

The Intersection of Telehealth & Health Equity: Risks and Opportunities

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Disclosures

I have no financial disclosures or conflicts of interest.

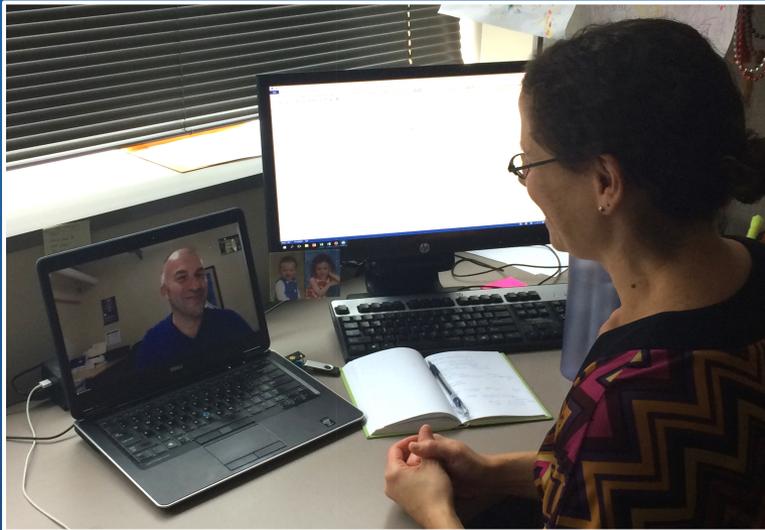
Telehealth

Synchronous

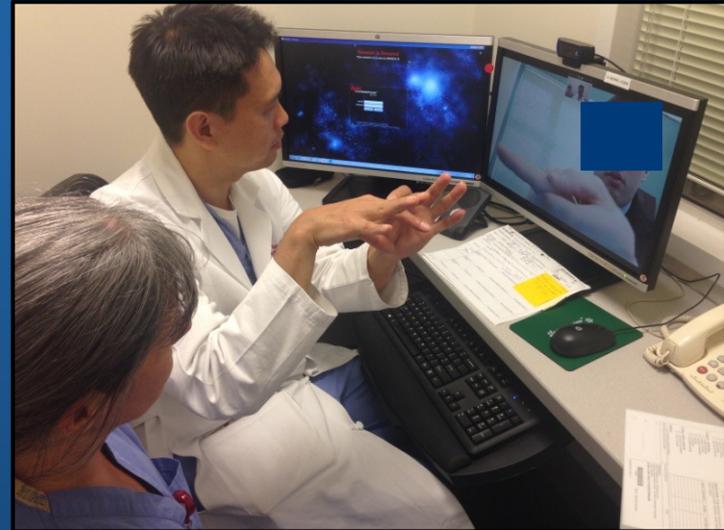
- **Video visits (telemedicine)**
- **Audio-only phone visits**
- **Remote monitoring**

