

# Addressing eHealth Literacy and the Digital Divide: Access, Affordability and Awareness

by Grace Begany

## Information Policy

### EDITOR'S SUMMARY

The Internet is beyond the reach of about six percent of Americans, limiting their access to general information and communications and to health information in particular. Eight of 10 Internet users look online for a range of health-related information to understand medical conditions and treatments, access care providers and learn about insurance. Consumers, the federal government, the business community and access providers all have a stake in eHealth information access. The government has promoted awareness and understanding of health issues and provided funding for broadband and wireless telecommunications infrastructure. Businesses rely on consumers to make use of health information, and several major telecom firms have provided hardware and training to enable eHealth endeavors. Efforts must address basic Internet connectivity and user costs and awareness, obstacles that undermine availability of important health information to consumers.

### KEYWORDS

health information  
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In a society with seemingly ubiquitous Internet connectivity, where online use is now commonplace, it is striking that a large number of American citizens still has very limited or no access to information and communication technologies. According to a report by the Federal Communications Commission (FCC) [1, 2], released on August 21, 2012, approximately 19 million Americans – about six percent of the population – still lack access to broadband Internet services. This disparity primarily occurs in rural, tribal and some urban areas among ethnic minorities in low-income households. These citizens, left out of digital society, are largely unable to access information important to their daily lives, including health-related information [3, 4, 5].

Next to accessing email and using a search engine, looking for health information regarding specific diseases, medical problems, treatments, procedures, doctors, medical facilities, health insurance, food safety, drug safety, environmental health hazards, pregnancy, childbirth and more remains one of the most important activities for Internet users. With eight-out-of-10 Internet users, or 59% of all U.S. adults [6], looking online for health information, this activity ranks as the third most popular online pursuit. People who lack access are missing out on this common online activity as well as an important opportunity to develop their eHealth literacy. Using emerging information and communication technologies to access just-in-time information to improve their health and lives, or the health and lives of their loved ones, is unfortunately out of reach [3, 5].

An examination of approaches and initiatives intended to address these issues is the focus of this white paper. Suggested directions for further action regarding access, affordability and awareness are proposed from a consumer advocacy perspective.

## Stakeholders concur that a digitally connected and literate population is a critical necessity to the nation's social, cultural and economic success and its ability to survive and compete in the 21st century.

### Stakeholder Perspectives and Initiatives

In general, wide agreement exists in the United States regarding the need to further close the digital divide and increase access to and awareness of online information, particularly health information, for all citizens. Among the stakeholders in this effort are individual citizens, consumer advocacy groups, public access providers, government and the business community. Stakeholders concur that a digitally connected and literate population is a critical necessity to the nation's social, cultural and economic success and its ability to survive and compete in the 21st century [5, 7, 8].

#### U.S. Government

A key stakeholder in the effort to increase eHealth literacy and bridge the digital divide is the U.S. government. The federal government plays a leading role in securing resources and meeting citizens' needs for equal access to critical technology infrastructures and information, particularly information that can benefit health and lives [7]. The government has demonstrated clear leadership in the effort to provide broader access to eHealth resources via several recent key initiatives. For example, the Healthy People 2020 initiative aims to improve the health of all citizens by increasing public awareness and understanding of health, disease and disability, as well as identifying nationwide health improvement priorities [9]. To improve access, the government's American Recovery and Reinvestment Act of 2009 provided \$7.2 billion in funds for broadband and wireless infrastructure projects [10]. Additionally, as mandated by the

Recovery Act, the government unveiled the National Broadband Plan in 2010. The plan's goal is to improve broadband Internet access nationwide to guarantee a more innovative and competitive nation and economy [11].

#### Business Community

Businesses, such as hardware manufacturers, software developers, Internet service providers, telecommunications companies and content providers depend upon consumers' use of their services; hence, they are another key stakeholder regarding issues of the digital divide and information access. Notably, a number of organizations such as Hewlett-Packard, 3Com, Intel and Microsoft have made substantial contributions, primarily through public-private partnerships, toward closing the gaps. For example, in 2003, Microsoft and Gateway contributed \$250 million to install more than 47,000 computers and train librarians in nearly 11,000 libraries across the country. Additionally, since 1997, Cisco Systems has been donating equipment, products and training services to high schools and community centers via its Cisco Networking Academy [7].

Given that searching for health information ranks as the third most popular online pursuit, such initiatives by the business community are certain to have a clear impact on health information consumption.

#### Consumer Advocacy Response

Although government, business community and other initiatives have yielded admirable gains in further ensuring that citizens are able to fully participate in and reap the many benefits of our digital society, barriers still remain. The ability to connect to and access important digital resources and information, including health information, is essential for all American citizens. To this end, further work must be pursued with a focus on three key issues: access, affordability and awareness.

#### Access

As noted, great strides have been made on the part of government, businesses and others toward the goal of providing all citizens with access to online resources and information, including health information; however,

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the United States has fallen behind other developed nations in this regard [12]. With 19 million Americans still lacking broadband access, it is evident that more work is needed to increase broadband adoption and permanently close the digital divide. The FCC's own 2012 report concludes that broadband is not yet being deployed in a reasonable and timely fashion [1, 2]. As such, the federal government must continue to press Recovery Act and other government funding recipients to complete critical broadband projects and deliver upon goals as mandated.

