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# The Exacerbating Role of Technological and Connectivity Challenges on Older Detroiters' Health in a Pandemic

Nicholas Schroeck & Carrie Leach<sup>1</sup>

## INTRODUCTION

The COVID-19 pandemic hit communities of color hard.<sup>2</sup> The City of Detroit was particularly vulnerable to COVID-19 due to racial, socioeconomic, and environmental health factors.<sup>3</sup>

For older adults in Detroit, these factors were exacerbated by the added impact of technological barriers that existed before and during the pandemic.<sup>4</sup> Indeed, research has shown that the digital divide amplified health outcome disparities and that Detroit is behind the curve in the transition to telehealth and telemedicine.<sup>5</sup>

Telemedicine is defined by the National Institutes of Health as using technology to provide and support healthcare from a distance.<sup>6</sup> This technology can provide patients with access to timely, quality, and affordable medical aid services without leaving their homes. Due to the dearth of primary care providers and the difficulty of accessing medical services under normal circumstances in Detroit, improved telemedicine is a good solution for older adults to receive medical checkups, assess their health status, and receive a diagnosis and treatment without risking exposure to COVID-19. Older adults in general are more likely to experience barriers to telehealth and older Detroit residents face additional

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<sup>2</sup> Rick Pluta, *COVID-19 Race Disparities Task Force Rolls Out Final Report*, MICH. RADIO (Mar. 4, 2022), <https://www.michiganradio.org/health/2022-03-04/covid-19-race-disparities-task-force-rolls-out-final-report> [https://perma.cc/ZEB7-BB2F] (last visited Feb. 11, 2023).

<sup>3</sup> *Id.*; Ahmad Khanijahani et al., *A Systematic Review of Racial/Ethnic and Socioeconomic Disparities in COVID-19*, 20 INT'L J. FOR EQUITY IN HEALTH 248 (2021).

<sup>4</sup> Nargis Rahman, *Pandemic Reveals Issues Already Prevalent for Older Adults Such as Loneliness, Holistic Health Care*, WDET 101.9 FM (Dec. 31, 2021), <https://wdet.org/2021/12/31/pandemic-reveals-issues-already-prevalent-for-older-adults-such-as-loneliness-holistic-health-care/> [https://perma.cc/J5UV-TRJ6] (last visited Feb. 11, 2023).

<sup>5</sup> Olivia Lewis, *Disparity in Broadband Access Limits Telehealth Opportunities for Detroiters*, BRIDGE DET. (July 10, 2020), <http://www.bridgedetroit.com/disparity-in-broadband-access-limits-telehealth-opportunities-for-detroiters/> [https://perma.cc/787L-3CUF] (last visited Feb. 11, 2023).

<sup>6</sup> *Telehealth*, NAT'L INST. OF BIOMEDICAL IMAGING AND BIOENGINEERING, <https://www.nibib.nih.gov/science-education/science-topics/telehealth> [https://perma.cc/Z358-Z6ES] (last visited Feb. 11, 2023).

racial and socioeconomic obstacles in obtaining internet access, web-enabled devices, and age-appropriate training.<sup>7</sup>

The City of Detroit has three unique characteristics that make it a critical location for bolstering digital inclusion: (1) Detroit's older African-American population experiences a higher rate of mortality and morbidity than older residents in the rest of Michigan; (2) more than 50% of older African-Americans in Detroit live in a federally designated medically underserved area;<sup>8</sup> and (3) Detroit has one of the lowest internet connectivity rates in the United States.<sup>9</sup>

To analyze the exacerbating role of technology and connectivity challenges on older Detroiters' health in a pandemic, we first examined Detroit's demographics. This analysis involved looking at the continued evolution of the City's population toward older adults, as well as the impact of COVID-19 and the healthcare services on Detroit's elder population.

Next, we examined Detroit's internet access challenges, including the presence of digital exclusion among older adults in Detroit, the impact of COVID-19 on digital inclusivity, the requirements for telehealth services and how they limit access to older adults, COVID-19 funding for telehealth services and internet connectivity, and finally the impact of access to devices and digital literacy in Detroit.

Finally, we addressed how Detroit, the State of Michigan, and the Federal Government can bridge the digital gap. This recommendation included examining the current steps taken by The Center for Urban Responses to Environmental Stressors (CURES), and what programs are needed next, including follow-up, connecting with community partners, the potential benefits of funding announcements by federal and state programs aimed at addressing connectivity gaps, and community-based connectivity solutions and their real-world impact.

## I. DETROIT DEMOGRAPHICS

As of July 2021, Detroit is estimated to be home to 632,464 residents and remains the most populous city in Michigan.<sup>10</sup> However, due in large part to people relocating to the surrounding suburbs, Detroit's population has been reduced by over half in the last sixty years, representing the highest rate of population decrease in the United States.<sup>11</sup> Detroit is a

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<sup>7</sup> *Has Telehealth Turned A Corner?*, MICH. HEALTH ENDOWMENT FUND (June 26, 2020), <https://mihealthfund.org/has-telehealth-turned-a-corner> [https://perma.cc/3XML-KCGM] (last visited Feb. 11, 2023).

<sup>8</sup> Herbert Smitherman, Lee Kallenbach & Anil Aranha, *Dying Before Their Time III*, DET. AREA AGENCY ON AGING (July 2020), <https://www.docdroid.net/w7ygR00/dying-before-their-time-iii-daaa-2020-final-pdf> (last visited Feb. 11, 2023).

<sup>9</sup> *Equitable Internet Initiative*, DET. COMMUNITY TECH. PROJECT, <https://detroitcommunitytech.org/eii> [https://perma.cc/6DTU-ZGYR] (last visited Feb. 11, 2023).

<sup>10</sup> Christine MacDonald & Kristi Tanner, *Detroit's population decline continues as diversity lifts state total*, DET. FREE PRESS (Aug. 13, 2021), <https://www.freep.com/story/news/local/michigan/2021/08/13/census-2020-michigan-detroit-population/5544641001/> [https://perma.cc/8XF7-KWC9] (last visited Feb. 11, 2023).

<sup>11</sup> *Id.*

diverse, African-American-majority city,<sup>12</sup> yet ranked last in the state in 2022 for health outcomes and was the most impoverished big city in the nation until 2020 when it dropped to second place behind Cleveland, Ohio.<sup>13</sup>

As a post-industrial city, Detroit has many pressing health, environmental, and infrastructure concerns. While Detroit's total budget appropriation per capita in 2017 was comparable to cities of a similar size, the massive depopulation of the city alongside the low median income placed far more strain on available resources.<sup>14</sup>

Detroit residents face above-average pollutant exposures; a crumbling infrastructure with limited resources for maintenance or remediation; eroded essential city services (e.g., waste removal); severe declines in the quality of public education; limitations in transportation, housing, and health care access; and psychosocial stressors (e.g., violence exposure) that impact and curtail healthy lifestyles.<sup>15</sup> These stressors contribute to serious environmental health disparities. For example, the prevalence of asthma in Detroit is 46% higher than in Michigan as a whole.<sup>16</sup> The Detroit community is home to ethnic and racial minorities living with oil refining, steel manufacturing, and heavy industry in their backyards. Residents in Southwest Detroit regularly breathe air contaminated with respiratory irritants, toxicants, and carcinogens, and harmful air particulates.<sup>17</sup> Environmental exposures to these conditions during vulnerable life stages, such as old age, are particularly concerning.<sup>18</sup>

### A. Older Adults in Detroit

As is the case in other post-industrial cities, Detroit is experiencing an unprecedented demographic shift as declining birth rates and increasing life expectancy fundamentally change the age profile of the population.