Asynchronous

- **Electronic medical record communication**
- **eConsults**

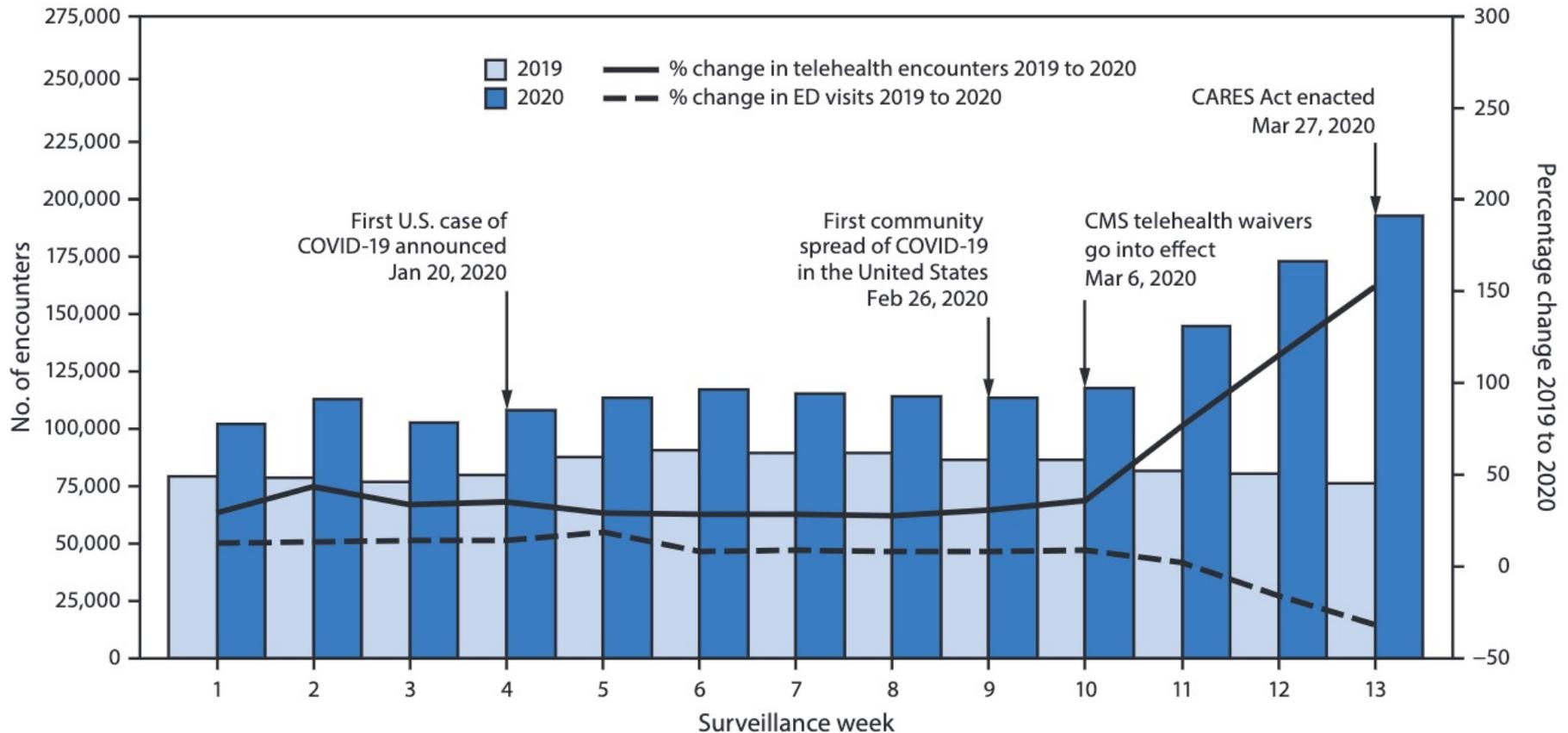


