

Marginalized Young People Health-care Access and Affordability

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## Background

Marginalized Young People (MYP) have a suite of challenges across domestic and international regions with access to health-care systems. Use of digital mental health (DMH) combined with an information communication technology system (ICT) is a solution to help underserved populations gain information channels and improve access to correct health service information (Schuller, Hunter, Figueroa, and Aguilera, 2019). Critical cohorts of MYP needing policy attention include homeless, rural, race, and LGBTQ. Robards, Kang, Usherwood, and Sanci (2017) performed a systematic review of MYP across 1,796 articles and developed themes relating to an "...ability to recognize and understand health issues" including a professionals' knowledge, service environments, and ability to assess one's health. The following reviews government implementation of MYP digital only health operations, how MYP could be impacted, and what policy decisions and resources support this approach.

## Type of Access

Utilitarian's would agree a government's distribution of health public service information can help create the greatest good for the greatest number of people by fostering enabling values so citizens can pursue and develop societal interest (Schultz, 2006, pg. 7). Globally, MYP's internet connect varies and the best accept type to widely distribute health information to MYPs is *broadband and 5G Internet* technologies. According to Warschauer (2002), while "those who are already marginalized will have fewer opportunities to access and use computers and the Internet" and broadband's expansion may permanently reverse this viewpoint (p. 4). Broadband expansion includes Tesla's *Starlink* satellite system, the 2016 Federal Communication Commission Lifeline phone program, and the world's installation of 5G speak to the technology's mushrooming connectivity significance across people (FCC, 2020; Qualcomm, 2020). Deontologism encapsulates broadband's expansion as morally right by making information access widely available to enable values, such as education and health, while respecting and promoting individual rights across countries and cultures.

Internet access is key to understanding the structure surrounding individuals, communities, and governments ability to symbiotically share information. Device ownership,

such as smartphones and computers, help establish communication networks enabling socio-technical inclusion or exclusion (Warschauer, 2002). A casual notion of the digital divide is lacking access to the Internet “harms life chances” (ibid, p. 4) but 5G’s expansion will explode the *internet of things* (IOT) and marginalized groups will have greater access point potential through realized interconnections. Broadband’s expansion promotes social inclusion by enabling individuals with decreased economic resources to access such information leading to employment, education, and other civil activities. Warschauer (2002), argues a key to social inclusion is reducing access barriers, i.e. service or device, and promoting literacy. Fostering social inclusion with broadband is a network externality that helps MYP connect to health information and peers. Finally, broadband enables MYP digital inclusion via active participation and exercise of one’s agency and self-expression (Bach, Shaffer, and Wolfson, 2013).

Schuller’s, et al. (2019) assessment of MYP populations in the U.S. found whites and Latinx individuals own smartphones at the same rate of 77% while homeless own smartphones at 58% and cellphones at 93%. LGBTQ cellphone ownership is comparable with white heterosexual peers. Rural populations, which account for about 20% U.S. population, are challenged with broadband access at 61%, versus urban peers at 96%, and smartphone ownership at 65%. This high ownership supports government’s development of MYP mobile applications and websites targeting MYP health-care tools. However, a government’s type of access to citizens cannot be limited to software. Bach, et al. (2013) discuss how digital equality is a complex function of technology access, computer literacy and government fostering a knowledge economy. The authors develop a Digital Human Capital framework binding these elements together stressing the expansion of digital literacy will result in meaningful content for marginalized groups through their active digital participation learning personal healthcare. Government’s use of digital only would benefit from Schueller, et al. (2019) finding encouraging health information available in different languages, tailoring cultural message, and adopting 5 digital development principals found successful with mental health applications: design for public health impact, add value for all users, test products, acknowledge disruption, and anticipate variability (p. 247). Across platforms customization requires a cost analysis to continuously manage variable costs versus tangible and intangible benefits.

While deontologists applaud a software public good application based on “adding value for all users,” utilitarianists would struggle with LGBTQs language customization. Translating

software remains expensive and policy should focus reaching across the widest people tree regardless of ethical framework. In making decisions to foster enabling values policy work should highlight methods with potential to reduce MYP social grievances and increase health equality.

