2022 Global Economic Forum
Closing the Digital Divide - Health Equity and the Growth of Telehealth
Background Briefing Paper

"We must also promote global access to the Internet. We need to bridge the digital divide not just within our country, but among countries. Only by giving people around the world access to this technology can they tap into the potential of the Information Age."
*- Al Gore, former Vice President of the United States*

Defining the Growing Digital Divide

Conversations around the 'digital divide' have, from their conception, been conversations on **access**, **equity**, and **justice**. The **digital divide** describes the uneven distribution of technology resources, often called **information and communication technology (ICT),** which includes computers, the Internet, and mobile phones, among other technologies. The digital divide was initially described as a persistent issue within a single country, where certain populations had more or less access to technology than others. In recent years, the definition of the digital divide has grown to include uneven distribution of technology between countries and global regions. Technology, the Internet, and mass communications have always suffered from a split between those who have, and those without. Interestingly, the digital divide is not a linear progression, as technological advances and globalization have caused both times of significant gaps and times of a relatively narrow divide.

Historically, the first digital divides were between those who had the financial means and technological know-how to have home computers and basic internet access, and those who didn't. Over time, these initial barriers to access shifted with the advent and **ubiquity** of cell phones and satellites in the 1990's. As technology and faster **broadband internet** continued to develop, inequality grew once again, as higher income

Gini coefficients for telecommunication capacity *(in kbps)* **per individual worldwide** (incl. 172 countries)
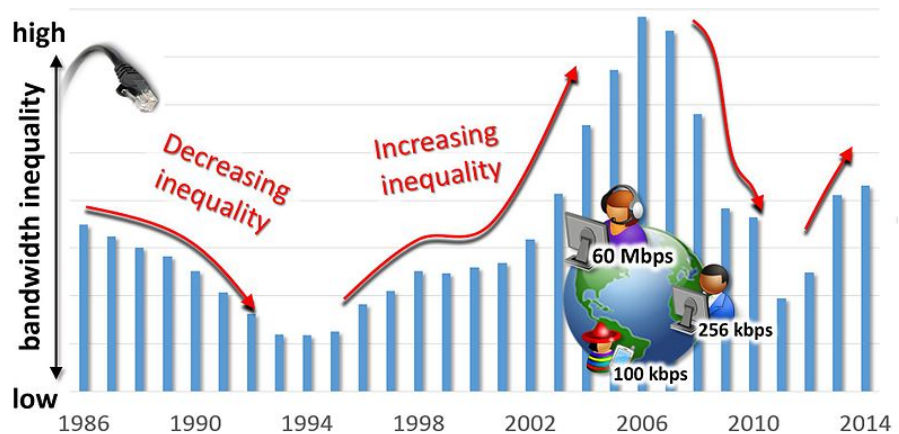
Hilbert, M. (2016). The bad news is that the digital access divide is here to stay: Domestically installed bandwidths among 172 countries for 1986–2014. *Telecommunications Policy.* www.martinhilbert.net/the-bad-news-is-that-the-digital-access-divide-is-here-to-stay/

A Gini Coefficient is a measure of inequality in a population, and is primarily used in wealth or income inequality. Values range from 0 to 1, with a '0' representing perfect equality and a '1' representing absolute inequality.

households gained access to faster and more reliable internet. Looking forward, global conversations on digital equity and access have shifted to conversations around abundant high speed internet, next generation cellular networks like **5G,** and even the accessibility of advanced healthcare procedures.

Regardless of the size of the gap between those with access to technologies and those without, the digital divide has significant consequences for nearly everyone. The Internet has become a necessary component of almost every facet of modern life including how we learn, communicate, shop, and even

Two-thirds worldwide use the internet, but fewer do in Africa and South Asia

Percent of adults who use the internet at least occasionally or report owning a smartphone

Note: Percentages based on total sample.

Source: Spring 2015 Global Attitudes survey. Q70 & Q72.

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participate in the fundamental aspects of a democracy and with government institutions. Each year, as technology continues to improve, even more aspects of life become internet-based, including healthcare systems, banking and financial institutions, and our educational systems. Recognizing the growing importance of internet connectivity, the **United Nations** in 2016, declared in a **non-binding resolution** that access to the Internet as a fundamental human right.