TelePrEP



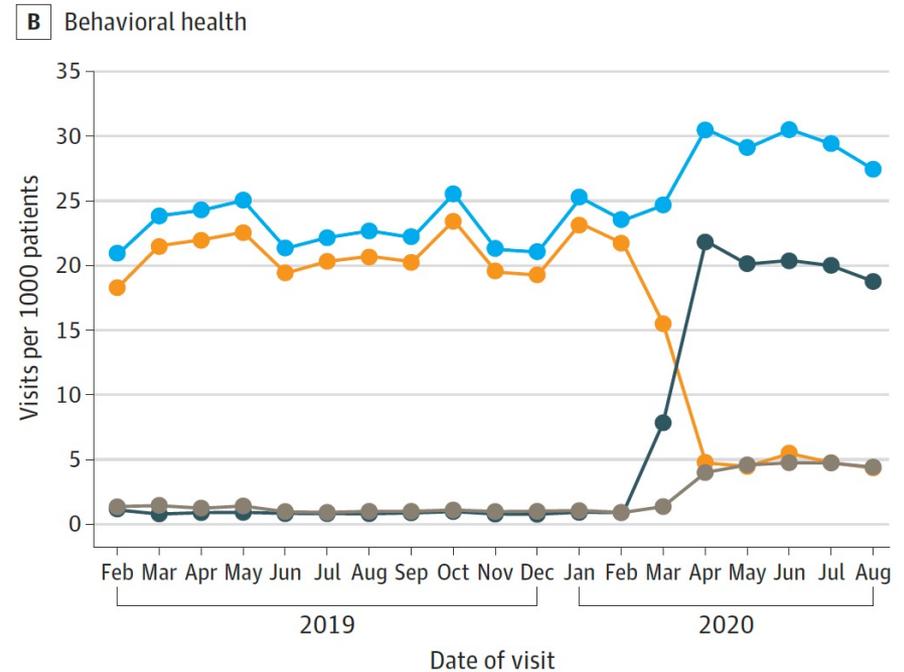
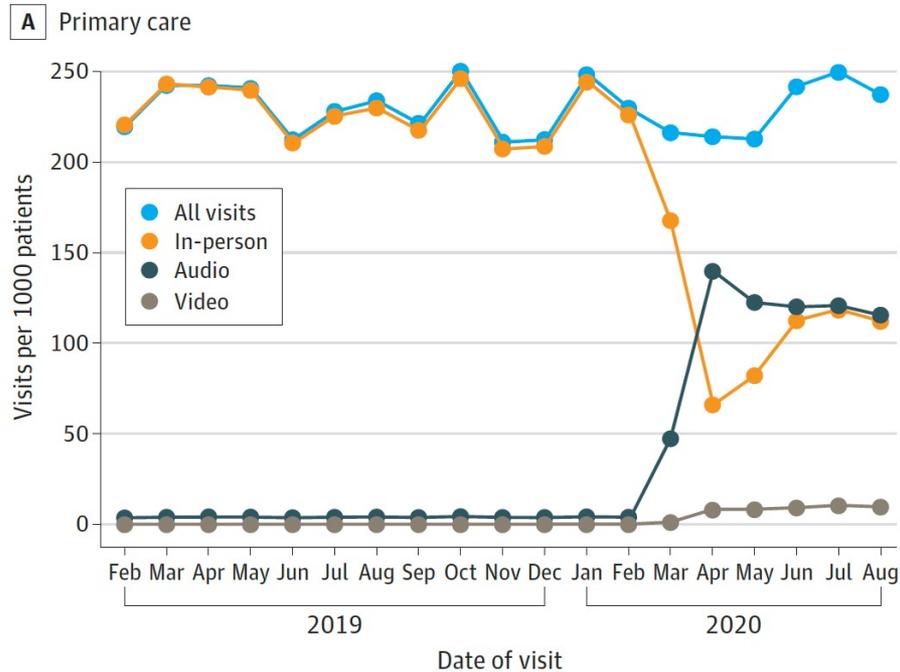
TeleBurns