### **How New Digital Access Might Disrupt Current Practices**

There are various sociocultural and sociodemographic factors to consider with government supporting a digital only MYP health information network. There are studies available to assess disruption as MYP “experience barriers in addition to those common to all young people” (Robards, et al., 2017, p. 365). MYP are intersectional cohorts and blend like ordinary citizens but homeless MYP don’t usually intersect with rural MYP. Current practices to reach and support contrasting cohorts could decrease health equity if government emphasize developing a digital only neglecting success methods learned from brick and mortar footprint outreach.

Robards, et al, (2017) condensed 1,796 studies to 68 and one of the earliest MYP longitudinal studies was by Solorio, et al. (2006) who found the most common barrier for health information for homeless MYP was knowing *where to go*. From 2006 to 2015 it is interesting to see barriers change to: lack of health awareness, social proximity to centers, disrespect, and mistrust. These factors suggest “deciding to access health services is affected by service knowledge and attitudes towards help-seeking” (Robards, et al, 2017, p. 376). MYP can be empowered by digital technology in their community but if increased digital inclusion leads youth to discover negative, or falsely negative, reviews youth may never approach a doorstep. Bach, et al. (2013) propose Digital Human Capital fails to address misleading information and its adverse influence on reduced literacy populations. Disruption may also result from digital institution mistrust versus positive outcomes achieved by local shelter in-person connections.

Another disruption to current practices focuses on marginalized rural populations. According to Schueller et al. (2019), rural MYP have a variety of text and data applications to inform on depression and other mental illnesses. Interestingly, the work found intense data consumption demands dramatically reduces learning healthy behaviors further highlighting population literacy as a barrier. This contrasts to Robards et al. (2017) identification ‘face-to-

face' value in rural communities across the U.S and Australia which may have overshadowed this effect.

Artificial intelligence (AI) disruption occurs when applications generate unsuspecting outcomes, such as when machine learning algorithms incorrectly classify outcomes. Considering MYP are more likely to have literacy deficiencies, supporting AI systems may be likely to substitute for critical thinking development which negatively influences individual cognitive and social practices. Another complication from AI is positioning the tool as a standard for illness diagnosis such as depression or ADHD. MYP experience many challenges and AI diagnostic tools are not capable of interpreting all factors influencing a person. Policy should consider some means of ensuring a qualified professional is available to assist with diagnosis and treatment. Governments, like business, seek automation and “for marginalized populations biases may result in incorrect predictions or withholding of resources” (Schueller, et al., 2019, p. 252). Endeavoring to promote agnostic services, while more expensive, may best be able to serve MYP outliers requiring complex services.

### **Policy Decisions and Resources**

Prior to policy decision a robust analysis across MYP research and theory would collate prediction consequences associated with a digital only operation connecting MYP to health information (Garcia-Murillo, 2020, [ii]). A key starting point for policy decision supporting MYP digital health access involves performing a cost-benefit analysis to determine development, operational, recurring, nonrecurring, and tangible and intangible benefits. Once the scope of technology, hardware, and personnel are understood, government policy funding can be substantiated. Literacy is significant factor in framing MYP policy and Warschauer (2002) encourages it. While there are known structural deficiencies with rural populations having 61% broadband, this policy does not seek universal service, rather it piggybacks elements of a universal scope on other program's broadband expansion whereby improving access of information to MYPs (Garcia-Murillo, 2020, [iii]).

Other policy resources would be helpful in targeting MYPs who are not able to afford smartphones. Computers tend to cost two to three times more than smartphones and are valued less as substitutes by those not employed as information workers. Smartphones have more

financing options and affordability is critical to this policy's success. If policy structure can validate MYP status perhaps funding smartphones for rural and homeless MYP would expand health equity for these heavily burdened cohorts.

### **Conclusion**

According to the United Nations (2019) there is approximately 1.2 billion youth worldwide increasing to 1.4 billion by 2065. This dramatic increase necessitates MYP access to health-care systems and supporting policy building sustainability measurements to report and index health advancements and costs avoided.

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