UNDERSTANDING THE DIGITAL DIVIDE AND DIGITAL NAVIGATION

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LEARNING GOALS

- Be able to describe factors that contribute to the Digital Divide

- Be able to describe those most impacted by the Digital Divide

- Be able to describe the impact of the Digital Divide in WA State

- Be able to describe Digital Navigation

- Be able to describe how Digital Navigation close the Digital Divide

THE DIGITAL DIVIDE

So, how do you define the Digital Divide?

COMMON DEFINITION OF THE DIGITAL DIVIDE

- Basically, it is a growing disparity between those who have access to digital modalities to include digital health and those who do not have this ability:
  - In the US, the Federal Communications Commission estimates that more than 21 million people lack an internet.
  - More than 40% of schools lack a broadband connection.
  - More that 60% of health care facilities outside metropolitan areas lack a broadband connection.
  - Pew Charitable Trust Magazine July 2019

SOME DEFINITIONS TO BETTER UNDERSTAND THE DIGITAL DIVIDE
NATIONAL DIGITAL INCLUSION ALLIANCE ([WWW.DIGITALINCLUSION.ORG](http://www.digitalinclusion.org))

Digital Divide

- The digital divide is the gap between those who have affordable access, skills, and support to effectively engage online and those who do not. As technology constantly evolves, the digital divide prevents equal participation and opportunity in all parts of life, disproportionately affecting people of color, Indigenous peoples, households with low incomes, people with disabilities, people in rural areas, and older adults.

Digital Equity

- A condition in which all individual and communities have information technology capacity needed for full participation in society, democracy, and economy.
- Necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.

SOME DEFINITIONS TO BETTER UNDERSTAND THE DIGITAL DIVIDE

NATIONAL DIGITAL INCLUSION ALLIANCE (WWW.DIGITALINCLUSION.ORG)

Digital Inclusion

- Digital Inclusion refers to the activities necessary to ensure that all individuals and communities, including the most disadvantaged, have access to and use of Information and Communication Technologies (ICTs).

- This includes 5 elements:
  1) affordable, robust broadband internet service

  2) internet-enabled devices that meet the needs of the user

  3) access to digital literacy training

  4) quality technical support

  5) applications and online content designed to enable and encourage self-sufficiency, participation and collaboration. Digital Inclusion must evolve as technology advances. Digital Inclusion requires intentional strategies and investments to reduce and eliminate historical, institutional and structural barriers to access and use technology.

SOME DEFINITIONS TO BETTER UNDERSTAND THE DIGITAL DIVIDE
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Digital Literacy and skills

– Possesses the variety of skills – technical and cognitive – required to find, understand, evaluate, create, and communicate digital information.

– Is able to use diverse technologies appropriately and effectively to retrieve information, interpret results, and judge the quality of that information.

– Understands the relationship between technology, life-long learning, personal privacy, and stewardship of information.

– Uses these skills and the appropriate technology to communicate and collaborate with peers, colleagues, family, and on occasion, the general public.

– Uses these skills to participate in civic society and contribute to a vibrant, informed, and engaged community.

THE DIGITAL DIVIDE, KIND OF LIKE
PEELING AN ONION…

So , what do you think are the

<u>common causes </u>of the Digital Divide?

REPORTED CAUSES OF THE DIGITAL DIVIDE ("ROUND UP THE USUAL SUSPECTS")

- Education level directly correlated with use of Digital Technologies
  - Perhaps one of the main predictors
  - Income, occupation, wealth, age, and gender

    (*The Gerontologist*, Volume 59, Issue 1, February 2019, Pages e1–e15, https://doi.org/10.1093/geront/gny037)

- Socioeconomic disparities (Those below $30,000/yr.):
  - Don't own a smart phone (24%).
  - Don't have broadband (43%).
  - Don't own a desktop or laptop computer (41%).
  - For those earning over $100,000/yr. likely to have all these technologies.

    (Pew Research Center June 2021 Vogels)

REPORTED CAUSES OF THE DIGITAL DIVIDE ("ROUND UP THE USUAL SUSPECTS")

• Rural vs. Urban:

  – Lack of infrastructure in both rural as well as distressed urban areas.

  – One study reported that urban respondents were 51% more likely to have internet access than rural respondents

    (*Information, Communication & Society*, 17(4), 503–519. doi:10.1080/1369118X.2014.891633)

  – Rural Americans have made large gains in adopting digital technology over the past decade and have narrowed some digital gaps. However, rural adults remain less likely than suburban adults to have home broadband and less likely than urban adults to own a smartphone, tablet computer or traditional computer.

    (Pew Research Center August 2021, Vogels.)

