

May 2, 2022

Vice Admiral Vivek Murthy, MD  
Surgeon General  
U.S. Department of Health and Human Services  
200 Independence Avenue SW  
Washington, DC 20201

Re: Impact of Health Misinformation in the Digital Information Environment in the United States  
Throughout the COVID-19 Pandemic Request for Information

Dear Surgeon General Murthy:

On behalf of our physician and medical student members, the American Medical Association (AMA) appreciates the opportunity to provide comments regarding the impacts of COVID-19 misinformation throughout the course of our current pandemic. As you well know, the fight against rampant misinformation and disinformation about COVID-19, its origins, its treatment, and its prevention has been a significant uphill battle fraught with detrimental impacts on physicians, patients, our health care system, and our public health community. We appreciate the Surgeon General's continued attention to this serious issue and hope meaningful action can be taken to limit distribution of misinformation and disinformation regarding COVID-19.

### *COVID-19 Vaccines*

Nowhere has misinformation and disinformation regarding COVID-19 been more prevalent and impactful than COVID-19 vaccines. From the initial application for authorization to the present day, inaccurate and intentionally false information regarding safe and effective vaccines—their development, manufacturing, ingredients, and, most importantly, risks and side effects—has been disseminated far and wide on social media outlets and through certain media channels. Recent studies by the Kaiser Family Foundation found that more than three-quarters of U.S. adults either believe or are not sure about at least one of eight false statements about the COVID-19 pandemic or COVID-19 vaccines.<sup>1</sup> The same study found one-third believe or are unsure whether deaths due to the COVID-19 vaccine are being intentionally hidden by the government, and about three in ten believe or are unsure whether COVID-19 vaccines have been shown to cause infertility. In addition, between a fifth and a quarter of the public surveyed believe or are unsure whether the vaccines can cause COVID-19 (25 percent), contain a microchip (24 percent), or can change DNA (21 percent).

The most unfortunate result of this has been significant vaccine hesitancy and refusal among certain communities and within certain demographics, ultimately resulting in continued higher rates of severe

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<sup>1</sup> Kaiser Family Foundation, KFF COVID-19 Vaccine Monitor: Media and Misinformation. Accessed March 7, 2022. <https://www.kff.org/coronavirus-covid-19/poll-finding/kff-covid-19-vaccine-monitor-media-and-misinformation/>.

illness, hospitalization, and death due to COVID-19 in these populations—outcomes largely preventable with vaccination. In addition, we are growing increasingly concerned that COVID-19 vaccine hesitancy may persist beyond the pandemic and have a ripple effect on other public health vaccine efforts. The World Health Organization has recently reported an 80 percent increase in measles cases globally, and vaccine hesitancy moving forward will compound this.<sup>2</sup>

### *Unapproved and Ineffective Treatments for COVID-19*

While the most significant pandemic misinformation and disinformation campaigns have centered around vaccines, a significant amount of COVID-19 misinformation and disinformation has been spread around COVID-19 therapeutics and treatments. This has been primarily seen in disinformation regarding unproven medications such as hydroxychloroquine, ivermectin, and others. Not only have these treatments been proven ineffective in the treatment of COVID-19,<sup>3,4,5</sup> they pose significant risk of harm to patients when taken outside of the direction of a physician in larger doses than recommended. This behavior then placed additional strain on the already fragile supply chain, causing harm to non-COVID patients, such as those with systemic lupus erythematosus who overnight could no longer find hydroxychloroquine, a critical medicine for managing their condition.

Disinformation campaigns aimed at discouraging vaccination and encouraging use of unproven medications for both prevention and treatment of COVID-19 have led to a number of cases of direct patient harm. In many cases, disinformation spread on social media causes individuals to seek medications outside of the care of their physician. This was especially prevalent with ivermectin, which is readily available without a prescription as a veterinary product for deworming livestock. In the first eight months of 2021 alone, the National Poison Data System reported an increase of over 150 percent in the number of calls made to poison control centers, with states such as Mississippi issuing alerts about the surge of calls from individuals overdosing on ivermectin. Health care providers also saw significant issues with demands from patients for both ivermectin and hydroxychloroquine. In some instances, demands were so significant that patients, and their families involved the legal system, were seeking court action to order hospitals and physicians to administer the ineffective treatments.

