Knowledge-sharing to enhance global health equity

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ABSTRACT

Knowledge produced by specialized professionals can be shared to promote public understanding and decision-making. During the COVID-19 pandemic, the application, translation, and dissemination of specialized knowledge has informed global policy responses and contributed to new vaccine technologies that protect against disease. However, the pandemic has also highlighted the potential impacts that ineffective knowledge dissemination and misinformation can have on health outcomes, which can further deepen health inequities between groups. Preliminary considerations are suggested for ways to foster a culture of knowledge sharing aimed at promoting global health equity.

KEYWORDS
Knowledge Exchange, Health Equity, Knowledge Sharing

The sharing of specialized knowledge can improve the public's awareness or understanding of technical concepts, processes, or evidence and is often generated by specialized disciplines or professionals. The process, which may be termed as knowledge translation, can be defined as a "dynamic and iterative process that includes synthesis, dissemination, exchange, and ethically-sound application of knowledge." (1) Invariably, the accumulation of this knowledge by key stakeholders and subsequent transfer of knowledge to the general public is a process that will take time. However, in the process of achieving a certain level of expertise, the way that knowledge acquisition by individuals and particular groups can create and deepen pre-existing disparities between us at a fundamental level is a concern that is often overlooked. When parties lack

pertinent information required to carry out critical decisions or when individuals convey information inaccurately, there are concerns regarding how this information, or lack thereof, will fundamentally impact the how stakeholders use such information to guide critical decisions and actions, particularly when these issues are time-sensitive matters. In striving for a society that emphasizes fairness and collaboration, then we must consider how to reduce these barriers through knowledge sharing.

Specialized knowledge can have considerable benefits for society when shared in formats that enable widespread comprehension and active usage. During the past two years of the pandemic, scientific expertise enabled the creation of COVID-19 vaccines that have been estimated to avert thousands of deaths. (2) Specialized expertise has also contributed new insight on the biological and sociocultural impacts of the virus that has helped formulate policy responses and adapt services across a range of industries. In the brink of the current pandemic, to fight the common enemy of COVID-19, it is the practice of knowledge-sharing and communication across borders that led nation-states to devise a global strategy to "flatten the curve." (3)

But when this knowledge is not communicated well, delayed, or ignored in the time of a global crisis, the international response to the current pandemic has its flaws. The pandemic has revealed the dangers of group ignorance and the spread of misinformation that requires concerted, interdisciplinary action. One example that highlights the detrimental effects of miscommunication is the recent development of consumers ingesting drugs not authorized by the Food and Drug Administration (FDA) or Health Canada (HC) (4,5). There has been a rising interest in using Ivermectin, a drug ordinarily used for animals, to treat or prevent COVID-19. Not only is the drug dangerous when taken in large quantities, (6) there is no evidence from clinical trials to support the belief that this drug proves to be effective in fighting the virus. (6) Importantly, the FDA and HC has not approved this medication. (4,5) This is only one example. Over the course of the pandemic, we have seen far more severe examples of the impact of the spread of false and mis-

leading information. Around the globe, there have been countless instances of violence against doctors linked with a reporting of general increase in violence in health care settings including in India (7) and Latin America. (8) Lack of access to accurate information about COVID-19 vaccines, combined with prevailing mistrust against medical professionals, has been linked to vaccine hesitancy and low vaccination rates among certain ethnic groups. (9) Others have highlighted how the lack of data on race, ethnicity, and health conditions in Canada may prevent the generation of evidence needed to adequately understand whether certain groups of people are more prone to disease. (10) In Canada, disparities in health outcomes are further compounded by the lack of health and technological literacy, which remain highly variable across communities in Canada. (11) Worldwide, there is only an estimated 14% who could not read or write as of 2016. (12)