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<sup>12</sup> UNITED STATES CENSUS BUREAU, <https://www.census.gov/quickfacts/detroitcitymichigan> [https://perma.cc/7SF7-7JCX] (last visited Feb. 11, 2023).

<sup>13</sup> *Cleveland Overtakes Detroit As Poorest Big City In U.S.*, *Census Finds*, THE DET. NEWS, <https://www.detroitnews.com/story/news/local/detroit-city/2020/09/17/cleveland-overtakes-detroit-poorest-big-city-u-s-census/3476269001/> [https://perma.cc/H884-TZ5T] (last visited Feb. 11, 2023).

<sup>14</sup> *Fiscally Standardized Cities*, LINCOLN INST. OF LAND POLICY, <https://www.lincolninst.edu/research-data/data-toolkits/fiscally-standardized-cities> [https://perma.cc/K8JE-K59E] (last visited Feb. 11, 2023); James Tatum, *A Comparative Analysis of the City of Detroit's Budget and Staffing*, CITIZENS RSCH. COUNCIL OF MICH. (Aug. 4, 2022), <https://crcmich.org/a-comparative-analysis-of-the-city-of-detroits-budget-and-staffing> [https://perma.cc/BQA4-Q9A8] (last visited Feb. 11, 2023).

<sup>15</sup> Josiah Rector, *Toxic Debt* (2022).

Prudence Kunyanga & Beth Anderson, *Detroit: The Current Status of Asthma Burden*, MICH. DEP'T OF HEALTH & HUMAN SERVICES (2021), [https://www.michigan.gov/-/media/Project/Websites/mdhhs/Folder50/Folder3/Detroit-AsthmaBurden-2021\\_Update.pdf?rev=187419566778478fa169dfb8bb7791b1](https://www.michigan.gov/-/media/Project/Websites/mdhhs/Folder50/Folder3/Detroit-AsthmaBurden-2021_Update.pdf?rev=187419566778478fa169dfb8bb7791b1).

<sup>17</sup> *Air Pollutant Sources, Exposures, & Health Impacts*, CMTY. ACTION TO PROMOTE HEALTHY ENV'TS, <https://caphedetroit.sph.umich.edu/air-pollutant-source-exposures-health-impacts/> [https://perma.cc/BU3R-W9YV] (last visited Feb. 11, 2023).

<sup>18</sup> J. Schwartz, *Air Pollution And Hospital Admissions For The Elderly In Detroit, Michigan*, 150 AM. J. OF RESPIRATORY AND CRITICAL CARE MED. 648 (1994).

The fastest-growing segment of the population, people ages 65 and over, live with at least one chronic health condition; more than one-third (39%) of older Detroit residents manage at least three chronic conditions like diabetes, heart disease, hypertension, and stroke.<sup>19</sup> Investigations into the etiology of racial disparities have revealed that African-Americans develop most age-related diseases earlier than White Americans.<sup>20</sup> Mortality rates for diabetes, heart disease, and cancer are higher for Detroit residents than they are in the rest of the State of Michigan or nationally.<sup>21</sup> In fact, according to *Dying Before Their Time*, a study that gained national attention in 2002, and again in 2020 when the study was updated, death rates of Detroit seniors are nearly twice as high than in the rest of the State of Michigan.<sup>22</sup> The updated study also found that premature death rates and the disproportionate burden of metabolic, cancer, and heart diseases were not abated over the nearly two-decade span between the two study points.

Inequities persist in costs too, which has harmful impacts on individuals with fixed incomes and often impedes access to health care and adequate nutrition. Although African-American adults have lower life expectancies, they are burdened with higher health care costs than their white counterparts, which is especially challenging for older Detroit residents, a significant portion of whom live in poverty.<sup>23</sup>

### *B. COVID-19 and Healthcare Services for Detroit's Elders*

Older adults with underlying conditions were, and continue to be, at high risk of developing severe COVID-19 symptoms compared to younger individuals.<sup>24</sup> Healthcare and health management become a central activity in later life as the need to manage chronic conditions increases. For example, people ages 18 to 44 years old receive medical care two to three times annually, whereas those ages 75 and older have eight outpatient medical visits per year on average.<sup>25</sup> Adequate care is lacking and more

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<sup>19</sup> Estelle Sloomaker, *New report analyzes state data to find that older Detroiters are 'dying before their time'*, MODEL D (Aug. 10, 2020),

<https://www.modeldmedia.com/features/dyingbeforetheirtime08102020.aspx>

[<https://perma.cc/GG27-G4PF>].

<sup>20</sup> Roland J. Thorpe et al., *Accelerated Health Declines Among African Americans in the USA*, 93 J. URBAN HEALTH 808 (2016).

<sup>21</sup> *Number of Deaths and Age-adjusted Mortality Rates for the Ten Leading Causes of Death, Michigan 2021 and United States Residents, 2020*, MICH.GOV (2022),

<https://vitalstats.michigan.gov/osr/deaths/causrankcnty.asp> [<https://perma.cc/29HR-UNW4>].

<sup>22</sup> Smitherman, *supra* note 8.

<sup>23</sup> Josephine A. Menkin et al., *Racial/Ethnic Differences in Expectations Regarding Aging Among Older Adults*, 57 THE GERONTOLOGIST S138 (Aug. 2017); Sandra Svoboda, *Detroit by the numbers – the truth about poverty*, BRIDGE MICH. (Mar. 19, 2015), <https://www.bridgemi.com/urban-affairs/detroit-numbers-truth-about-poverty> [<https://perma.cc/K3B4-9K8F>].

<sup>24</sup> Vanessa Rorai & Tam E. Perry, *An Innovative Telephone Outreach Program to Seniors in Detroit, a City Facing Dire Consequences of COVID-19*, J. GERONTOLOGICAL SOC. WORK (2020).

<sup>25</sup> Jake Harwood, *Understanding Communication And Aging: Developing Knowledge And Awareness*, SAGE PUBLNS, INC. (2007), <https://sk.sagepub.com/books/understanding-communication-and-aging> [<https://perma.cc/TQZ9-KV8W>].

than 54% of older adults in Detroit reside in a federally designated medically underserved area compared to 16.5% in the rest of Michigan.<sup>26</sup> Moreover, healthcare is rarely senior-centered and geriatric training and specialization remain scarce among health professions.<sup>27</sup> The increase in virtual care has left many Detroit seniors without the information, services, and resources needed to prevent more harm and protect themselves, especially during the COVID-19 pandemic.<sup>28</sup>

At the onset of the pandemic, special efforts were made to protect vulnerable populations including older adults and other high-risk patients. Healthcare facilities including clinics, primary care physician offices, and other outpatient facilities in Detroit were mandated to add special hours for older adults and other high-risk patients in order to reduce transmission and risk.<sup>29</sup>

As “stay-at-home” orders were announced across the country, digital healthcare options for older adults became essential. Access to telehealth services typically requires a high-speed broadband connection for video calls and teleconferencing when attending to patients.<sup>30</sup> Many low-income Detroit older adults reside in apartments or homes that do not have reliable network connectivity and cannot benefit from telehealth services.<sup>31</sup>

While age and income are significant factors for many citizens, such as the city’s African- American population, these problems are exacerbated by discriminatory, racist, and historical policies and practices which have impeded education, access to knowledge, and health and digital literacy that are drivers of poor health outcomes.<sup>32</sup> These issues adversely affect health decision-making and have been linked to barriers to using preventative care and contribute to trouble understanding and managing medical conditions as well as coping with their environment.<sup>33</sup>

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<sup>26</sup> Smitherman, *supra* note 8,

<sup>27</sup> *Retooling for an Aging America: Building the Health Care Workforce*, INST. OF MED. (US) COMM. ON THE FUTURE HEALTH CARE WORKFORCE FOR OLDER AMERICANS (2008) (“The overall pattern here is that older Americans account for a disproportionate share of professional health care services but, in spite of this demand, the number of geriatric specialists remains low.”).