### *Impacts of COVID-19 Mis- and Disinformation*

As discussed above, COVID-19 misinformation and disinformation has resulted in significant detrimental impacts to the health of the U.S. population and has contributed to prolonging the pandemic. All research shows that rates of COVID-19 infection and mortality resulting from COVID-19 were highest among unvaccinated individuals and lowest among those vaccinated with the primary series and booster doses.<sup>6</sup>

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<sup>2</sup> Cable News Network. Perfect storm' of disease ahead with vaccines delayed and measles cases up, WHO and UNICEF say. Accessed April 29, 2022 <https://www.cnn.com/2022/04/27/health/who-unicef-measles/index.html>

<sup>3</sup> National Institutes of Health. COVID-19 Treatment Guidelines, Clinical Data for Ivermectin. Accessed April 26, 2022. <https://www.covid19treatmentguidelines.nih.gov/tables/ivermectin-data/>.

<sup>4</sup> Lim SCL, Hor CP, Tay KH, et al. Efficacy of Ivermectin Treatment on Disease Progression Among Adults With Mild to Moderate COVID-19 and Comorbidities: The I-TECH Randomized Clinical Trial. *JAMA Intern Med.* 2022;182(4):426–435. doi:10.1001/jamainternmed.2022.0189.

<sup>5</sup> National Institutes of Health. COVID-19 Treatment Guidelines, Clinical Data for Chloroquine or Hydroxychloroquine. Accessed April 26, 2022. <https://www.covid19treatmentguidelines.nih.gov/tables/chloroquine-or-hydroxychloroquine-and-or-azithromycin-data/>.

<sup>6</sup> Johnson AG, Amin AB, Ali AR, et al. COVID-19 Incidence and Death Rates Among Unvaccinated and Fully Vaccinated Adults with and Without Booster Doses During Periods of Delta and Omicron Variant Emergence —

During the Delta and the most recent Omicron waves, severe illness, hospitalization, and death from COVID-19 were overwhelmingly in unvaccinated populations. Given that studies show that vaccine misinformation was directly linked to vaccine hesitancy and refusal, it follows that misinformation and disinformation regarding COVID-19 vaccines were directly responsible for higher rates of infection and higher mortality from the disease had vaccine uptake been universal.<sup>7</sup> Direct patient harms were also seen in those pursuing unapproved medications for both prevention and treatment of COVID-19, those rejecting the notion that COVID-19 posed a serious threat to their health and wellbeing, and those rejecting the use of masks and social distance to prevent the spread of COVID-19.

In addition to the obvious patient harms that have resulted from misinformation and disinformation, essential workers faced significant, ongoing harms throughout the pandemic. Health care workers have been continuously overburdened by unrelenting (and, in 2021, largely preventable) waves of COVID-19 infection that overwhelmed hospitals and posed a direct threat of infection to all staff in these facilities. Health care workers and public health officials were also frequently the subject to targeted threats and harassment by COVID-19 “deniers” and anti-vaccine advocates. In many cases, these threats were violent. Other essential workers, such as those in the service industry charged with enforcing mask and vaccine mandates have been similarly harassed and threatened, sometimes violently. COVID-19 misinformation and disinformation campaigns have also contributed to a significant decline in the public trust of physicians and other health care workers, public health interventions such as vaccines, public health officials, scientists and scientific institutions, and government. Given that an individual’s trust in their health care professionals may directly correlate to more positive health outcomes, erosion of trust due to misinformation and disinformation campaigns will likely result in long-term consequences to health and wellbeing of the general public and will likely diminish our ability to engage in meaningful pandemic prevention activities for the foreseeable future.

COVID-19 misinformation and disinformation has also resulted in disproportionate impacts on different communities. Many of the most common COVID-19 disinformation campaigns require the reader to distrust institutions such as the federal government or the pharmaceutical industry. For minoritized communities that have historically been failed by these same institutions, the initial belief that those in power may be untrustworthy is not a large leap. These beliefs may be intergenerational and are reinforced by the multitude of injustices faced by minoritized communities in healthcare, making the impact of COVID-19 misinformation and disinformation felt strongly and resulting in potential for greater patient harms.