Recent Explosion in Telehealth National Data from CDC



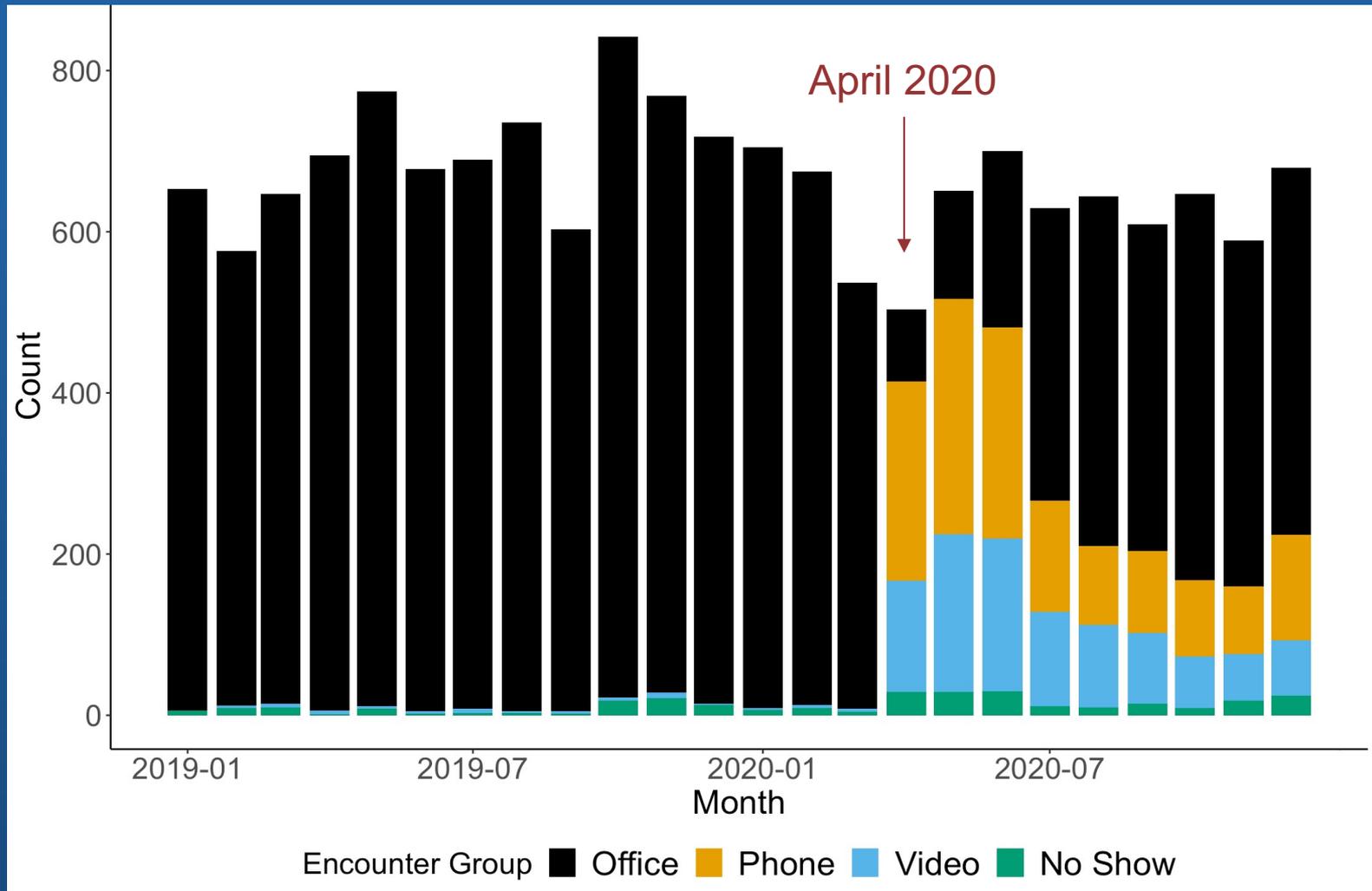
Recent Explosion in Telehealth Data from California Federally Qualified Health Centers

Figure. Primary Care and Behavioral Health Visits per 1000 Patients by Visit Type From February 2019 Through August 2020



Recent Explosion in Telehealth

Data from Seattle's Ryan White HIV Clinic



Benefits of Telemedicine (Video Visits)

Many Advantages and Should Remain an Option

- Reduced risk of exposure to infectious illness
 - Avoid public transportation, waiting rooms, etc.
- Reduced access barriers
 - Transportation challenges
 - Missed work, child or other family care needs
 - Stigma of HIV or PrEP clinic
- Added insights
 - See the home environment
- Overall high patient satisfaction, lower cost to patients*

*Vosburg RW et al. *Telemed J E Health* . 2021 May 17.

Andrews E. *Int J Nurs Stud Adv* . 2020 Nov;2:100008.

Nanda M, Sharma R. *Telemed J E Health*. 2021 March 12.