REPORTED CAUSES OF THE DIGITAL DIVIDE ("ROUND UP THE USUAL SUSPECTS")

- Racial differences:
  - African American, Hispanic, NA ethnicities consistently come up as lacking access to internet.
  - Less likely to use technology for health-related purposes.
  - Less likely to make or receive phone calls, search internet for health information.
  - US Census reported that Black and Hispanic less likely than White and Asian Households to have interact access and computer at home.
  - BIPOC individuals less access to technology and poorer skills for effective use, even after controlling for socioeconomic status.
  - Older immigrants: socioeconomic, language prof., degree of acculturation, educational level

    (Mitchel et al. Gerontologist, 2019, Vol. 59, No. 1, 6–14 doi:10.1093/geront/gny138)

    (https://www.census.gov/content/dam/Census/library/publications/2021/acs/acs-49.pdf)

    (Telemedicine and e-Health, 14(5), 486–492. https://doi.org/10.1089/tmj.2007.0070)

    (Technology and Society. HCII 2020. Lecture Notes in Computer Science(), vol 12209. Springer, Cham. https://doi.org/10.1007/978-3-030-50232-4_13)

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REPORTED CAUSES OF THE DIGITAL DIVIDE ("ROUND UP THE USUAL SUSPECTS")

- Elderly:

  - Identified as a high-risk group. One study showed that elderly with more chronic conditions had higher rates of digital exclusion.

    (J Med Internet Res. 2016;18(11):e309)

  - Was suggested that widows and elderly living alone were less likely to use Digital Modalities

    (*The Gerontologist*, Volume 59, Issue 1, February 2019, Pages e1–e15, https://doi.org/10.1093/geront/gny037)

  - Relationship between age and internet use does not appear to be linear but rather exponential with every 5 yrs. younger cohort, such that for those 80 yrs old only 9.4% used the internet while those at age 75 (19.7%), and 70 (40%).

    (Health Promotion International, 31(2), 335–343. doi:10.1093/heapro/dau106)

REPORTED CAUSES OF THE DIGITAL DIVIDE ("ROUND UP THE USUAL SUSPECTS")

- Disability status:

  – Multiple studies suggested that those with low vision, hearing, hand-related disability (arthritis) cognitive issues, or learning disabilities had lower use of Digital Modalities

    (*The Gerontologist*, Volume 59, Issue 1, February 2019, Pages e1–e15, https://doi.org/10.1093/geront/gny037)

- Disability status:

  – Less likely to have access and use the internet.

  – However, those with Hearing Loss were more likely to use the internet.

  – Once on the internet, those with disabilities used the internet equally.

    (Johansson et al., Universal Access in the Information Society (2021) 20:105–120 https://doi.org/10.1007/s10209-020-00714-x)

PERCEIVED BARRIERS BY WA STATE MH PROVIDERS

- Harborview Behavioral Health Institute (BHI) completed a TeleBehavioral Health survey in late 2022.

- Survey was completed by 713 providers.

- Overall results revealed positive experiences related to adapting to providing TeleBehavioral Health.

- However, they did express concerns related to concerns for their patients.

- Did not express as much concern about how their clinic could be contributing to the Digital Divide.

MEDICAL SYSTEM CONTRIBUTIONS TO THE DIGITAL DIVIDE

- Medical Center Tech capabilities
  – Access to broadband
  – Access to equipment (Desktops, laptops, smartphones, tablets, etc.)
  – Access to HIPPA compliant software

- Provider Tech Literacy
  – Attitude
  – Awareness of literature
  – Ability to complete Safety Planning
  – Ability to complete Informed Consent
  – Ability to created and maintain a professional environment
  – Technical skills

MEDICAL SYSTEM CONTRIBUTIONS TO THE DIGITAL DIVIDE

- Medical Center Clinic Readiness
  - Administration and funding support
  - IT support
  - Space
  - Culturally appropriate for clinic
  - Ability to address needed accommodations (e.g., hearing aids)
  - Ability to address workflow details

- Medical Center Outreach
  - Ability to advertise services
  - Ability to screen patients
  - Ability to train patients and appreciate their unique needs
  - Ability to collaborate with community resources

MOVEMENT TOWARDS IMPROVED DIGITAL EQUITY

H.R.3684 - INFRASTRUCTURE INVESTMENT AND JOBS ACT
DIGITAL EQUITY PLAN (DOC.GOV)

- U.S. Department of Commerce National Telecommunications and Information Administration has put forth guidance on creating a Digital Equity Program.

- The Digital Equity Act along with the Infrastructure Investment and Jobs act has allocated **65 billion dollars** to ensure that all Americans have access to affordable, high speed internet service.