<sup>28</sup> Ilaaf Darrat et. al, *Socioeconomic Disparities in Patient Use of Telehealth During the Coronavirus Disease 2019 Surge*, JAMA OTOLARYNGOL HEAD & NECK SURGERY (2021).

<sup>29</sup> Emergency Order for Control of Epidemic, Det. Health Dep’t (2020), at 11-12.

<sup>30</sup> Health Resources & Services Administration, *Getting Patients Set Up With Telehealth Technology | Telehealth.HHS.gov*, <https://telehealth.hhs.gov/providers/preparing-patients-for-telehealth/getting-patients-set-up-with-new-technology/> [<https://perma.cc/EC58-5MVJ>] (last visited Feb. 11, 2023).

<sup>31</sup> Eli Newman, *The Digital Divide in Detroit: How the City is Working to Bridge the Gaps*, WDET 101.9 FM (June 28, 2021), <https://wdet.org/2021/06/28/the-digital-divide-in-detroit-how-the-city-is-working-to-bridge-the-gaps/> [<https://perma.cc/FM67-ASZL>] (last visited Feb. 11, 2023).

<sup>32</sup> Gilbert C. Gee & Chandra L. Ford, *Structural Racism and Health Inequities*, 8 DU BOIS REV. 115 (2011).

<sup>33</sup> Thomas D. Denberg, Sabrina Wong & Angela Beattie, *Women’s Misconceptions About Cancer Screening: Implications For Informed Decision-Making*, 57 PATIENT EDUC. AND COUNSELING 280 (2005).

## II. DETROIT INTERNET ACCESS CHALLENGES

Contemporary America relies upon the internet. Although cities worldwide are advancing in telecommunication technologies, Detroit's development has stagnated due to inadequate infrastructure distribution. A significant proportion of Detroit's population lacks internet connectivity and cannot access online services. According to US Census data, roughly 25% of the Detroit population has no internet at home. This is significantly higher than the State average.<sup>34</sup>

Furthermore, due to Detroit's economic woes, telecommunications companies have historically avoided investing in the city. In 2017, the National Digital Inclusion Alliance described one telecommunications companies' avoidance of poorer neighborhoods of color in the similar-sized and economically placed city of Cleveland as "digital redlining."<sup>35</sup> Due to these compounding factors, local businesses, education, and healthcare services have been harmed.<sup>36</sup>

*A. Digital Exclusion Among Older Adults in Detroit*

Older adults' lack of experience with technology limits their connections with health and community-based services and resources that they can use to manage their health.<sup>37</sup> Even though "[t]he internet has become one of the most influential sources in people's media repertoire" many older adults lack the skills and resources to access the internet.<sup>38</sup> Technology, including computers, tablets, and smartphones, are fundamental communication tools. However, age plays a significant role in competency.<sup>39</sup>

While U.S. Census data shows that approximately 75% of Detroit households have broadband internet, those who earn less, have less education, and are older, are far less likely to have home broadband connections than the general population.<sup>40</sup> Although smartphone and tablet ownership has increased among older adults, their adoption remains

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<sup>34</sup> U.S. Census Bureau, *supra* note 12.

<sup>35</sup> Bill Callahan, *AT&T's Digital Redlining Of Cleveland*, NAT'L DIG. INCLUSION ALLIANCE (Mar. 10, 2017), <https://www.digitalinclusion.org/blog/2017/03/10/atts-digital-redlining-of-cleveland/> [https://perma.cc/NN73-7GC2] (last visited Feb. 11, 2023).

<sup>36</sup> Tom Wheeler & Mignon Clyburn, *Detroit's Digital Divide*, FED. COMM'N COMM'N (Oct. 27, 2015), <https://www.fcc.gov/news-events/blog/2015/10/27/detroit-digital-divide> [https://perma.cc/E9PJ-TXGS] (last visited Feb. 11, 2023).

<sup>37</sup> Carrie Leach, *Understanding The Utilization Of Community-Based Services In Late Old Age: A Participatory Approach For Connecting Through The Communication Ecology*, WAYNE STATE UNIVERSITY DISSERTATIONS (Jan. 2019), [https://digitalcommons.wayne.edu/oa\\_dissertations/2223](https://digitalcommons.wayne.edu/oa_dissertations/2223).

<sup>38</sup> Joseph B. Walther, *Computer-Mediated Communication*, THE HANDBOOK OF COMMUNICATION SCIENCE (2010), [https://sk.sagepub.com/reference/hdbk\\_commsci/n28.xml](https://sk.sagepub.com/reference/hdbk_commsci/n28.xml) (last visited Feb. 11, 2023).

<sup>39</sup> Harwood, *supra* note 28.

<sup>40</sup> Monica Anderson & Andrew Perrin, *Technology Use Among Seniors*, PEW RSCH. CENTER (May 17, 2017), <https://www.pewresearch.org/internet/2017/05/17/technology-use-among-seniors/> [https://perma.cc/5YW3-A5HJ] (last visited Feb. 11, 2023); U.S. Census Bureau, *supra* note 12.

slowest in the oldest age groups, particularly with those 70 years and older.<sup>41</sup>

Despite optimistic reports that technology usage and adoption rates are increasing for older users, state-wide survey data of older Michigan residents shows that as seniors age, they rely on and use technology at lower rates (see Table 1 below).<sup>42</sup> Likewise, as people get older, they are less likely to seek health-related information through digital outlets, like the internet or social media channels (see Table 2 below). Location-based resources for accessing health information, including senior centers and libraries, were inaccessible during the pandemic, which only increased communication disparities among older adults who had social access.<sup>43</sup>

Table 2 demonstrates the importance of connecting healthcare professionals and personal network members, such as friends and family, with older adults to help them access trusted and reliable information related to their health.

The United States is unique in that older age predicts a smaller network size and a lower proportion of personal network members who live nearby.<sup>44</sup> Older adults' vulnerabilities are exacerbated by digital exclusion due to a lack of education, training, support, literacy skills, and internet access, which limits their ability to connect with others who can help ensure well-being.<sup>45</sup>

*Table 1: Older Adults' Technology Use by Age Group*

	All ages	60-64	65-74	75-84	≥85+
Internet	69%	84%	72%	58%	28%
Social media	42%	22%	23%	16%	22%

\*Note: Technology used in last 12 months; internet use includes web and/or email; data from statewide random digit dial telephone survey of Michigan residents ages 60 and over (n=600).

<sup>41</sup> Brittnie Nelson Kakulla, *Older Adults Keep Pace on Tech Usage*, AARP (Jan. 2020) <https://www.aarp.org/research/topics/technology/info-2019/2020-technology-trends-older-americans.html> [<https://perma.cc/VE2C-CP7J>] (last visited Feb. 11, 2023).

<sup>42</sup> Anderson, *supra* note 42.

<sup>43</sup> Carrie Leach & Thomas Jankowski, *Exploring Communication Disparities In Late Old Age Through The Lens Of Communication Infrastructure Theory*, 6 INNOVATION IN AGING 585 (2022).

<sup>44</sup> Kristine J Ajrouch et al., *Convoy of Social Relations in Cross-National Context*, 58 THE GERONTOLOGIST 488 (2018).