COVID-19 Healthcare Coalition Telehealth Impact Survey. <https://c19hcc.org/telehealth/>



Disparities in Telehealth Access

The “Digital Divide”

- **Digital Divide:** “the gap that exists between individuals who have access to modern information and communication technology and those who lack access”

Network Modeling Analysis in Health Informatics and Bioinformatics (2021) 10:26
<https://doi.org/10.1007/s13721-021-00300-y>

SHORT COMMUNICATION

Telehealth and the digital divide as a social determinant of health during the COVID-19 pandemic

Camille A. Clare¹ 

Received: 23 October 2020 / Revised: 5 March 2021 / Accepted: 22 March 2021

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Telemedicine (Video Visit) Needs Social Determinants of Digital Health

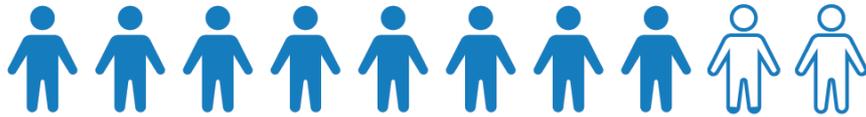
- Device with sufficient data
- Reliable broadband
- Technical literacy
- Language proficiency
- Privacy
- Social support



Wood BR et al. CID 2020.
Image from cnn.com (Aug 2020).

Sources of the Digital Divide

Smartphones & Broadband Subscriptions in the U.S. Rates vary by social determinant of health