### Affordability

Another major obstacle to the adoption of Internet-ready information and communication technologies is the high price for service. In fact, the FCC estimates that approximately 100 million Americans have not subscribed to broadband services due to affordability barriers [13]. Relative to their counterparts in other developed countries, American consumers pay more – up to double the amount – for their Internet service [12]. This disparity is unsustainable, given the government's goal to provide full connectivity for every citizen. Therefore, initiatives like the H.R. 1685: Broadband Adoption Act of 2013, a proposed amendment to the Communications Act of 1934 that includes provisions for making broadband more affordable, must be strongly supported and quickly moved through the legislative process. Introduced on April 23, 2013, by Congresswoman Doris Matsui (D-CA), the Broadband Adoption Act, if enacted, would provide discounts on in-home broadband Internet service for low-income Americans in rural and urban areas, allowing equal access to affordable services. A key component of this bill is the provision that costs for the service discounts would be absorbed by the service

providers and not the taxpayers [13, 14]. Placing the cost burden on providers, as well as some of the social responsibility for bridging the affordability aspect of the digital divide, is an appropriate course of action. Additionally, the bill recommends providing a preference to participating broadband service providers who include digital literacy programs as part of their offerings. Such programs could conceivably include crucial eHealth literacy programs among others. The bill, currently stalled in the House Energy and Commerce Subcommittee on Communications and Technology [14], needs to be reviewed, pushed forward for a vote and hopefully soon enacted.

### Awareness

As problems of access and affordability are addressed, the issue of eHealth literacy can be tackled more effectively. Only then will programs promoting eHealth literacy become available to a wider group of citizens who will be able to take full advantage of digital technologies to fulfill their health information needs, leading to improvements in their health and lives. Key initiatives such as Healthy People 2020 could then engage in broader, more aggressive marketing efforts to connect with citizens previously out of reach.

### Conclusion: A Three-Pronged Approach

Increased connectivity along with better health information resources is an important and critical goal, especially given the large number of people unable to participate in our heavily digital world. A combination of initiatives focused on access, affordability and awareness would offer the broadest possible approach to establishing greater eHealth literacy among U.S. citizens and further closing the digital divide. ■

### Resources Mentioned in the Article

- [1] Federal Communications Commission. (August 2012). *Eighth Broadband Progress Report FCC 12-90*. Washington, D.C. The Commission. Retrieved from [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-12-90A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-12-90A1.pdf)
- [2] Federal Communications Commission. (August 2012). *Eighth Broadband Progress Report*. FCC.gov. Retrieved from [www.fcc.gov/reports/eighth-broadband-progress-report](http://www.fcc.gov/reports/eighth-broadband-progress-report)
- [3] Fox, Susanna. (September 1, 2011). *Report: Health Topics*. Pew Internet & American Life Project. Retrieved from <http://pewinternet.org/Reports/2011/HealthTopics.aspx>

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Resources Mentioned in the Article, cont.

- [4] Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services. (June 2006). *Expanding the Reach and Impact of Consumer eHealth Tools*. Washington, DC: The Department. Retrieved from [www.health.gov/communication/ehealth/ehealthtools/pdf/ehealthreport.pdf](http://www.health.gov/communication/ehealth/ehealthtools/pdf/ehealthreport.pdf)
- [5] Neter, E., & Brainin, E. (2012) eHealth literacy: Extending the digital divide to the realm of health information. *Journal of Medical Internet Research* 14(1), e19. doi:10.2196/jmir.1619
- [6] Fox, S., & Duggan, M. (January 15, 2013). *Health online 2013*. Pew Research Internet Project. Retrieved from [www.pewinternet.org/Reports/2013/Health-online.aspx](http://www.pewinternet.org/Reports/2013/Health-online.aspx)
- [7] Choemprayong, S. (2006). Closing digital divides: The United States' policies. *Libri*, 56(4), 201-212. Retrieved from [www.librijournal.org/pdf/2006-4pp201-212.pdf](http://www.librijournal.org/pdf/2006-4pp201-212.pdf)
- [8] Epstein, D., Nisbet, E. C., & Gillespie, T. (2011). Who's responsible for the digital divide? Public perceptions and policy implications. *The Information Society*, 27(2), 92-104. doi: 10.1080/01972243.2011.548695
- [9] *HealthyPeople.gov*: [www.healthypeople.gov/2020/default.aspx](http://www.healthypeople.gov/2020/default.aspx)
- [10] Recovery.gov. *Where is the money going?* Retrieved from [www.recovery.gov/arra/Transparency/Pages/WhereIsTheMoneyGoing2.aspx](http://www.recovery.gov/arra/Transparency/Pages/WhereIsTheMoneyGoing2.aspx)
- [11] Federal Communications Commission. (2010). *National Broadband Plan: Connecting America*. Retrieved from [www.broadband.gov/](http://www.broadband.gov/)
- [12] Boone, Jeb. (August 23, 2012). U.S. lags behind in broadband access [web log post]. *Global Post*. Retrieved from [www.globalpost.com/dispatches/globalpost-blogs/the-grid/us-lags-behind-broadband-internet-access](http://www.globalpost.com/dispatches/globalpost-blogs/the-grid/us-lags-behind-broadband-internet-access)
- [13] Matsui, Waxman, Eschoo introduce legislation to expand lifeline for universal broadband adoption [press release]. (April 23, 2013). Retrieved from <http://matsui.house.gov/press-releases/matsui-waxman-eshoo-introduce-legislation-to-expand-lifeline-for-universal-broadband-adoption/>
- [14] H.R. 1685—113th Congress: Broadband Adoption Act of 2013. *www.GovTrack.us*. Retrieved from [www.govtrack.us/congress/bills/113/hr1685#overview](http://www.govtrack.us/congress/bills/113/hr1685#overview)