<sup>45</sup> *Id.*

Table 2: Older Adults' Health Information Seeking Channels by Age Group

	Rank	All Ages	Rank	60-64	Rank	65-74	Rank	75-84	Rank	≥85
Healthcare provider	1	85%	2	82%	1	86%	1	90%	1	77%
Friends & family	2	80%	1	84%	2	80%	2	79%	2	73%
Internet search	3	50%	3	72%	3	54%	5	39%	7	25%
Senior Center	4	45%	5	42%	4	46%	3	45%	4	44%
Home delivered mail	5	44%	4	44%	5	45%	4	42%	3	45%
Newspaper	6	34%	7	30%	6	33%	6	35%	5	39%
Library	7	33%	6	40%	8	33%	7	30%	7	25%
TV	8	31%	9	27%	7	34%	8	29%	6	28%
Magazines	9	29%	8	28%	9	32%	9	27%	9	26%
Social media	10	21%	10	22%	10	23%	10	16%	10	22%

\*Note: Radio (n=120) and Flyers, posters, or billboards (n=116), and "Other" responses were not included in the table; data from statewide random digit dial telephone survey of Michigan residents ages 60 and over (n=600).

These outcomes are not limited to the circumstances that have resulted from the pandemic; digital exclusion will continue to place older adults at a disadvantage as telehealth is normalized and digital illiteracy persists.<sup>46</sup> Digital exclusion contributes to health disparities as it impedes older adults' connection to vital information through the internet, a critical conduit to health resources and care which influences health outcomes.<sup>47</sup>

### B. COVID-19 and Digital Exclusion

Michigan reported its first confirmed COVID-19 infection in March 2020 and case counts soon exploded in Detroit.<sup>48</sup> The Michigan Department of Health and Human Services cautioned all hospitals to prepare for the high volume of COVID-19 cases and set safety precautions to mitigate its spread within the city.<sup>49</sup> Healthcare facilities were urged to employ special procedures for patients that presented symptoms of the disease.<sup>50</sup> Most of these patients were elderly and immediately transferred

<sup>46</sup> Brittney Crock Bauerly et al., *Broadband Access as a Public Health Issue: The Role of Law in Expanding Broadband Access and Connecting Underserved Communities for Better Health Outcomes*, 47 JOURNAL OF LAW, MEDICINE & ETHICS 39 (2019); Natalie C. Benda et al., *Broadband Internet Access Is a Social Determinant of Health!*, 110 AM. J. PUB. HEALTH 1123 (2020); Chukwuma N. Eruchalu et al., *The Expanding Digital Divide: Digital Health Access Inequities during the COVID-19 Pandemic in New York City*, 98 J. URBAN HEALTH 183 (2021).

<sup>47</sup> *Id.*

<sup>48</sup> Mary M. Chapman et al., *Coronavirus Sweeps Through Detroit, a City That Has Seen Crisis Before*, THE N.Y. TIMES (Mar. 30, 2020), <https://www.nytimes.com/2020/03/30/us/coronavirus-detroit.html> [https://perma.cc/T4L6-A4YP] (last visited Feb 11, 2023).

<sup>49</sup> Kara Gavin, *What Can Hospitals Do to Prepare for COVID-19 Cases?*, MICH. MED. (Mar. 13, 2020), <https://www.michiganmedicine.org/health-lab/what-can-hospitals-do-prepare-covid-19-cases#:~:text=Hospitals%20should%20be%20prepared%20to,the%20Annals%20of%20Internal%20Medicine> [https://perma.cc/JJY4-MKHZ].

<sup>50</sup> Emergency Order for Control of Epidemic, DET. HEALTH DEP'T (2020), at 12. "Employ specialized procedures for patients with high temperatures or respiratory symptoms (e.g., special entrances, having them wait in their car) to avoid exposing other patients in the waiting room."

to the ICU because of breathing difficulties.<sup>51</sup> For example, Henry Ford Health Institute became overwhelmed due to the number of patients admitted exceeding capacity and the limited availability of ICU beds.<sup>52</sup> Physicians faced a dilemma between providing care to the elderly, or to younger patients who had contracted the disease.<sup>53</sup> Michigan's medical facilities did not have enough practitioners to handle all the patients, forcing nurses and doctors to work prolonged overtime shifts.<sup>54</sup>

In response to the dire situation at southeast Michigan hospitals, the state instituted a stay-at-home order.<sup>55</sup> Gatherings outside of immediate households were banned, many businesses went into fully remote operations, schools moved to online education, and everyone except essential workers were urged to stay home to slow the spread of the virus.<sup>56</sup> Older adults, who were at most significant risk from the virus, faced a new normal of social isolation.<sup>57</sup> Many older adults accustomed to regular human interaction with friends and family were forced into physical isolation through necessary social distancing policies.<sup>58</sup> As a result, Detroit's older adults had less access to medical services that were scarce even before the pandemic.<sup>59</sup> Telemedicine and telehealth services assisted many individuals in acquiring quality medical services during the pandemic.<sup>60</sup> In Detroit, however, few medical practitioners could use telehealth and telemedicine to improve health outcomes during the COVID-19 pandemic due to the lack of patient access to technology and internet connections.<sup>61</sup>

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<sup>51</sup> Aikaterini Gkoufa et al., *Elderly Adults With Covid-19 Admitted To Intensive Care Unit: A Narrative Review*, 10 WORLD J. CRITICAL CARE MED. 278 (2021).

<sup>52</sup> Linda Gifford et al., *Covid-19 In The Hotspot Of Metropolitan Detroit: A Multi-faceted Health System Experience*, 37 HEALTH PLANNING & MGMT. 657 (2022).

<sup>53</sup> Jenny Jarvie, *Ethical Dilemmas In The Age Of Coronavirus: Whose Lives Should We Save?*, L.A. TIMES (Mar. 19, 2020), <https://www.latimes.com/world-nation/story/2020-03-19/ethical-dilemmas-in-the-age-of-coronavirus-whose-lives-should-we-save> [https://perma.cc/HNJ6-Y9GE] (last visited Feb. 11, 2023).

<sup>54</sup> *Safe Patient Care Act*, MI NURSES ASS'N (2017), <https://www.house.mi.gov/sessiondocs/2017-2018/testimony/Committee425-11-29-2017-6.pdf>.

<sup>55</sup> *Governor Whitmer Signs "Stay Home, Stay Safe" Executive Order*, MICH.GOV (Mar. 23, 2020), <https://www.michigan.gov/whitmer/news/press-releases/2020/03/23/governor-whitmer-signs-stay-home-stay-safe-executive-order> [https://perma.cc/28WT-7TVP] (last visited Feb. 11, 2023).

<sup>56</sup> Derick Hutchinson, *Michigan Stay-at-home Order Timeline: 70 Days, 4 Extensions, Ever-changing Restrictions*, CLICK ON DET. (May 6, 2022), <https://www.clickondetroit.com/news/local/2020/06/02/michigan-stay-at-home-order-timeline-70-days-4-extensions-ever-changing-restrictions/> [https://perma.cc/G25Z-SSRG] (last visited Feb. 11, 2023).

<sup>57</sup> Stephanie MacLeod et al., *COVID-19 Era Social Isolation among Older Adults*, 6 GERIATRICS (BASEL) 52 (2021).

<sup>58</sup> *Id.*

<sup>59</sup> Sarah Rahal, *Wayne Co. Seniors Are Dying At Twice The Rate Of Older Adults In Michigan, Study Shows*, THE DET. NEWS (Aug. 10, 2022), <https://www.detroitnews.com/story/life/wellness/2020/08/10/detroit-senior-citizens-higher-mortality-rate/3320137001/> [https://perma.cc/XCA6-NQ57] (last visited Feb. 11, 2023).