There exist significant digital divides both within countries and between countries and global regions. Many developed countries struggle to provide equitable access to Internet services and are plagued by issues of low **digital literacy**, especially within less educated and older populations. In **developing regions**, one of the major barriers is an underdeveloped **internet and technology infrastructure**. For

many countries, simply building the infrastructure needed to provide internet to millions of citizens is simply too costly. Throughout the world, these equity issues primarily affect certain populations including women, racial and ethnic minorities, people with lower incomes, rural residents, people with disabilities, and people with lower levels of education. While each country and each region face differing and unique challenges when confronting the digital divide, these equity concerns remain at the forefront of any discussion on this important topic.

COVID-19 and the Digital Divide

For decades the digital divide fluctuated based on advancements in technology, internet infrastructure, and the widespread adoption of internet connected devices such as cell phones. During this time, the digital divide remained relatively immune from wider global events. While shifts in politics, global conflict, terrorism, and even the growing threat of climate change had impacts on the digital divide, nothing has had as significant of an impact as the COVID-19 pandemic.

A public health crisis derived from a contagious virus spread through close human contact forced a drastic and overwhelming shift in the lives of billions around the world. No single event has previously triggered such widespread change to how people live, learn, and interact with others. Fundamental to this change is the acceleration of services and institutions from in-person to digital engagement.

In many countries, entire institutions and core societal systems such as education, healthcare, banking, and retail quickly shifted online. Within days and weeks, entire societal systems moved rapidly, with significant consequences around access and equity to core services. Suddenly, high speed internet and a connected device became critical to simply access school, speak with a doctor, pay bills, or receive critical municipal services. Even for the most digitally literate populations, the shift was immediate, drastic, and overwhelming.

Like other aspects of the pandemic, certain countries and certain populations were better equipped to handle this paradigm shift than others. Generally, **developed countries** with strong Internet infrastructure were able to handle the increased digital needs of their citizens. However, access and equity issues still predominated for many of the under-resourced populations mentioned above in these highly developed countries. In developing nations, the digitization of these critical services and institutions was prohibitively expensive or near impossible in such a short amount of time. While the digital divide represented persistent equity issues globally, the COVID-19 pandemic brought them to the forefront in a dramatic and uncompromising fashion.

Medical Care, Telehealth and the Digital Divide

Access to medical care is one of the foundational elements of a healthy, productive life. From pregnancy to childbirth, through adulthood and into eldercare, ensuring that people are healthy is critical to a successful and thriving society. There are many different ways to look at health across the world, with different cultural, religious, and societal norms that affect how we determine health. At a minimum however, a healthy individual has positive **physical**, **mental**, and **social health**. Countries around the world face significant obstacles to healthcare for their citizens, with the compounding effects of climate
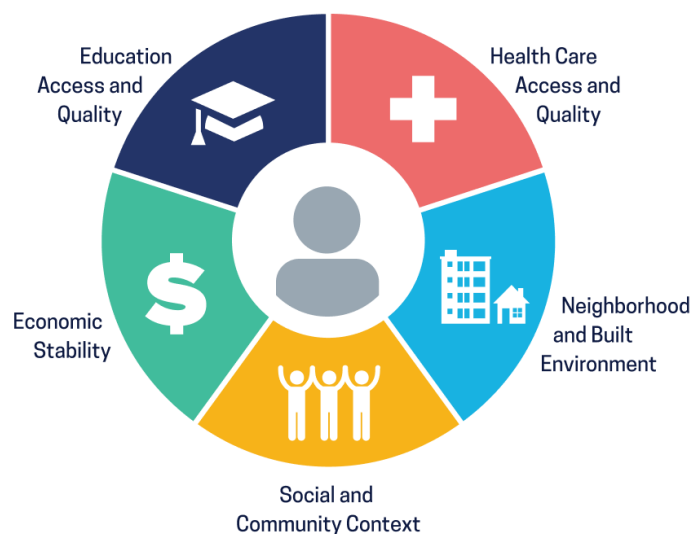
change, environmental degradation, food insecurity, and access to clean water further complicating global health and well-being. Additionally, topics such as accessibility to healthcare and the equitable distribution of **healthcare resources** is highly variable around the world, and depends on cultural values and societal norms.

Health is also greatly affected by a number of individual and societal factors. Health has a genetic component with some individuals more susceptible to chronic illnesses and diseases because of family history. Other societal factors also have a massive impact on health including where one lives, access to education, food, clean water and a healthy community. These factors combine together and are called the **social determinants of health.** These factors, largely driven by poverty or wealth, contribute to the entrenched health disparities between different populations.

