Communication and Education
Summary

U.S. public health communications must be redesigned to reduce infection risk and regain public trust in the fast-moving, deeply polarized battle to promote the best health outcomes for Americans. A public health strategy must ensure truthful and effective government communications that promote healthy behavior and strengthen trust in government and its public health institutions such as the Centers for Disease Control (CDC). To achieve this, and other critical coordination goals, the White House should appoint a Deputy Assistant to the President for National Security Affairs and Biosecurity. This expert and office would ensure the development of a sufficient number of science-based and effective communications and behavioral interventions. Improvements in communication infrastructure, educational programs, and awareness of misinformation are also required for Americans to have the skills, values, trust, and knowledge necessary to navigate future infectious disease outbreaks.

Shifting and Subpar Communications

Leadership and public health communications during the Covid pandemic have been disjointed and unclear. For example, President Trump dissolved the National Security Council Directorate for Biosecurity, which would have helped to coordinate communication and other aspects of the pandemic, delegated communication responsibilities to the states, and disseminated information from the White House. Meanwhile, other sources, especially social and for-profit partisan media, which have been at times sources of foreign disinformation campaigns, frequently misinformed the public, particularly about vaccine efficacy and safety.

Another demonstration of poor public health communications has been the lack of a standardized federal government protocol of government communications to the public, such as departmental or White House briefings tailored to different levels of public health alarm. Periods of daily briefings have alternated with periods lacking systematic, regularly scheduled, predictable communication. The messages communicated by government officials have had limitations as well, although many were difficult to anticipate. The CDC has well-articulated manuals for Crisis and Emergency Risk
Communication (CERC) with the following principles: “be first,” “be right,” “be credible,” “express empathy,” “promote action,” and “show respect.” Unfortunately, these principles, which this chapter endorses, have not always been followed in communications during the Covid pandemic, confusing a public that was not prepared for the shifting advice from government officials, pundits, and news outlets. Left unclear were the boundaries between the knowns and unknowns of the virus, as well as the meanings of basic terminology like what “safe” means when applied to schools or “mild” when describing Omicron. There was a lack of clear guidance from responsible governmental entities directed at local institutions, ranging from overwhelmed health departments to under-resourced school systems, as well as conflicts in the recommendations given to neighboring jurisdictions.

Compounding this complex situation has been the role of legacy media, social networks of communications, social media platforms, and politicization of the pandemic. In the current wave of the pandemic, the unvaccinated are 23 times more likely than the fully vaccinated to be admitted to a hospital. Gallup finds that “Americans’ willingness to get a COVID-19 vaccine varies significantly by underlying partisan and ideological positioning,” with Republicans less likely to be vaccinated and more likely to be hospitalized than Democrats. Partisan differences have also been apparent in opinions on masking, school openings, vaccination mandates, and holiday celebrations during the pandemic. Possibly, when faced with multiple and often conflicting advice about Covid, Americans might have been left to choose whichever messenger seemed most credible or whichever recommendation best fit with their worldviews.

These partisan differences are partly due to exposure to different media outlets, including some embracing unfounded Covid stances and misinforming the public about vaccines, bogus medicines, and infectious disease.

Despite the resilience of many ethnic minorities, the Covid pandemic has exposed and amplified health disparities across racial and ethnic groups. Black populations, for example, are 2.5 times more likely to be hospitalized and 1.7 more likely to die of Covid than White populations. American Indian and Alaska Natives are 3.2 times more likely...

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times more likely to be hospitalized and 2.2 more likely to die of Covid than White Americans. Hispanics are 2.4 times more likely to be hospitalized and 1.9 more likely to die of Covid than White individuals. These inequalities go hand in hand with other physical health disparities (e.g., diabetes and Chronic Obstructive Pulmonary Disease) and striking differences in Covid vaccination uptake among both adults and children. Therefore, a public health communication strategy to control infectious diseases should consider how to mitigate these inequalities and

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develop diverse social networks to communicate about vaccination and other precautions early and effectively.