<sup>60</sup> *Telehealth in the Pandemic—How Has It Changed Health Care Delivery in Medicaid and Medicare?*, U.S. GOV'T ACCOUNTABILITY OFF. (Sept. 29, 2022), <https://www.gao.gov/blog/telehealth-pandemic-how-has-it-changed-health-care-delivery-medicaid-and-medicare/> [https://perma.cc/SD62-ZW76] (last visited Feb. 11, 2023).

<sup>61</sup> Darrat, *supra* note 31. Lewis, *supra* note 5.

Increased isolation resulting from social distancing reduces a person's social capital making it even more likely that senior patients will be incapable of effectively participating in remote healthcare without assistance.

### *C. Requirements for Telehealth Services*

Telemedicine was initially designed to reach patients in remote areas who had access to a telegraph, a radio, or a landline telephone, while today, hospitals, home care providers, and the pharmaceutical industry are able to use advanced internet connectivity to communicate with patients through phone calls or video communications.<sup>62</sup> As telemedicine use has surged during the pandemic, some healthcare providers have developed a 24/7 online system with on-call doctors who attend to patients at any time.<sup>63</sup> New technologies have also created many health monitoring apps that span geographical barriers to delivering health information and care.<sup>64</sup>

For example, smart wristwatches may allow doctors to monitor specific health information without requiring a physical exam.<sup>65</sup> Health monitoring watches like Fitbit can track a patient's heart rate and sugar levels.<sup>66</sup> Physicians monitoring patients with chronic diseases such as diabetes and cardiovascular conditions may be able to receive notifications when their patients require urgent medical attention.<sup>67</sup> This technology allows patients to access quality and timely emergency services to enhance their overall well-being. Most of these devices are sold by third-party manufacturers who design telecommunication devices customized for telehealth services.<sup>68</sup> For patients to effectively utilize these

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<sup>62</sup> Michael X Jin *et al.*, *Telemedicine: Current Impact on the Future*, 12 CUREUS E9891 (2020).

<sup>63</sup> Robin Gelburd, *The Coronavirus Pandemic and the Transformation of Telehealth*, US NEWS & WORLD REPORT, [www.usnews.com/news/healthiest-communities/articles/2020-06-02/covid-19-and-the-transformation-of-telehealth](https://www.usnews.com/news/healthiest-communities/articles/2020-06-02/covid-19-and-the-transformation-of-telehealth) [https://web.archive.org/web/20230504180121/https://www.usnews.com/news/healthiest-communities/articles/2020-06-02/covid-19-and-the-transformation-of-telehealth] (last visited Feb 11, 2023); For another example of a 24/7 telehealth source, see: <https://doctorondemand.com/> [https://perma.cc/ZRW9-3ENV].

<sup>64</sup> *Telemedicine: Opportunities and Developments in Member States*, WORLD HEALTH ORG. (2010), <https://www.afro.who.int/publications/telemedicine-opportunities-and-developments-member-state>.

<sup>65</sup> Tsung-Chien Lu *et al.*, *Healthcare Applications of Smart Watches*, 7 APPLIED CLINICAL INFO. J. 850 (2019); See also *Self-tracking your health data*, CBS NEWS (May 22, 2022), <https://www.cbsnews.com/news/self-tracking-your-health-data-wearables/> [https://perma.cc/JLG7-GU7V].

<sup>66</sup> *Id.*; See also Scripps Research Institute, *Early results from DETECT study suggest fitness trackers can predict COVID-19 infections* (Oct. 29, 2020), <https://www.sciencedaily.com/releases/2020/10/201029141956.htm> [https://perma.cc/B7CU-GXBM].

<sup>67</sup> Dalvin Brown, *'It saved my life': Apple Watch, Fitbit are notifying users of medical emergencies*, USA TODAY (Feb. 20, 2019); See also Daphne Leprince-Ringuet, *Connected health: Your smartwatch will be your connection to your doctor*, ZDNET (July 28, 2020) <https://www.zdnet.com/article/connected-health-your-smartwatch-will-be-your-connection-to-your-doctor/> [https://perma.cc/77VD-UK2E].

<sup>68</sup> GlobalData Thematic Research, *Popular smartwatches for healthcare: Leading companies*, MED. DEVICE NETWORK (Nov. 19, 2019), <https://www.medicaldevice->

communication devices, however, they must also have internet connectivity.

Moreover, even if patients have internet connectivity, connectivity speed affects video quality and reception when communicating virtually with physicians, adding yet another hurdle to telemedicine. Many telehealth connections require broadband bandwidth of about 50-100 megabits per second (Mbps). One hundred Mbps is considered fast, but it is just above average for most internet users and is enough capacity to stream video.<sup>69</sup> Sadly, some of the largest internet providers in Detroit have average speeds below the minimum required amount.<sup>70</sup> Optimal telemedicine infrastructure incorporates a video system that records and transmits video footage between practitioners and their patients. Medical practitioners and patients often use personal computers with video cameras or app-enabled smartphones to connect the two parties. If patients have these communication devices, they must also have internet connectivity to allow their medical practitioners to monitor and provide medical services.

Older adults are also the least likely to use technology, including telemedicine, and reap its benefits.<sup>71</sup> Research has revealed critical gaps in the provision of internet-based healthcare, because older adults lack the experience, skills, and technology tools needed to engage with these services.<sup>72</sup> In fact, the most common barrier to telemedicine use among older adults is technical literacy.<sup>73</sup>

#### *D. COVID-19 Funding for Telehealth Services and Internet Connectivity in Michigan*

In June of 2020, the first year of the pandemic, Michigan's Governor Whitmer signed a series of House Bills (5412-5416) and Senate Bill 940 into law aimed at increasing access to telemedicine and remote patient

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[network.com/comment/smartwatches-healthcare-leading-companies/](https://network.com/comment/smartwatches-healthcare-leading-companies/) [https://perma.cc/XB6E-QWCG].

<sup>69</sup> See Craig Settles, *Broadband is the Achilles' heel of telehealth*, HEALTHCARE IT NEWS (Nov. 18, 2021), <https://www.healthcareitnews.com/blog/broadband-achilles-heel-telehealth> [https://perma.cc/2HW9-FUX9]; See also Tyler Cooper, *Widespread telehealth adoption in rural communities requires widespread broadband availability*, BROADBANDNOW (Nov. 30, 2021), <https://broadbandnow.com/report/telehealth-requires-broadband-availability/> [https://perma.cc/B5YX-MLN5]; See also *Frequently Asked Questions*, HEALTHIT.GOV, <https://www.healthit.gov/faq/what-recommended-bandwidth-different-types-health-care-providers> [https://perma.cc/37NK-QBBE].

<sup>70</sup> *Internet Speeds in Detroit, MI*, REALSPEEDS (Apr. 9, 2023), <https://realspeeds.com/michigan/detroit> [https://perma.cc/2XR3-HBXT] (last visited Feb. 11, 2023).

<sup>71</sup> Devin M. Mann et al., *COVID-19 Transforms Health Care Through Telemedicine: Evidence from the Field*, 27 J. AM. MED. INFO. ASS'N 1132 (2020).

<sup>72</sup> Kenneth Lam et al., *Assessing Telemedicine Unreadiness Among Older Adults in the United States During the COVID-19 Pandemic*, 180 JAMA INTERNAL MED. 1389 (2020).

