providers in the Alaska Tribal Health System.*

What is telemedicine/telecommunication?

- Telemedicine is a way to visit with healthcare providers. You can talk to your provider from any place, including your home. Telemedicine care is often delivered by video. Your provider may also send information including images to another provider for recommendations. Sometimes you may be able to send information and images to your provider. In all cases, this will be done using telecommunications technology.
- Providers may also speak to you over the telephone.

Are there any risks with telemedicine/telecommunication?

- You and your provider will not be in the same room, so it may feel different from an office visit.
- Your provider may not be able to examine you as closely as during an office visit and may not be able to get all of the information they need. Your provider may still want you to come in for an office visit.
- Technical problems may interrupt or stop your visit before you are done. In those cases, the provider or clinic will attempt to reach you by phone. If you do not hear from them, please call the clinic.

Will my telemedicine/telecommunication visit be private?

- We will not record visits with your provider.
- Please choose a location for yourself that you feel is private and safe.
- If you need or want others with you, please let your provider know who is in the room.
- Your provider will tell you if someone else is in his or her office and can hear or see you, and you have the right to refuse that.
- Our technology and provider practices are secure and designed to protect your privacy.

What if I try telemedicine/telecommunication and I do not like it?

- You can stop at any time, even during a visit. In-person visits are always an option.

What if I want to see my provider in-person?

- Call your clinic to request an appointment for an in-person visit.

What if I have questions that I would like answered before I sign this consent form?

Cancel **Submit**

VIRTUAL PATIENT ROOM Powered by AFHCAN Telehealth Solutions

We will be with you shortly.
If staff have not joined within 10-15 minutes of the expected time, please call.

Thank you for using the Alaska Tribal Health System.
release/v2.0-0.0.0.1

Outpatient Video: ANMC VTC Dashboard

- Located within Cerner
- Automated reminder system
- Integrated with EHR appointment schedule
- Displays consent status
- Text or email patient directly

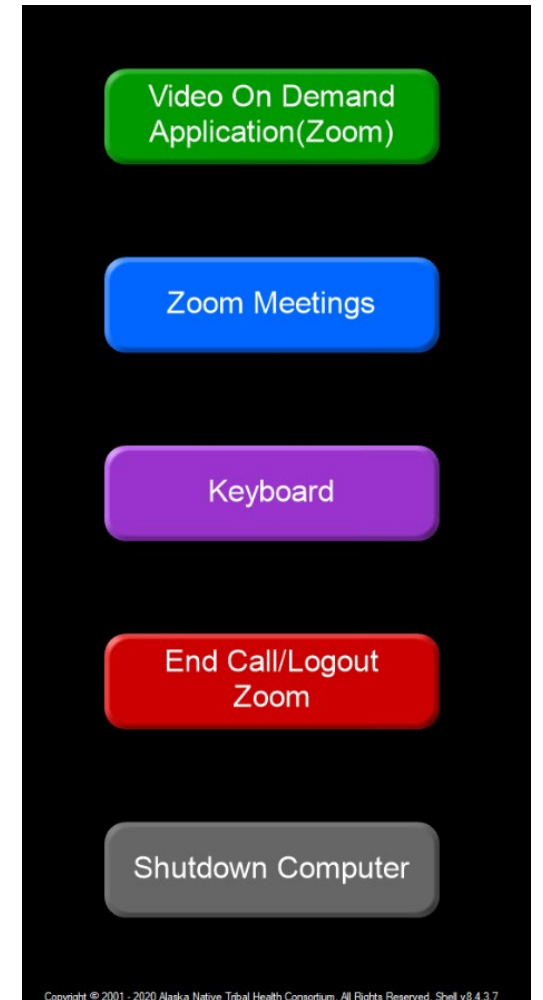
The screenshot displays the 'UAT - VTC Dashboard' interface. At the top, there is a search bar with the text 'What are you looking for?' and a 'Filter' button. Below the search bar, a date range selector shows '07/12/2022 - 07/27/2022'. The main content area is a table with columns for Demographics, Meeting Time, Notification Status, Provider, Appointment Type, Location, and Contact. The Notification Status column is further divided into Confirmation, 24hr Reminder, and 30min Reminder. The table contains one row of data for patient ZZDONOTUSE, SRHCIP, with a meeting time of 07/12/2022 01:30 PM. The provider is Bhandal, Manpreet Singh, MD, and the appointment type is ANMC VTC Provider Direct to Patient. The location is Nephrology. Below the table, there is an 'Additional Information' section with details such as 'Starts At: 1:30 PM', 'Ends At: 1:45 PM', 'VPR Code: AHVUBO', and 'ANMC Consent: Incomplete'.

Demographics	Meeting Time ↑	Notification Status			Provider	Appointment Type	Location	Contact
		Confirmation	24hr Reminder	30min Reminder				
ZZDONOTUSE, SRHCIP DOB: 01/03/1957 MRN: 1000011	07/12/2022 01:30 PM	✓	🔔	✓	Bhandal, Manpreet Singh, MD	ANMC VTC Provider Direct to Patient	Nephrology	Message

Additional Information :
Starts At: 1:30 PM VPR Code: AHVUBO ANMC Consent: Incomplete
Ends At: 1:45 PM Facility: Specialty ANMC

Inpatient: Video On Demand Application (VODA)

- On carts in all ANMC inpatient units
- No one needs a video account or log in
- From bedside: can send a link via text or email to invite participants
- The use of video in the inpatient setting helps to:
 - Rapidly get connected with behavioral health or others
 - Reduce exposure for infection control
 - Improve transitions of care
 - Improve patient satisfaction



VODA: Bering Straits School District & Norton Sound Health Corporation

- Emergent clinical visits to on-call Behavioral Health Provider
 1. Phone call to initiate process
 2. BH Provider starts VODA session and provides 6 digit code
 3. Bering Straits School joins VODA call using 6 digit code
 4. Complete Behavioral Health visit
- Educational purposes for classrooms and school staff
- General school purpose (other needs)



Promoting Health Equity

Patients

- Assess readiness to use telehealth
- Offer training and technical support
- Build easy-to-use tools
- Offer “clinic-to-clinic” option
- Use interpreters as needed to fill gaps in communication
- Ensure privacy and confidentiality

Health System

- Assess provider readiness to use telehealth
- Training available for clinical staff and providers
- VTC Support Line for technical support
- Standardized workflows optimized for telehealth use

Telehealth Tools

- Simple design and interface
- Accessible to those with disabilities
- Able to use between partner organizations
- Continually being developed and optimized
- Patient and provider satisfaction

Policy

- Patient autonomy and choice
- Telehealth tools accessible statewide

Visit us Online!

ANTHC Telehealth

<https://www.anthc.org/telehealth/>

ANTHC Behavioral Health Wellness Clinic

<https://www.anthc.org/departments/behavioral-health-wellness-clinic/welcome/#>

Quyana!

Thank you!

Garret Spargo, Director of Enterprise Architecture

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