### *Combating COVID-19 Misinformation and Disinformation*

Combating the rapid spread of COVID-19 misinformation and disinformation has proved to be exceptionally difficult and without easy solutions. The unregulated nature of social media allows for fertile ground for widespread dissemination of false and misleading information and without cooperation from those managing the platforms, it is allowed to spread unchecked. While social media platforms eventually took on a larger responsibility for policing COVID-19 misinformation and disinformation, the move was late and has not proven comprehensive enough to stop the spread of harmful information. Combating health disinformation should include consideration of steps that can be taken to better manage this type of content on social media platforms. Of interest, in November 2021, our House of Delegates

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25 U.S. Jurisdictions, April 4–December 25, 2021. *MMWR Morb Mortal Wkly Rep* 2022;71:132–138.

DOI: [https://www.cdc.gov/mmwr/volumes/71/wr/mm7104e2.htm?s\\_cid=mm7104e2\\_w](https://www.cdc.gov/mmwr/volumes/71/wr/mm7104e2.htm?s_cid=mm7104e2_w).

<sup>7</sup> Pierri, F., Perry, B.L., DeVerna, M.R. et al. Online misinformation is linked to early COVID-19 vaccination hesitancy and refusal. *Sci Rep* 12, 5966 (2022). <https://doi.org/10.1038/s41598-022-10070-w>.

Vice Admiral Vivek Murthy, MD

May 2, 2022

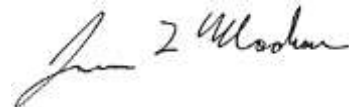
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adopted a policy, “Addressing Public Health Disinformation Disseminated by Health Professionals,” which will include steps that the AMA will take to address disinformation. It is expected that this report will be received, debated, and voted on by the House of Delegates at our June 2022 meeting.

The rapid onset of the novel SARS-CoV-2 virus predictably, yet unfortunately, resulted in an environment of rapidly changing knowledge and guidance. While the medical, public health, and scientific communities expect this to be true during a rapidly developing pandemic, the general public had a more difficult time understanding the frequent changes to recommendations and guidance. These rapid and frequent updates created an environment ripe for mistrust and spread of misleading information within certain segments of the population. To help combat this mistrust and the spread of misinformation and disinformation, government and public health officials, as well as the medical and scientific communities and members of the media should consider how best to publicly communicate and disseminate information and develop guidelines within a rapidly changing environment. Further, strategies such as increasing the public’s resilience to misinformation and disinformation by promoting health and digital literacy through multiple sources including schools, community organizations, social media, news media, and others allows for consumers to choose responsible sources of information and increases their awareness of disinformation tactics and approaches.<sup>8</sup>

As we continue to fight the threat of COVID-19 and as we look towards future pandemic preparedness, we must be continually mindful of the serious threat of health misinformation and disinformation. Misinformation and disinformation have caused serious harm to millions of American from COVID-19 and will likely continue to threaten our ability to adequately protect Americans from new and ongoing public health threats if not kept in check. The AMA looks forward to continuing to work with you to find meaningful approaches to addressing this critical issue. To discuss further, please contact Shannon Curtis, AMA Assistant Director of Congressional Affairs, at [Shannon.Curtis@ama-assn.org](mailto:Shannon.Curtis@ama-assn.org).

Sincerely,

A handwritten signature in black ink, appearing to read "James L. Madara". The signature is written in a cursive style with a large initial "J" and "M".

James L. Madara, MD

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<sup>8</sup> Johns Hopkins Center for Health Security. National Priorities to Combat Misinformation and Disinformation for COVID-19 and Future Public Health Threats: A Call for a National Strategy. March 2021. Available at [210322-misinformation.pdf \(centerforhealthsecurity.org\)](https://www.centerforhealthsecurity.org/210322-misinformation.pdf). Accessed April 28, 2022.