<sup>73</sup> Clemens Kruse et al., *Utilization Barriers and Medical Outcomes Commensurate With the Use of Telehealth Among Older Adults: Systematic Review*, 8 JMIR MEDICAL INFORMATICS e20359 (2020).

monitoring services.<sup>74</sup> Also in 2020, the Michigan Coronavirus Task Force on Racial Disparities Rapid Response provided a \$3.9 million grant through the United Way for Southeastern Michigan to help low-income seniors access affordable healthcare services.<sup>75</sup> Then, in March 2022, the Michigan legislature approved a large spending plan that included \$250 million to focus on expanding broadband access in the state.<sup>76</sup>

### *E. Devices and Digital Literacy in Detroit*

Tablet computers are a helpful medium for older adults to access the internet for critical information, services, and support. These devices tend to be user-friendly, highly portable, lightweight, and generally less expensive than traditional desktop or laptop computers. However, their adoption among older adults is not widespread; 50% of all U.S. adults use a tablet, yet adults 65 years and older are less likely to do so.<sup>77</sup> Moreover, without the requisite knowledge and skills needed to operate a tablet or computer, the value of merely owning such a device is questionable. This “second-level digital divide” refers to the unequal distribution of digital literacy skills among internet users.<sup>78</sup> Users who are less technically competent may be unable to fully realize the benefits afforded by connecting to the internet. Even worse, such individuals are more likely to experience harmful consequences of internet use, such as cybercrime.<sup>79</sup>

Digital literacy is highly correlated with education level and traditional literacy levels.<sup>80</sup> Assessing digital literacy among older adults is an emerging area of study, and though older adults are less digitally fluent than their younger counterparts, little evidence exists that reports on

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<sup>74</sup> Gov. Whitmer Signs Bills Increasing Health Care Access Into Law, MICH.GOV (June 24, 2020), <https://www.michigan.gov/whitmer/news/press-releases/2020/06/24/gov-whitmer-signs-bills-increasing-health-care-access-into-law> (last visited Feb. 11, 2023).

<sup>75</sup> AP, *Program seeks to shrink digital divide facing older people*, GRAND RAPIDS BUS. J. (2020), <https://grbj.com/news/technology/program-seeks-to-shrink-digital-divide-facing-older-people/> [<https://perma.cc/J4XR-47QM>] (last visited Feb 11, 2023).

<sup>76</sup> Beth LeBlanc & Craig Mauger, *Michigan Lawmakers Approve \$4.8B for Water Infrastructure, Broadband, Housing Aid*, THE DET. NEWS, <https://www.detroitnews.com/story/news/local/michigan/2022/03/23/michigan-house-panel-oks-48-billion-spending-plan-water-broadband-housing-aid/7146998001/> [<https://perma.cc/6K6M-ACRX>] (last visited Feb. 11, 2023).

<sup>77</sup> *Smartphone ownership and social media use among older adults continue to grow*, PEW RSCH. CENTER (Jan. 12, 2022), <https://www.pewresearch.org/short-reads/2022/01/13/share-of-those-65-and-older-who-are-tech-users-has-grown-in-the-past-decade/> [<https://perma.cc/TV8C-6EQ4>].

<sup>78</sup> Hsin-Yi Sandy Tsai et al., *Getting Grandma Online: Are Tablets the Answer for Increasing Digital Inclusion for Older Adults in the U.S.?*, 41 EDUC. GERONTOLOGY 695 (2015).

<sup>79</sup> JAN VAN DIJK, THE DIGITAL DIVIDE (2020).

<sup>80</sup> Heinz Bonfadelli, *The Internet and Knowledge Gaps: A Theoretical and Empirical Investigation*, 17 EUROPEAN J. OF COMM'N 1 (2002); Amy Chesser et al., *Navigating the digital divide: A systematic review of eHealth literacy in underserved populations in the United States*, 41 INFORM HEALTH SOC. CARE 1 (2016); Alexander JAM van Deursen, *Digital Inequality During a Pandemic: Quantitative Study of Differences in COVID-19-Related Internet Uses and Outcomes Among the General Population*, 22 J. OF MED. INTERNET RSCH. e20073 (2020); Alexander van Deursen & Jan van Dijk, *Internet Skills and the Digital Divide*, 13 NEW MEDIA & SOC'Y 6 (2011); VAN DIJK, *supra* note 86.

the perspectives and experiences of technology among non-white users.<sup>81</sup> Most existing research has focused primarily on affluent, well-educated, predominately white populations.<sup>82</sup> The lack of applicable research may limit the development of appropriately tailored interventions, but almost all people, regardless of age, have the capacity to acquire digital literacy skills and master the competencies needed to utilize computing devices.<sup>83</sup>

### III. BRIDGING THE DIGITAL GAP

#### A. *The Center for Urban Responses to Environmental Stressors (CURES)*

The Center for Urban Responses to Environmental Stressors (CURES) Community Engagement Core (CEC) at Wayne State University, of which the authors are a part, has worked to bridge the digital divide. The CEC played an essential role in the “Connecting Seniors” grant program through their strong ties with the Detroit community. In a typical year, the CEC engages 500 people in face-to-face meetings and events focused on disseminating environmental health science and information about resources to cope with stressors to residents throughout the City.<sup>84</sup> Because in-person events came to a halt when the pandemic started in early 2020, the CEC faced a sudden community disconnect with little to no participation due to events that were moved on-line. This disengagement from the community prompted the CEC to adapt its efforts, which began by making telephone calls to community contacts to learn about the immediate needs of Detroit residents. Based on insight from the calls and discussion in meetings with the CURES Community Advisory Board members, the CEC delivered hand sanitizer and face masks to 900 Detroit residents who could not access personal protective equipment. The CEC also developed and distributed 3,000 printed fact sheets in direct response to requests for do-it-yourself disinfectant recipes and frustration with misinformation, conflicting messages, and a lack of reliable and accessible communication resources about COVID-19.<sup>85</sup>

The CEC learned first-hand about the many ways that Detroit residents faced communication inequities because of the pandemic, including the digital disparities, which were particularly alarming. Residents were adversely affected by their environment, as Detroit had

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<sup>81</sup> Sarah Soyeon Oh et al., *Measurement of Digital Literacy Among Older Adults: Systematic Review*, 23 J. OF MED. INTERNET RSCH. (2021); Bonfadelli, *supra* note 87.

<sup>82</sup> Hyunjin Seo et al., *Evidence-based Digital Literacy Class for Low-income African-American Older Adults*, 47 J. OF APPLIED COMMUN RSCH. 130 (2019).

<sup>83</sup> *Id.*; Julie A. Delello & Rochell R. McWhorter, *Reducing the Digital Divide: Connecting Older Adults to iPad Technology*, 36 J. APPLIED GERONTOLOGY 3 (2017); Hsin-Yi Sandy Tsai, Ruth Shillair & Shelia R. Cotten, *Social Support and “Playing Around”: An Examination of How Older Adults Acquire Digital Literacy With Tablet Computers*, 36 J. APPLIED GERONTOLOGY 29 (2017).

<sup>84</sup> Carrie Leach et al., *Engaged Communication of Environmental Health Science: Processes and Outcomes of Urban Academic-Community Partnerships*, 21 APPLIED ENV'T EDUC. & COMMUN 7 (2022).