Even when credible and experienced experts create knowledge through research and development and thus involve themselves in the process of knowledge creation and ultimately knowledge-translation, it may be challenging to share with others the information we acquired. Particularly, knowledge sharing may be difficult for those who are not familiar with best practices for communicating complex facts while considering the cultural complexities and nuances that underlie these facts. While doing so may provide a significant benefit, going the extra mile in every case may prove to be costly and mentally taxing. For instance, the implementation of these heightened expectations may be viewed as onerous due to additional demands on time that contribute to increasingly higher rates of burnout at work. (13)

In a wider context, knowledge-sharing raises systemic challenges. Within the academic publishing industry, there are few incentives to establish public communication within the academic community. For instance, the number of peer-reviewed journals that require a plain language summary with submission of a manuscript is fairly limited, although the number is growing. (14) Similarly, some funding agencies, another key player in the academic arena, only require a submission of a "knowledge-sharing plan" for two grants pro-

grams offered by the Canadian Institute for Health Research. (15) Globally, gaps in research training, development and infrastructure remain, particularly for nations already bearing the burden of global infectious diseases. (16) It begs the question then, what is the benefit of highly coded information when only few have ciphers to decrypt them?

One approach to enable us to accomplish equitable access to knowledge-sharing is through a collaborative process. In turn, this may permit us to improve the accurate and efficient use of information. Some emerging models are challenging the way evidence-generation and sharing is done itself, such as participatory research that include knowledge users or living evidence reviews that bridge the evidence-practice gap through real-time updates. While progress towards accessible knowledge-sharing remains to be made, we propose some key considerations based on this precedent as tentative starting points to re-invigorate dialogue on how to engage individuals and organizations who create, hold, and consume knowledge:

1. **Communication training.** Training program curriculums should explore ways to develop communication skills and content delivery in the context of cultural considerations to deliver intended meanings with care and accuracy to different groups. Ideally, these materials should be co-created with people with lived experiences, communication specialists, and those from the creative sector who have implementation experience.

2. **Open-source or access resources.** Journals and funding agencies have a role in easing access to knowledge via support to ensure free access to papers, have transparent reporting requirements in line with established research guidelines, and require end-of-grant dissemination plans.

3. **Development of novel frameworks for data collection and research.** Accelerate and improve the implementation of research by advocating for new approaches to knowledge generation and dissemination itself, such that it is inclusive by design irrespective of disciplinary boundaries.

At the individual level, knowledge-sharing can also be rewarding on its own. In the context of mentoring, sharing and passing of knowledge in a broad spectrum of industries (17-19) is linked to increased awareness of discipline knowledge (20), enhanced career satisfaction (19), and feelings of connectedness to one's peers and self. (17, 18)

From the community perspective, engaging the public in meaningful exchange also provides unique perspectives, which can boost trustworthiness in decision-makers and guide policies. (20) As a health intervention, education and training have shown the potential to lift whole communities out of poverty and provide the momentum needed to make sustained upward trajectories throughout life. (21)

More broadly, knowledge-sharing has the potential to provide other benefits for ourselves and our diverse communities as the transfer of information empowers communities to take action and guides policymakers to make more informed decisions that can lead to improved health outcomes, especially for historically underserved groups such as minority women. Some evidence also suggests that committing resources and other investments to educational attainment for minority women improves maternal health outcomes by increasing their economic opportunities and decision-making power within the home including those related to their own healthcare, which can lead to changes in their fertility practices. (22) These significant benefits further emphasize the critical importance for continued support, funding, and implementation of programs that aim to promote knowledge exchange with the public so that they reflect the perspectives of the very communities in which this knowledge may be disseminated and used.

Because of the global pandemic, many of us have spent the last two years far removed from our loved ones. But we have learned that constructive relationships between communities and other key players, strengthened by the sharing of knowledge and creation of trust, make engagement with our communities not only desirable, but necessary. From these stronger relationships, it is our hope we will seek how knowledge can

unite us and inform decisions that improve the livability and harmony within our communities as we continue to reconsider and reflect on whether our current approach to resolving the global pandemic is effective and importantly, how we can change our course to make access more equitable.

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