Even prior to the COVID-19 pandemic, medical care in most countries and throughout the world was not equally distributed and suffered from significant access and equity issues. In many developing countries, some populations may suffer from lack of access to basic

Social Determinants of Health

Education Access and Quality

Health Care Access and Quality

Economic Stability

Neighborhood and Built Environment

Social and Community Context

Social Determinants of Health
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health resources, including a lack of access to medical professionals, life-saving pharmaceutical drugs, and important medical technologies. For millions around the world, access to critical services, life-saving vaccines, medications and medical care remains a critical policy issue preventing many from a healthy life. Solving these basic accessibility issues in developing regions has the opportunity to massively improve global health standards and save millions of lives.

Broadly, highly developed countries have decent accessibility to healthcare resources and often have greater **health outcomes** than developing countries. Developed countries often have sophisticated healthcare systems, and the basic **health infrastructure** necessary for a healthy society. However, in developed countries, the distribution of healthcare resources within countries can vary greatly. In some developed countries, healthcare resources are relatively evenly distributed throughout society, with all people, regardless of income, having roughly the same access to healthcare or a suitable minimum level of healthcare. In other developed countries, accessibility and health equity are not evenly distributed

throughout society, with wealthier individuals having greater access to healthcare resources, and therefore typically better health outcomes, than their lower-income peers. In general, lower-income, rural, female, disabled, and minority populations in both developed and developing countries are the most burdened by access and equity issues in the medical field.

Throughout history, the medical field has utilized an in-person model where medical professionals would meet face-to-face with patients. With this model, a patient's medical care was largely based on location, with the patient having access to only local medical professionals and resources. This location-based healthcare is still the predominant mode of health access for the majority of the world's population. However, increases in digital connectivity through computers, smartphones and the internet has brought the rise of **telehealth** as a significant and growing sector of healthcare.

Telehealth has broadened the accessibility for patients, many of whom are no longer constrained by distance or location for access to critical healthcare services. For example, a patient living in the rural countryside suffering from a chronic health issue has, through the emergence of telehealth, access to a wide array of professionals and services that could provide critical care, and allow the patient to successfully manage their condition.

Telehealth has grown in importance with the onset of the COVID-19 pandemic, where in-person contact is difficult or even dangerous for people with certain health conditions. Due to COVID-19, many medical professionals have opted for virtual services in order to limit the spread of infectious disease and protect themselves and their patients. This has been increasingly prevalent in mental, emotional, and social health services with many therapies, addiction services, or social support services being moved online.

Clearly, telehealth has significant benefits to individual and community health, and is an important part of modern health systems. However, telehealth services are limited by basic technological barriers such as the need for high speed and reliable internet service as well as sufficient digital literacy to navigate the increasingly complicated world of virtual healthcare. Thus, telehealth, a valuable medical option for many, suffers from the same access and equity concerns especially when considering the persistent and growing digital divide. For the billions of people around the world without sufficient access to technological resources, the growth of telehealth has had minimal impact on healthcare and health outcomes.

Another persistent issue within the medical field is the ever-expanding technological resources needed to treat patients. As medical care progresses throughout the world, health treatments become increasingly more complicated, expensive, and dependent on advanced technologies. From MRI machines, to radiation therapy and beyond, medical treatments are becoming more advanced and more expensive each year. For billions of people around the world, access to these types of treatments is simply impossible, and represents one of the biggest gaps in global medical equity.

The Charge - Create a Regional Policy Proposal Presentation

The **2022 Global Economic Forum** will simulate the international community's fight against growing digital inequality, which has gained increased global attention and has been exacerbated by the COVID-19 pandemic. The World Bank is seeking to fund innovative solutions to this crisis, and has called for interested policymakers to submit their proposals. Invited Student Delegates (that's you!) will represent an assigned global region and committee topic related to the issue of *Closing the Digital Divide*. Each team will present their strategy for combating this evolving issue to other students in their committee representing other global regions at the very beginning of the Forum's first committee breakout session. After hearing each region's initial presentation, your committee will then collaborate on a collective policy proposal aimed at solving your committee's topic on a global scale, while representing the needs and opportunities of each represented regional group.

During the Closing Plenary at the end of the program day, each committee will present their policy proposals to the Closing Plenary. One member of each region in the committee group will present the committee's newly-created collective policy proposal. A panel of judges representing the World Bank will hear each committee proposal, ask clarifying questions, and ultimately determine a winning committee team, awarding them fictitious funding for their policy proposal.

It is critical that you read the separate *Instructions for Creating a Regional Policy Proposal Presentations* **for further details and expectations.** Teams are encouraged to utilize the provided presentation template (in your school's Google Drive program folder) when creating their Regional Policy Proposal presentations. Each team will have 3-5 minutes to present and should have no more than 5 slides in their presentation (not including the title slide). Each team should be prepared to answer 3-5 minutes of questions from their peers about their policy proposals.