<sup>85</sup> Carrie Leach, *Covid-19 in Detroit*, CURES (2020),

[https://cures.wayne.edu/outreach/prevention\\_and\\_protection\\_covid-19\\_9\\_1\\_20.pdf](https://cures.wayne.edu/outreach/prevention_and_protection_covid-19_9_1_20.pdf).

one of the lowest internet connectivity rates in the nation.<sup>86</sup> Not only did this lack of connectivity limit residents' ability to access health-related information, but they were also excluded from the benefits of virtual healthcare, social welfare programs, and government aid that was sorely needed during that time.<sup>87</sup> This situation illustrates why broadband internet access is recognized as a "super-determinant" of health. The lack of broadband internet access impedes connecting with relevant health, economic, and social resources.<sup>88</sup> These multi-level forces help to explain why ethnic/minority older adults lag dramatically behind other groups in terms of health outcomes and participation in health research which can help to ameliorate health disparities.<sup>89</sup>

After sharing these concerns at meetings and events with community stakeholders and contacts, the CEC was asked to participate in an existing Wayne State University grant to connect seniors with technology and collaborate in the dissemination of computer devices to older adults in Detroit.<sup>90</sup> To go along with the devices, the team developed educational materials containing information on how to use the device; instructions for securing no and low-cost hot spots and internet service; and, no-cost applications to help older residents connect with others.<sup>91</sup> The materials also included telephone numbers of the CEC team and a support hotline for receiving assistance for using the device, as well as information about coping with stress, accessing employment, and additional information to enhance digital literacy. The CEC distributed materials and computer devices to 1,723 older residents throughout the City of Detroit through local community contacts, including CURES Community Advisory Board members, Matrix Human Services, Urban Development Corp, Hope Village Revitalization, The Village of Oakman Manor, and through faith-based connections and outlets.<sup>92</sup>

Our experience has shown that the most effective method for connecting with and disseminating health information to Detroit residents is in-person, through their social networks, and in locations that they identify. Given the extent of disconnections that Detroit residents are

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<sup>86</sup> Equitable Internet Initiative, *supra* note 9.

<sup>87</sup> Hyunwoo Yoon et al., *Older Adults' Internet Use for Health Information: Digital Divide by Race/Ethnicity and Socioeconomic Status*, 39 J. APPLIED GERONTOLOGY 105 (2020); Bauerly et al., *supra* note 49, Eruchalu et al., *supra* note 49, Heidi Hodge et al., *Using Internet Technologies in Rural Communities to Access Services: The Views of Older People and Service Providers*, 54 J. RURAL STUDIES 469 (2017).

<sup>88</sup> Bauerly et al., *supra* note 49; Benda et al., *supra* note 49.

<sup>89</sup> Khanijahani et al., *supra* note 3.

<sup>90</sup> Wayne State to provide tech-enabled health care for Detroit's low-income seniors, <https://today.wayne.edu/news/2020/11/18/wayne-state-to-provide-tech-enabled-health-care-for-detroits-low-income-seniors-40963> [https://perma.cc/T6Z3-EVNB].

<sup>91</sup> CHERYL DEEP, *Getting to Know Your Chromebook*, (2021), [https://cures.wayne.edu/outreach/3\\_2021\\_chromebook\\_made\\_easier\\_.pdf](https://cures.wayne.edu/outreach/3_2021_chromebook_made_easier_.pdf).

<sup>92</sup> *New Paths for Community Connection in Detroit*, NAT'L INST. ENV'T HEALTH SCI. (Oct. 1, 2021), <https://www.niehs.nih.gov/research/supported/centers/core/spotlight/connect-detroit/index.cfm> [https://perma.cc/RH3Z-Z43Y].

facing, the need for solutions to address these communication inequities are essential and continuing.<sup>93</sup>

Some users viewed the devices distributed by CEC as a lifeline with the potential to facilitate critical connections to healthcare services, social support networks—and more. Despite the purported benefits, we have yet to glean specific data, such as if device recipients were able to connect to the internet, the necessary skills to utilize the devices, and the impact of utilization. To explore these matters, we held a series of virtual listening sessions with the community stakeholders we had collaborated with to distribute the devices. We also began a literature scan to inform the development of a survey that we would distribute to Detroit seniors to understand the needs and challenges of using computer devices. Our review highlighted the need for diversified perspectives in the research, especially among older and minority users, and pointed to the stark gap in studies situated in urban, poorly connected areas such as Detroit.

The resulting evaluation is intended to ascertain computer recipients' knowledge of technological devices; barriers and facilitating factors that influence device use; and, relevant gaps in education, training, and support. We also consider the contextual forces that drive or inhibit utilization so healthcare professionals can implement processes that foster inclusivity and increase virtual connections with older African-American adults.

The survey has undergone review by Wayne State University's Institutional Review Board and our next step is to pilot and refine the instrument *with* older adults and our community contacts in a participatory process before disseminating more broadly. Community engagement with research holds promise for addressing health inequities through centering the voices and knowledge of historically marginalized people and communities of color in a translational process that leads to more information rich environments.<sup>94</sup> Our team sought funding to support data collection and the subsequent development of senior-centered tools and strategies to increase virtual connections among our urban African-American elders and was awarded \$250,000 in 2023 by the Patient Centered Outcomes Research Institute. The project will be conducted through partnership with several CURES community advisory board members and focused on building the capacity for older African-Americans in Detroit to be involved in research through the provision of technology (e.g., computers, hot spots, etc.) and by developing senior-friendly tools aimed at building their research and digital literacy skills.

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<sup>93</sup> *Strategic Plan 2022-2023: Detroit Health Department*, CITY OF DET. HEALTH DEPT. (2022), <https://detroitmi.gov/sites/detroitmi.localhost/files/2022-10/DHD-2022-23%20Strategic%20Plan-External-Draft-V5%282%29.pdf>.

<sup>94</sup> CHANDRA L. FORD ET AL., RACISM: SCIENCE & TOOLS FOR THE PUBLIC HEALTH PROFESSIONAL (2019).

### *B. Recent Federal and State Programs Addressing Connectivity Gaps*

With the passage of the Infrastructure Investment and Jobs Act (The Act) on November 15, 2021, the federal government is now investing \$65 billion to make broadband more affordable to lower income households and to improve broadband access in rural areas.<sup>95</sup> Michigan will receive at least \$100 million to invest in internet improvements in unserved and underserved areas, including areas with low bandwidth speed or no internet access.<sup>96</sup> The Act also allocates \$14.2 billion for the Affordable Connectivity Fund, which provides a \$30 discount for internet service for qualifying households.<sup>97</sup> The Affordable Connectivity Fund began as a response to COVID-19 when Congress established the Emergency Broadband Benefit Program to assist low-income families with their internet bills.<sup>98</sup> The Act also includes \$2.75 billion for the Digital Equity Act to assist states in developing plans to ensure equal access to the internet for historically underserved communities.<sup>99</sup> The funds may be used to make the internet more accessible through digital literacy programs for seniors or Wi-Fi hotspots in schools or government buildings.

Furthermore, the Act requires the Federal Communication Commission (FCC) to adopt rules to confront “digital redlining” where Internet Service Providers (ISPs) have declined to build or offer broadband services in areas that they have deemed unprofitable.<sup>100</sup> The FCC rules will define what equal access to broadband entails, and prevent discrimination based on income, race, ethnicity, color, religion, or national origin. The FCC rules will also establish what actions by an ISP would constitute discrimination.<sup>101</sup>

At the state level, Michigan recently passed House Bill No. 4288 which created a statewide grant program geared towards ISPs to increase

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<sup>95</sup> Digital Equity Act of 2021, Pub. L. No. 117-58, 135 Stat. 1182 (codified at 47 U.S.C. § 1701). See also Jessica Jennings & Sarah Gimont, *Congress Passes Historic Bipartisan Infrastructure Investment and Jobs Act*, NAT'L ASS'N CNTYS (Nov. 15, 2021), <https://www.naco.org/blog/congress-passes-historic-bipartisan-infrastructure-investment-and-jobs-act> [https://perma.cc/RZQ2-EGQ7].