- A State that receives funding from the State Digital Equity Planning Grant Program must submit to the Assistant Secretary a Digital Equity Plan that establishes the State's vision for digital equity in the context of its overarching strategy and goals.

- The Digital Equity Act assumes that affordable robust broadband service, Internet-enabled devices that meet user needs, applications and online content, access to digital literacy training, quality technical support, and measures to ensure privacy and cybersecurity are identified as six steppingstones toward digital equity.

- At minimum, a State's Digital Equity Plan must include 15 requirements, which are detailed in the State Digital Equity Planning Grant Program NOFO, Section IV.C.1.b.

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EMERGING WA STATE RESOURCES

DIGITAL INCLUSION RESOURCE COLLECTION - WASHINGTON STATE LIBRARY - WA SECRETARY OF STATE

- **NDIA Free & Low Cost Internet Plans**
- **TechSoup**
  - Offers low-cost refurbished devices for qualifying non-profits.
- **Washington State Drive-In WiFi Hotspots Location Finder**
  - Map of locations offering free community Wi-Fi; primarily parking lot hotspots, but accessible regardless of how users arrive at the locations. Some sites also offer indoor public access during business hours.
- **Alliance for Technology Refurbishing and Reuse (AFTRR)**
  - Collective of nonprofit technology refurbishers; AFTRR is a project of the National Cristina Foundation, a 501c3 established over thirty years ago and charged with the mission to promote technology reuse and encourage the donation of technology to nonprofit and school NCF partners throughout the country.
- **EveryoneOn**
  - Powered by Connect2Compete which aims to eliminate the digital divide by providing high speed, low-cost Internet and computers, and free digital literacy training to all Americans. *Website available in English and Spanish.*
- **PCs for People**
- **TechConnect Washington**
  - Community Help Desk providing free technical support to Washington residents to help them engage in a virtual environment. Help desk Technicians are standing by between the hours of 9am - 5pm to support parents, students, elders, and all community members with problems or questions

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HOW DOES ONE EVEN START TO ASSESS THE DIGITAL DIVIDE?

- Digital Divide Index (DDI)
  - Purdue University
  - [Digital Inclusion | Digital Divide Index (purdue.edu)](purdue.edu)

  - Assess for Infrastructure/Adoption (INFA) and Socioeconomic (SE) Scores

  - Score on a 1-100 with 100 indicating the highest Digital Divide

  - These two scores are combined to calculate the overall DDI score.

  - If a particular county or census tract has a higher INFA score versus a SE score, efforts should be made to improve broadband infrastructure.

  - If on the other hand, a particular geography has a higher SE score versus an INFA score, efforts should be made to increase digital literacy and exposure to the technology's benefits.

HOW DOES ONE EVEN START TO ASSESS THE DIGITAL DIVIDE?

- Digital Divide Index (DDI)
  - Digital Inclusion | Digital Divide Index (purdue.edu)
  – INFA

  (1) percentage of total 2019 population without access to fixed broadband of at least 100 Mbps download and 20 Mbps upload as of December 2019

  (2) percent of homes without a computing device (desktops, laptops, smartphones, tablets, etc.)

  (3) percent of homes with no internet access (have no internet subscription, including cellular data plans or dial-up)

  (4) median maximum advertised download speeds

  (5) median maximum advertised upload speeds.

  – SE

  (1) percent population ages 65 and over

  (2) percent population 25 and over with less than high school

  (3) individual poverty rate

  (4) percent of noninstitutionalized civilian population with a disability

  (5) a brand-new digital inequality or internet income ratio measure (IIR). The IIR gauges digital inequality by dividing the share of homes making less than $35,000 without internet access by the share of homes making $75,000 or more without internet access. A higher IIR denotes a higher inequality. In other words, these variables indirectly measure adoption since they are potential predictors of lagging technology adoption or reinforcing existing inequalities that also affect adoption.

DIGITAL NAVIGATION AND DIGITAL NAVIGATORS

- So, what is Digital Navigation and just who are these people who call themselves Digital Navigators?

DIGITAL NAVIGATION AND DIGITAL NAVIGATORS

Digital Navigators

- Digital navigators are trusted guides who assist community members in internet adoption and the use of computing devices. Digital navigation services include ongoing assistance with affordable internet access, device acquisition, technical skills, and application support.

DIGITAL NAVIGATORS

NATIONAL DIGITAL INCLUSION ALLIANCE (WWW.DIGITALINCLUSION.ORG)

- Digital Navigators defined:
  - The Digital Navigator provides individualized or small group assistance to [community members or specify eligible group(s)] who need affordable home internet service, affordable internet-capable devices, and/or coaching in introductory digital skills to become effective home internet users and be able to participate online fully.

