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Introduction to Volume 16 Issue 2

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The COVID-19 pandemic highlighted how important it is to have access to understandable public health information. In a media climate with lots of mixed messages, people needed information from reputable sources, in formats that were accessible, and in language that was understandable. The pandemic highlighted ongoing inequities in access to information for people with disabilities. As businesses and schools went online, some services and supports became harder to access, and the inaccessibility of websites and electronic documents became more problematic. People with disabilities have the right to effective communication that is at least as effective as that offered to people without disabilities, but the implementation of that right has often been inconsistent.

The goal of this special issue was to define public health information access issues and to share best practices, lessons learned, and successes in the development and dissemination of public health information in general, and specifically as it relates to ensuring that individuals with disabilities receive accurate and actionable information during pandemics. Much of the work reported here focuses on a communications initiative funded by the National Foundation for the Centers for Disease Control and Prevention (CDC Foundation). The project focused on four groups: individuals who are blind and use braille, individuals who are deaf or hard of hearing and use ASL, people with limited literacy skills who benefit from simplified text, and those with mobility limitations. Led by a team at Georgia Tech's Center for Inclusive Design and Innovation (CIDI), with partners from the Center for Literacy and Disability Studies at UNC-Chapel Hill, DeafLink, and the American Association on Health and Disability (AAHD),

the project aimed to improve COVID-19 communications and disseminate best practices to ensure that communications are accessible for people with disabilities in future emergency or disaster situations.

This volume includes two articles in **Voices from Academia**. First, in their article *Minimizing the Complexity of Public Health Documents: Making COVID-19 Documents Accessible to Individuals who Read Below the Third-Grade Level*, Sofia Benson-Goldberg, Lori Geist, Ben Satterfield, and Karen Erickson describe the conduct of a rapid review of the research literature on text complexity and plain language. Findings from the rapid review guided the development of a set of Minimal Text Complexity (MTC) Guidelines. These guidelines address whole text issues (e.g., format, semantics) as well as sentence and word-level issues. The MTC Guidelines differ quite a bit from traditional plain language recommendations. The authors then applied the guidelines to 27 CDC documents about COVID-19 to develop simple, easy-to-read documents addressing a range of important topics like wearing a mask, cleaning and disinfecting, and testing. The resulting simplified documents had fewer words, shorter sentences, and were easier to read based on readability metrics. This important work addresses an often-ignored access issue related to reading literacy.

In a second article, Ben Satterfield and Zerrin Ondin describe *A Needs Assessment of COVID-19 Guidance for Adults with Developmental Disabilities*. The authors conducted a rapid assessment to determine whether current CDC guidance materials were readable and understandable by adults with intellectual and developmental disabilities (I/DD). Specifically, the authors interviewed adults with I/DD about their experience with CDC COVID-19 materials as well as their general experiences and information needs related to COVID-19. In addition, adults with I/DD were asked to visit a CDC webpage on face masks and provide their impressions. Finally, the authors conducted group interviews with caregivers of the adults with I/DD. Findings from the rapid assessment indicate that CDC materials were used rarely and were not easily understandable by the adults with I/DD. Adults with I/DD relied more on family and care providers for information, even though most of them had access to devices and internet connections. Findings from this rapid assessment highlight the need for accessible and understandable health information for this audience.

Three articles in this volume are **Voices from Industry**. Sheryl Ballenger's article addresses *Access for Deaf and Hard of Hearing Individuals in Informational and Educational Remote Sessions*. Specifically, she discusses how the pandemic disrupted information access for people who are Deaf or hard of hearing. The rapid move to online, virtual interactions made it difficult for organizations and individuals to access ASL interpretation and captioning services (i.e., Speech-to-Text-Services—STTS). Many platforms added Automatic Speech Recognition (ASR) as an option. Ballenger explores the extent to which ASR provides adequate access to spoken speech by conducting a comparative analysis of the accuracy of ASR produced transcripts to STTS. She found that ASR transcripts are not fully accurate and that, more importantly, they may make errors in ways that reduce meaning, while human STTS may be able to address the intended meaning in a conversation more fully. She concludes that ASR may be appropriate in low stakes, but not high stakes interactions.