<sup>96</sup> *The Infrastructure Investment and Jobs Act will Deliver for Michigan*, THE WHITE HOUSE (2020), [https://www.whitehouse.gov/wp-content/uploads/2021/08/MICHIGAN\\_Infrastructure-Investment-and-Jobs-Act-State-Fact-Sheet.pdf](https://www.whitehouse.gov/wp-content/uploads/2021/08/MICHIGAN_Infrastructure-Investment-and-Jobs-Act-State-Fact-Sheet.pdf).

<sup>97</sup> *Affordable Connectivity Program*, FED. COMM'NS COMM'N (2022), <https://www.fcc.gov/affordable-connectivity-program> [https://perma.cc/TED9-86QP]; See also *Affordable Connectivity Program*, UNIVERSAL SERV. ADMIN. CO. (2021), <https://www.usac.org/about/affordable-connectivity-program/> [https://perma.cc/BV5Y-CUU5].

<sup>98</sup> Emergency Broadband Benefit, FED. COMM'NS COMM'N, <https://www.fcc.gov/broadbandbenefit> [https://perma.cc/N7GJ-567R].

<sup>99</sup> *Digital Equity Act Programs*, BROADBANDUSA, <https://broadbandusa.ntia.doc.gov/funding-programs/digital-equity-act-programs> [https://perma.cc/7FF9-Q2E9] (last visited Feb. 11, 2023).

<sup>100</sup> Task Force to Prevent Digital Discrimination, FED. COMM'NS COMM'N (2022), <https://www.fcc.gov/task-force-prevent-digital-discrimination> [https://perma.cc/7DQP-BH28].

<sup>101</sup> Notice of Proposed Rulemaking, (Dec. 22, 2022), <https://docs.fcc.gov/public/attachments/FCC-22-98A1.pdf>.

broadband access across the state.<sup>102</sup> The grant program may only award funds to applicants for projects that will solely be targeting “underserved” communities.<sup>103</sup>

Detroit has announced a pilot connectivity program in one neighborhood, where it will connect 2,000 homes in Hope Village to high-speed broadband.<sup>104</sup> The Hope Village neighborhood will serve as the testing ground for an ambitious ten-year plan to build a citywide fiber-optic internet network.<sup>105</sup> This development is significant as it is estimated that between 42% and 59% of homes in Hope Village have no broadband internet connection.<sup>106</sup>

### C. Community-Based Connectivity Solutions

The Harvard Business Review evaluated four health care facilities whose patients were majority-elderly to ascertain how they dealt with COVID-19 challenges.<sup>107</sup> The research suggests that one of the most direct ways for elderly patients to participate in telehealth is to have hospitals where patients are being treated provide patients with an appropriate device to use for their treatment.<sup>108</sup> Often, these devices are tablets, which are sometimes more accessible for seniors to navigate than computers. In response to findings from a telephone outreach program for Detroit seniors, the Healthier Black Elders Center established a “Party Line” to address social isolation among older Detroit residents by increasing their capacity to connect through virtual platforms such as Zoom.<sup>109</sup> The

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<sup>102</sup> Nicole Klisch, *Michigan High-Speed Internet Office Launches \$238M Grant Program to Support Underserved Areas*, MICH.GOV (Jan. 19, 2023), <https://www.michigan.gov/leo/news/2023/01/19/mihi-office-launches-238m-grant-program> [https://perma.cc/74GF-Q6R2]; See also *Broadband Initiative*, MICH. ECON. DEV. CORP., <https://www.michiganbusiness.org/broadband/> [https://perma.cc/5W9Z-4VJ3].

<sup>103</sup> *Id.*

<sup>104</sup> Malachi Barrett, *Residents in ‘forgotten’ Hope Village skeptical of city’s broadband plan*, BRIDGE DET. (Apr. 21, 2022), <http://www.bridgedetroit.com/residents-in-forgotten-hope-village-skeptical-of-citys-broadband-plan/> [https://perma.cc/DF63-HY9G] (last visited Feb. 11, 2023); See also *Digital Access Infrastructure Overview*, <https://detroitmi.gov/sites/detroitmi.localhost/files/2022-04/Condensed%20Public%20Facing%20Document.pdf>.

<sup>105</sup> Malachi Barrett, *Detroit’s Plan for Equal Internet Access Starts with Hope Village*, BRIDGE DET. (Apr. 14, 2022), <http://www.bridgedetroit.com/detroits-plan-for-equal-internet-access-starts-with-hope-village/> [https://perma.cc/Q32S-6MA7] (last visited Feb. 11, 2023).

<sup>106</sup> Barrett, *supra* note 109.

<sup>107</sup> Umar Ikram et al., *4 Strategies to Make Telehealth Work for Elderly Patients*, HARVARD BUS. REVIEW (Nov. 24 2020), <https://hbr.org/2020/11/4-strategies-to-make-telehealth-work-for-elderly-patients> (last visited Feb. 11, 2023).

<sup>108</sup> *Id.* See also Health Resources & Services Administration, *Telehealth and Older Patients*, <https://telehealth.hhs.gov/providers/health-equity-in-telehealth/telehealth-and-older-patients> [https://perma.cc/8RGL-4SWN]. “While many older Americans are comfortable accessing telehealth services, others may benefit from step-by-step guidance or support from a family member or caregiver to help them initiate and participate in a telehealth visit.”

<sup>109</sup> The Party Line: Linking older Detroiters in a virtual world (2021), <https://socialwork.wayne.edu/news/the-party-line-linking-older-detroiters-in-a-virtual-world-44027> [https://perma.cc/2P5B-TY3P].

practices initiated by these organizations are aimed to bridge the digital gap between Detroit's seniors and healthcare system and resources.

Some solutions to the technical divide and social isolation can be found in community-led wireless distribution programs, such as the Equitable Internet Initiative (EII).<sup>110</sup> The EII found that Detroit has a “median household income of \$26,249, 38% of homes have no Internet connection, 63% of low-income homes have no in-home broadband, and 70% of school-age children have no Internet access at home.”<sup>111</sup> The mission of the EII is to increase both access to and literacy of internet technologies within Detroit communities while simultaneously empowering residents to serve as “Digital Stewards” to their neighbors. Community-led, grassroots organizations can identify the most pressing needs for internet access, as with most other issues of inequality. Like many grassroots groups, however, organizations such as the EII have limited funding resources. There are many other organizations and programs working to bridge the digital divide, including the National Digital Inclusion Alliance which is piloting a public access network for seniors.<sup>112</sup> Additionally, the Detroit Community Technology Project is also working on Community Tech Hubs that provide Detroiters free and quality internet connectivity.<sup>113</sup>

#### CONCLUSION

Telehealth systems have extended the provision of health services and information to older adults across the country. In cities like Detroit, however, many elders have not had access to telehealth's benefits. Inadequate network infrastructure has prevented many low-income elders from accessing these services. However, infrastructure improvements and access to devices and training can assist seniors in acquiring affordable healthcare services in the future. Given the excessive and chronic health and environmental burdens, and myriad reasons that older African-American Detroit residents are disconnected from their social networks and health care, the need for investment in their digital literacy capacity is crucial. Developing a digital literacy strategy created with and for older Detroit residents will improve the relevance and uptake and lead to improved health outcomes.

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<sup>110</sup> *Equitable Internet Initiative (EII)*, NEWCC, <https://mynewcc.org/our-work/equitable-internet-initiative-eii/> (last visited Feb. 11, 2023).

<sup>111</sup> *Equitable Internet Initiative*, *supra* note 9.

<sup>112</sup> *Policy*, NDIA, <https://www.digitalinclusion.org/policy/>.

<sup>113</sup> *Equitable Internet Initiative*, DET. CMTY. TECH. PROJECT, <https://detroitcommunitytech.org/?q=eii> [HTTPS://PERMA.CC/QCW6-DWWB].