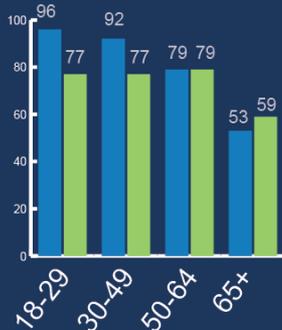


8.1/10 U.S. adults own a phone

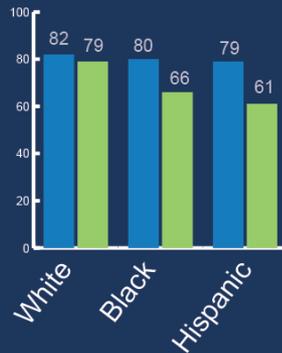


7.3/10 U.S. adults subscribe to broadband

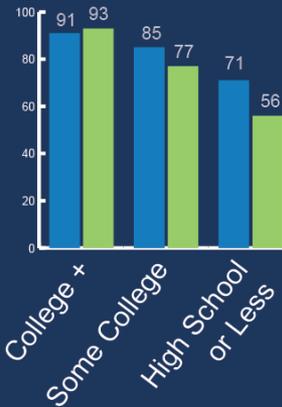
AGE



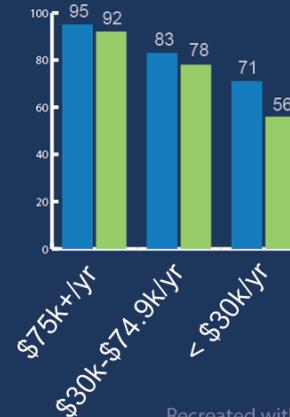
RACE



EDUCATION



INCOME

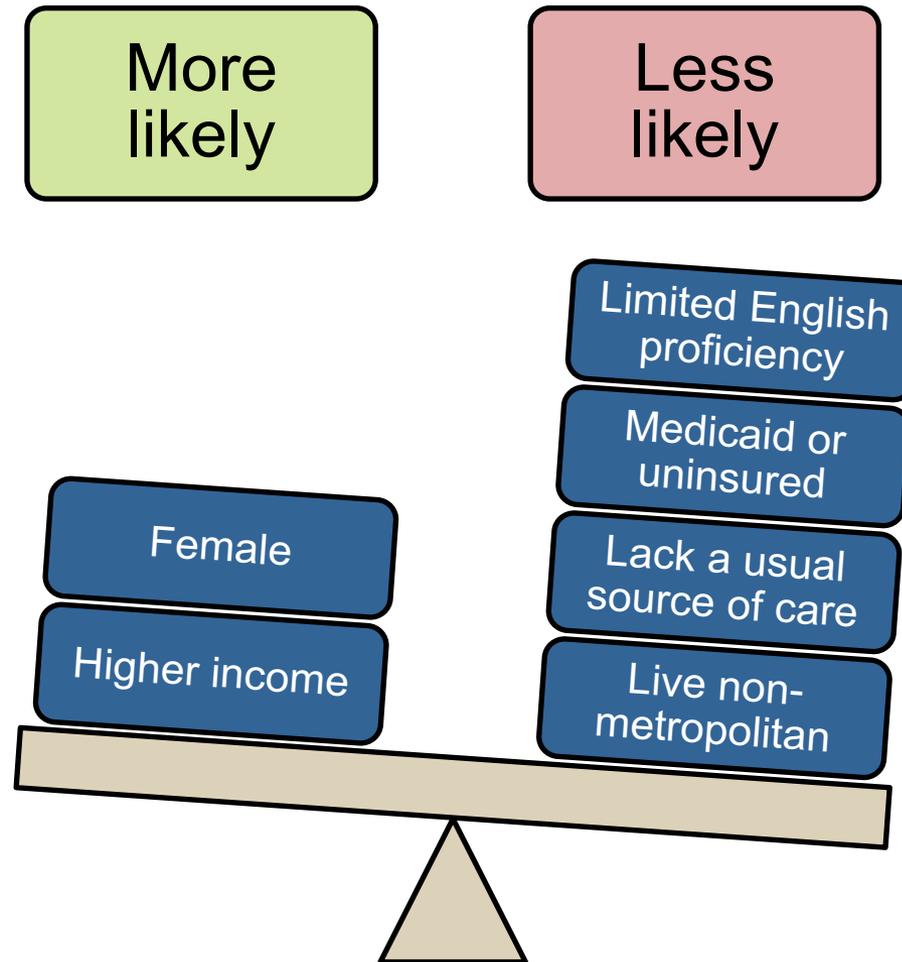


RESIDENCE



Recreated with permission from the Pew Research Center
Anderson, Monica. (2019, June 13). Mobile Technology and Home Broadband 2019.
Retrieved from <https://www.pewresearch.org/internet/2019/06/13/mobile-technology-and-home-broadband-2019/>

Pre-Pandemic Telehealth Use & Readiness Uneven Predictors of Use From Survey of 85k CA Residents



Early Pandemic Telehealth Uptake Uneven

Real World Clinical Data

- UPenn primary care & subspecialty outpatient visits¹
 - Less telehealth: older, Asian, limited English proficiency (LEP)
 - Less video: older, female, Black, Latinx, lower income
- UPenn Cardiology & GI clinics^{2,3}
 - Phone not video: Black, female, older, lower income, LEP
 - Less likely to use online portals: Black, older
- Seattle Ryan White HIV clinic⁴
 - Associated with video visit: age, race, insurance, eCare login

1. Eberly LA et al. JAMA Netw Open 2020.

2. Eberly LA et al. Circulation 2020.

3. Serper M et al. Gastroenterology 2020.

4. Wood BR et al. Unpublished.

Expanding Telemedicine Risks Worsening the Digital Divide

Additional Telemedicine Risks

- Exacerbating implicit biases
- Less personal care/less rapport or trust
- Reduced quality of clinical care
 - Limited physical exam
 - Challenge coordinating labs
- Added administrative burden

Risk but also Opportunity: Promote Awareness, Quantification & Interventions to Reduce Disparities

Clinical Infectious Diseases

IDSA FEATURES



Advancing Digital Health Equity: A Policy Paper of the Infectious Diseases Society of America and the HIV Medicine Association

Brian R. Wood,¹ Jeremy D. Young,² Rima C. Abdel-Massih,^{3,4} Lewis McCurdy,⁵ Todd J. Vento,⁶ Shireesha Dhanireddy,¹ Kay J. Moyer,^{7,8} Javeed Siddiqui,⁸ and John D. Scott¹

Viewpoint | COVID-19: Beyond Tomorrow

ONLINE FIRST FREE

March 26, 2021

Bridging the Digital Divide to Avoid Leaving the Most Vulnerable Behind

Nicholas W. Eyrich, MS¹; Juan J. Andino, MD, MBA¹; David P. Fessell, M

[» Author Affiliations](#) | [Article Information](#)

JAMA Surg. Published online March 26, 2021. doi:10.1001/jamasurg.20

HEALTH AFFAIRS BLOG

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Ensuring The Growth Of Telehealth During COVID-19 Does Not Exacerbate Disparities In Care

[David Velasquez](#), [Ateev Mehrotra](#)

MAY 8, 2020

Wood BR et al. CID 2020.

