



Vaccine Communication Online

Counteracting Misinformation,
Rumors and Lies

Edited by

Tamar Ginossar · Sayyed Fawad Ali Shah
David Weiss



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Introduction

Tamar Ginossar, Sayyed Fawad Ali Shah, and David Weiss

Communicating about Vaccines Online: Understanding and Counteracting Misinformation, Rumors, and Lies focuses on vaccine communication on social media in diverse contexts. It provides empirical reports from a range of theoretical and methodological perspectives by leading international scholars. Our contributors explore a wide range of issues raised by communication spread via online platforms and the reception, resistance, and reproduction of such communication by multiple stakeholders in various contexts to better understand the content, creators and spread of misinformation on such online platforms—and to suggest ways for effectively countering that misinformation.

The idea for this book was formed in 2019, representing our long-standing interest in communication about vaccination, and the realization

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that public health leaders had finally began to turn their attention to this previously under-researched and largely unanswered public health risk. In spring 2020, it became painfully clear that this topic had finally received the world's attention, but no clear pathways were charted on how to address this misinformation. While not providing a full 360-degree review of this complex and evolving topic, in this book we aim to highlight different contexts and processes of misinformation about vaccination, and begin to reflect on lessons learned.

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes coronavirus disease 2019 (COVID-19), is an elusive virus that seemed to hit the world out of nowhere, quickly spreading from China to the rest of the world in early 2020. For most global news audiences, it rapidly turned from a distant international story about a virus that originated in an exotic animal market to a long, stressful, uncertain, and often deadly reality. Although the public health sector had been warning about, and preparing for, a vast, global pandemic for decades, it seems that most of the public, including public health officials, was ill-prepared when the pandemic descended. In addition to shortages in trained medical teams and of basic protection and medical equipment, communication to the public was inconsistent in most countries. This communication even included some false information delivered by prominent public health organizations. For example, prior to April 3, 2020, U.S. public health authorities did not recommend face mask use in public. "The initially limited evidence on asymptomatic transmission and concern about mask shortages for the health care workforce and people caring for patients contributed to that initial decision," reported Feng and their colleagues (2020, p. 434). Some of this misinformation was caused by the ever-changing and uncertain situation, and represented the limited knowledge in the face of this new crisis. However, some of this misinformation, unfortunately, was known to be untrue at the time. The notable example above, in which the public was called to avoid using masks by asymptomatic individuals early in the pandemic arguably demonstrates such failure to communicate evidence-based information, and, when this call was reversed on April 3, 2020 by the Centers for Disease Control, may have further reduced trust in the government.

While the public often felt that they, and their public health leaders, were in uncharted territory, one group was well-prepared for the pandemic, and was able to immediately draw on their well-honed skills in communication. Unfortunately, this group was the very loosely

connected, largely virtual anti-vaccine movement. Our own research (Cruickshank et al., 2021; Ginossar et al., 2022) shows that within a week from the time the pandemic became known to people outside of China, anti-vaccination advocates were already applying their well-designed frameworks to the new virus. After another week, they had largely dropped the falsehood that vaccines cause autism, and focused more on claims about threats to civil rights and to privacy. As the virus continued to spread, so did this influential misinformation from these groups, including disguised efforts by certain governments and organizations, celebrities of different sorts, and individual social media users. With access to social media and available time to members of populations that were now sheltering in place and experiencing social isolation, they were able to spread messages that in the past were largely disseminated interpersonally (Shah et al., 2019; Shah et al., 2021).

THE NATURE OF THE PROBLEM

Vaccine hesitancy, defined as the disinclination or refusal to vaccinate when vaccines are available (“Ten Threats to Global Health,” 2020, para. 28), is as old as the practice of vaccination itself (See also the chapter by Hoffman et al. in this volume.) However, whereas in the past vaccine hesitancy was considered a fringe phenomenon, recent global outbreaks of vaccine-preventable diseases such as measles and diphtheria indicate both newly imminent risks and, at the same time, heightened awareness about the need for a paradigm shift in order to achieve herd immunity worldwide. These concerns increased in the wake of the COVID-19 pandemic and the potential of vaccinations to reduce the enormous global morbidity and mortality of the virus that causes the disease.

Exposure to online misinformation—which includes falsehoods, rumors, lies, conspiracy theories, and other types of distortions aimed at increasing doubts about the safety and efficacy of vaccination—is related to reduced likelihood to vaccinate (Larson, 2020). Perhaps equally troubling, the *propagation* of such vaccine-related misinformation is not only related to but actually accelerates concurrent anti-social processes including the erosion of trust in traditional media, state, and health institutions and the rise of political populism (Zucker, 2020). Alongside responses to the COVID-19 pandemic itself, concerns have been raised about an increase in vaccine hesitancy and—in certain locations—access that might contribute to the global decrease in routine childhood vaccination rates.