This briefing paper should serve as a starting point for understanding the overall challenges of your assigned committee topic, however, you will also need to conduct additional research. Please see the Council's Global Economic Forum resources **webpage** for suggested additional resources. The purpose of this Forum is not only for Delegates to gain a holistic understanding of the social, political, and economic implications and consequences of the digital divide, but also for Delegates to also gain experience in the policymaking process as it relates to critical international issues. Best of luck!

Quick Facts

Find at least five quick facts from this briefing paper or in reputable online sources that will be useful in creating your Regional Policy Proposal. Quick facts should be about one sentence long and provide useful information on your assigned committee topic.

1. Just 53 percent of adults with incomes less than $30,000 have broadband at home, compared with 95 percent of those with incomes above $75,000.
2. Nearly 68 percent of those without broadband at home live in rural communities.
3.

4.
5.
6.

Questions to Consider

1. Define the digital divide. Give 2 examples of how the digital divide manifests in society.
2. Who is most at-risk from the digital divide? Why are these populations at the most risk?
3. Define physical, mental and social health. How do these combine to define a persons total health?
4. What are some health issues confronting developed and developing countries?
5. How has the digital divide impacted healthcare in developed and developing countries?
6. What are some potential solutions in bridging healthcare issues in developing and developed countries?

Glossary

Term	Description
5G	The fifth generation technology standard for broadband cellular networks, which cellular phone companies began deploying worldwide in 2019, and is the planned successor to the 4G networks which provide connectivity to most current cell phones.
Access	The opportunity to obtain something or the ability to enter a particular space. For example, someone with a bank account has access to a loan, whereas someone with a bank account does not have access to the same item, in this case a loan.
Broadband internet	The transmission of high-quality data. In its simplest form, Broadband is a high-speed Internet connection that is continuously present.
Developed countries	A developed country is a sovereign state that has a high quality of life, developed economy and advanced technological infrastructure relative to other less industrialized countries.
Developing regions	A developing region is a sovereign state with a less developed industrial base and a low Human Development Index relative to other countries.
Digital divide	The gap between those who have ready access to Information and Communication Technology (i.e. computers and the internet), and those who do not.
Digital literacy	An individual's ability to find, evaluate, and clearly communicate information through text and other media on various digital platforms.
Equity	Fairness and justice in terms of outcome. Equity means understanding unique backgrounds and abilities and searching for the most equitable outcome. Equity does not equal equality.
Health Infrastructure	Gatekeeping is the activity of restricting or limiting access to something.

Health Outcomes	How healthy a county is right now. It reflects the physical and mental well-being of residents within a community through measures representing not only the length of life but quality of life as well.
Healthcare Resources	The available manpower, facilities, revenue, equipment, and supplies to produce requisite health care and services.
Information and communication technology (ICT)	An extensional term for information technology (IT) that stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals) and computers, as well as necessary enterprise software, middleware, storage and audiovisual, that enable users to access, store, transmit, understand and manipulate information.
Internet and technology infrastructure	The physical hardware, transmission media, and software used to interconnect computers and users on the Internet.
Justice	The quality of being impartial, or fair in treatment and/or outcome. Justice involves an understanding of the backgrounds and histories of people and the fairness of their outcomes based on these priors.
Mental Health	Our emotional, psychological, and social well-being which affects how we think, feel, and act while also helping to determine how we handle stress, relate to others, and make choices.
Non-binding resolution	A written motion adopted by a deliberative body that cannot progress into a law.
Physical Health	A state of health and well-being and, more specifically with relation to the body, the ability to live free of disease, ailment, or injury and allowing people access to gainful employment and daily activities.
Social Health	Our ability to interact and form meaningful relationships with others and relates to how comfortably we can adapt in social situations.
Social Determinants of Health	
Telehealth	The distribution of health-related services and information via electronic information and telecommunication technologies.
Ubiquity	The fact of appearing everywhere or of being very common.
United Nations	An intergovernmental organization aiming to maintain international peace and security, develop friendly relations among nations, achieve international cooperation, and be a center for harmonizing the actions of nations. It is the world's largest and most familiar international organization.

Works Cited

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[Wealth Matters for Health Equity - Robert Wood Johnson Foundation](#)

[Disconnected: Seven Lessons on Fixing the Digital Divide -Federal Reserve Bank of Kansas City](#)