K. James Monroe and Valerie Morrison's article, *Creating Accessible Infographics: Describing Scientific Data in Ways Everyone Can Understand*, describes the challenges in textually describing complex images. They review the literature on how people learn from images and the cognitive load associated with image processing and they discuss how text descriptions of images can help not only people who are blind, but others who may have difficulty interpreting complex images. They share their extensive professional experience writing alternative text and demonstrate how their recommendations can be implemented using several example CDC infographics. Their pragmatic, detailed recommendations provide a solid foundation for anyone wishing to improve descriptions of images.

Finally in this section, Norah Sinclair, Sheryl Ballenger, and Maureen Linden's article, *Inclusive Design Thinking for Health Messaging in American Sign Language during the COVID-19 Pandemic: A Case Study Brief*, provides a case study highlighting an inclusive design thinking framework that supported the development of accessible, culturally relevant COVID-19 materials for ASL speakers. Their case study demonstrates how they worked with content experts and ASL interpreters to craft public health guidance that was accurate, easy to understand and appropriately translated to ASL. The authors also conducted a needs assessment to understand challenges related to finding ASL content online. They report several practical suggestions for increasing the visibility of ASL content.

Four articles in this volume are **Voices from the Field**. In their article, *Closing the Information Gap: Making COVID-19 Information Accessible for People with Disabilities*, Sarah Anderson, Alina Flores, Laura Baldwin, Carolyn Phillips, and Jennifer Meunier provide an overview of the CDC Foundation-funded communications initiative that supported the work detailed in many of the articles in this volume. The project began with needs assessment and evaluation of the CDC website for accessibility. It then supported development of essential COVID-19 materials in multiple accessible formats, including braille, American Sign Language (ASL), simplified text, and other alternative formats. Finally, it identified additional gaps in COVID-19 information (e.g., adaptations to face masks for people with various disabilities), conducted a webinar series on these topics, and engaged in extensive dissemination of the products produced. The authors discuss the challenges they experienced in conducting this work within the context of a rapidly changing public health crisis.

In their article *"Include Me": Implementing Inclusive and Accessible Communications in Public Health*, Alina Flores, Jennifer Meunier, and Georgina Peacock report on their experience planning and executing a Public Health Grand Rounds that maximized accessibility and understandability for participants with disabilities, including people with I/DD. Their work highlights the importance of proactively planning for broad access as a part of organizational culture, rather than as a response to a request for accommodation. In addition, they underscore the importance of including people with disabilities in the planning and implementation of educational programs.

Liz Persaud reports on *Building an Effective Model to Disseminate Accessible COVID-19 Guidance*. She describes efforts to ensure that COVID-19 public health materials developed in alternative formats reach the people who need it. This work involved understanding the discrete audiences for the materials and the appropriate methods and channels of dissemination. Persaud details the dissemination methodology

for all audiences and alternative formats developed in the CDC communications initiative. Her work highlights the effort, resources, and planning necessary to ensure that important public health information reaches audiences who need it during a public health crisis.

Finally, Johan Rempel discusses *The Importance of Braille During a Pandemic and Beyond*. Rempel begins with a discussion of the continuing relevance of braille within the context of other technologies (e.g., text-to-speech technologies). He then describes a qualitative study in which individuals who are blind were interviewed about their format preferences for receiving COVID-19 information (i.e., embossed braille, refreshable braille display, text-to-speech). In this small study, all participants wanted the option to have embossed braille, despite having refreshable braille displays. Reasons include increased understanding and retention, reading speed, and ease of use. Rempel's work highlights the need to consider user format preferences when considering the development of alternative formats.

CONCLUSION

The articles in this volume provide a road map for federal and state agencies, nonprofits and educational organizations, and businesses who want to ensure that health information developed and disseminated during a public health crisis is understandable, accessible, and usable by most people, especially those with disabilities. Public health crises, like the COVID-19 pandemic, can stress systems and highlight gaps in information access. Organizations should build accessibility into their organizational culture, so they have developed the skills and mindset to ensure access even when systems are stressed.

DECLARATIONS

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