Eyrich NW et al. JAMA Surg 2021.

Velasquez D, Mehrotra A. Health Affairs 2020.

10.1377/hblog20200505.591306

Opportunities to Advance Digital Health Equity Advocacy & Policy

- Commit (at all levels) to expand access to devices & broadband, develop telehealth infrastructure, promote technical literacy, create new reimbursement models
- Extend emergency waivers permanently (payment equity for video visits, reimbursement for phone visits) & allow treatment across state lines
- Partner with industry and help tech giants understand their role & reasons to invest in this issue
- Bring key stakeholders together (providers, patients, CBO's, tech, public & private healthcare leaders)

Opportunities to Advance Digital Health Equity Research

- Better understand patient preferences and needs
 - Not all patients want telemedicine, but those who do should have equitable access to it and opportunity for it
 - Surveys, focus groups, community input
- Quantify telemedicine usage and barriers
- Study implementation barriers and solutions
- Understand implicit biases so that we can address them

Opportunities to Advance Digital Health Equity Clinical & QI Interventions

- Standardize telemedicine checklists; test visits ahead of time
- Give devices with data plans and/or hotspots & headphones
- Telemedicine stations at accessible locations
- Telehealth training kiosks; telehealth interpreters/navigators
- Interpreters (including sign language) & other accommodations*
- Instructions in multiple languages, via simple platforms (SMS)
- Start tele-visits with a check-in about privacy
- Include telehealth usage/gaps as key performance indicators

*Design considerations for persons with disabilities: 1) Valdez RS et al. JAMIA 2021.
2) Consortium for Citizens with Disabilities. <http://www.nacdd.org>



Sample telemedicine checklist

Checklist for Telemedicine Visit

Denote patient details and location for visit

Name: _____ MRN: _____

Patient plans to join encounter from: _____
(specify location)

Determine language needs

English | Spanish | Other: _____ Interpreter needed
(circle one) (specify language if Other)

Identify hardware and software needs

Telemedicine Software: _____ EHR | External Portal
(select how patient will connect)

Connectivity: Internet | Broadband _____ Headphones needed
(circle one)

Device: Desktop | Laptop | Tablet | Smartphone
(circle one)

Test hardware and software Test call completed

Conduct test call and then fill out the video and audio assessments below

Video Quality: Acceptable | Poor _____ Issues: _____
(circle one) (describe any issues you experienced)

Audio Quality: Acceptable | Poor _____ Issues: _____
(circle one) (describe any issues you experienced)

Denote any additional assistance needs

(e.g. family member, telemedicine navigator, other)

Completed By: _____ Date/Time: _____ / _____
(print name) (mm/dd/yyyy) (hh:mm)

Conclusions

Telehealth is Public Health

- As a community, we need to consider telehealth access as a social determinant of health and commit to promoting *digital inclusion* to mitigate worsening disparities
- It is important to acknowledge and better understand the risks of telehealth, so that together we can turn this era into an opportunity to improve healthcare access
- Closing the digital divide will take collaborative effort between numerous key stakeholders along with policy changes, research, advocacy, and community engagement

Resources

- CCI Telemedicine for Health Equity Toolkit:
<https://www.careinnovations.org/resources/telemedicine-for-health-equity-toolkit/>
- UCSF S.O.L.V.E. Health Tech:
<https://solvehealthtech.ucsf.edu/>
- UW Telehealth Toolkit:
<https://thetelehealthtoolkit.com/>