  - This assistance may be provided in person or by voice telephone, email, text, video chat, and other communication methods that work for the client

DIGITAL NAVIGATORS: RESPONSIBILITIES AND DUTIES
NATIONAL DIGITAL INCLUSION ALLIANCE (WWW.DIGITALINCLUSION.ORG)

– Initiate interactions with clients seeking assistance or identified for assistance.

– Discuss with each client their home internet access or need for home internet access, technology experiences, and their access to and use of devices.

– Assess clients' access to technology, current digital skill level, connectivity needs, and internet use priorities. Set agreed goals for digital navigator services.

– Advise clients about free or low-cost home internet service options for which they may qualify, assist clients in applying for services they choose, and support their efforts to secure service.

– Provide information to clients about sources of low-cost computers or other internet-connected devices and device repair and maintenance for which they may qualify. Support their efforts to acquire appropriate and maintain devices.

– Coach clients to use their home internet services in order to meet their internet use priorities and goals. This may include in-person, phone, and online interactions, as well as referrals to sources of additional digital skill training.

DIGITAL NAVIGATORS: CRITICAL SKILLS AND APTITUDES
NATIONAL DIGITAL INCLUSION ALLIANCE (WWW.DIGITALINCLUSION.ORG)

– Ability to embrace the challenge of learning and teaching basic technological concepts related to internet services, computer and device characteristics, and common online services and applications

– Excellent self-organization, relevant language capacity, and relevant cultural competency

– Excellent telephone and online communication skills, including the ability to establish trust with clients of varied educational and cultural backgrounds

– Ability to demonstrate excellent interpersonal skills, cultural sensitivity and a sense of humor in working with diverse clients, coworkers, and community

– Ability to creatively solve problems, and negotiate and handle stressful situations in a positive manner

– Ability to provide excellent customer service, establish appropriate boundaries with clients, and demonstrate innovation and flexibility

– Ability to speak [languages spoken in target community] preferred

SUPPORT FOR DIGITAL NAVIGATION: EMERGING...

- Original concept was to create a new team member: Digital Navigator
  - Role was to facilitate the implementation and integration of technology into a clinic.
  - Entry level health care role and well suited to the Peer Specialist
  - Would require special curriculum

  (*Digit Biomark* (2020) 4 (Suppl. 1): 119–135.https://doi.org/10.1159/000510144)

- Digital navigation for Behavioral Health Providers has been shown to be acceptable and increased the user's confidence in use of digital modalities to care for patients with mental disorders

  (Int J Methods Psychiatr Res. 2020; 29(2):e1825. doi: 10.1002/mpr.1825. Gen Hosp Psychiatry. 2020; 66:59–66. doi: 10.1016/j.genhosppsych.2020.06.009. Asian J Psychiatr 2020; 54:102433. doi: 10.1016/j. ajp.2020.102433.)

SUPPORT FOR DIGITAL NAVIGATION

- Digital Navigation Training has been used to mental heath providers to care for psychiatric patients leading to:

  – Improved digital literacy

  – Support outpatient care

  – Facilitate smartphone-based care

  (Acta Psychiatr Scand. 2020; 141(4):350–355. doi: 10.1111/acps.13149. https://www.biaw. com/behavioral-health-providers/. Accessibility verified September 26, 2022. Asian J Psychiatr 2020; 54:102433. doi: 10.1016/j. ajp.2020.102433).

COMMUNITY HEALTH NETWORK OF WASHINGTON (CHNW) DIGITAL INCLUSION INITIATIVE PROJECT: DIGITAL NAVIGATION IMPLEMENTATION

CHNW partnering with Behavioral Health Institute to:

- Expand Link to Care WA- Digital Navigation Hotline and website
- Build Capacity within Community Health Centers to provide Digital Navigation
- Identify and build Community Partnerships to support sustainability and wi-fi Access points
- Develop policy recommendations to sustain Digital Navigation in health care

Using Implementation Science Methodologies:

- Using PARiHS, RE-AIM, Implementation Facilitation
- Will implement comprehensive Digital Navigation programs that are site specific
  - Digital Navigator
  - Digital Literacy training for staff and clients
  - Device access

Link to Care WA – Get Connected, Stay Healthy

SUMMARY

- The Digital Divide is:
  - Complicated
  - Multi-factorial
  - Likely still not totally understood
  - Represents a SIGNIFICANT barrier to care

- The government at the state and federal level are starting to provide support

- Digital Navigators and Navigation is:
  - Practical and doable
  - Likely effective
  - More work needs to be done to better understand this new approach to care

THOUGHTS, QUESTIONS, GOOD JOKES?

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