Finally, the Covid pandemic and subsequent division has coincided with a breakdown of what were traditionally held as U.S. community norms and collective values, such as the ideas that some sacrifice for the betterment of one’s community is preferable to a focus entirely on individual benefit, health is better than disease, and health equity is better than health disparities. Some of these phenomena have deep roots in American society, which makes addressing them complex. Nevertheless, it is important for policymakers, private sector entities, and civil society leaders to promote educational efforts and other reforms that support community public health and health equity goals.

**Improving Government Coordination of Communication**

Coordinating public communication during a global pandemic is uniquely challenging. A successful strategy must leverage existing systems for coordination between local, state, and federal communicators and be present during both emergencies and periods of normalcy.

Decisions and planning are necessary to ensure that information flows easily and bidirectionally among government institutions and communities, that information on testing, treatment, and prevention of Covid is centralized and up-to-date, and that consumer guidelines are standardized and science-based. When it comes to coordination of communications, a Joint Information and Communication Center should oversee the sharing of data about infectious diseases. Information dashboards integrating all services relevant to infectious diseases such as vaccination and testing need to be streamlined and better coordinated to better orient the public. Additionally, the FDA and other relevant agencies must standardize information about infectious disease testing to ensure proper interpretation of results. Vaccine Adverse Event Reporting System (VAERS) terminology (e.g., adverse event) and its interpretation in the community should be reviewed periodically. Next, government officials should create an office or mechanism to test and store all communications (e.g., Public Service Announcements and information about testing sites) to ensure efficacy and the ability to analyze their impact by triangulating with real-time surveillance and survey data. Finally, the federal government must establish an infrastructure of effective channels for dissemination of public health messages. For example, an infrastructure of message sources (e.g., communicators and community leaders) and channels (e.g., social networks and social media platforms) needs to be put in place. For example, states still need support to build...
a strong communication infrastructure. Many county health departments lack the most basic infrastructure, such as social media accounts and a network of followers that could improve the speed and distribution of public health messages. Health departments also lack personnel to deploy communication efforts and the expertise and technology to improve their messages.

Federal leaders recognize many of these needs, as reflected in the discussion draft of the U.S. Senate’s PREVENT Pandemics Act. The Act would, among other efforts, establish a Public Health Information and Communication Advisory Committee to support the HHS Secretary’s communications with the public, as well as invest in both cross-agency and federal-local collaboration.

Establishing a Deputy Assistant to the President for Biosecurity (DAP-B)

National pandemic policy coordination and prevention efforts, including communications, should be managed by a new Deputy Assistant to the President for Biosecurity. This office would have a series of critical responsibilities to help coordinate response to the current pandemic, as well as to prepare for future variants or other biological threats.

In the event of a national security threat like a pandemic or other national biosecurity emergency, the Deputy Assistant to the President for Biosecurity would be the public facing federal official of a unified government response for all policy decisions. Among other standing working groups chaired by the Deputy Assistant to the President for Biosecurity should be one on public communication. As the next normal for this pandemic arrives, the deputy assistant should augment White House coordination with federal and state health officials. This working group, which should be at the assistant secretary level federally and the state health commissioner level (through regional state task forces), will ensure a successful cross-agency, multi-state biosecurity leadership group that works together regularly on strategy, budgeting, and preparation for rapid response with tabletop and field exercises.

The new Deputy Assistant to the President for Biosecurity should report to the National Security Advisor. This budget-neutral improvement would absorb the role and office of the current NSC Senior Director for Global Health Security and Biodefense. The Deputy Assistant to the President for Biosecurity should provide relevant budget guidance through an Office of Management Deputy Associate Director with cross-subcommittee budget authority over the biosecurity portfolio.
Establishing a Joint Information Center

Before another dangerous Covid variant or another biosecurity threat emerges, the deputy assistant to the president should create an entity to coordinate public communications between local, state, and federal communicators and support public health communications. In the event of another national security threat like a pandemic or another national biosecurity emergency, this Joint Information Center (JIC) would manage all communications across federal agencies and advise across state, local, and tribal public health agencies on the most effective evidence-based public health communication strategies. The JIC should work with private sector firms, communication specialists, and trusted local community networks to build, test, and store public health communications such as PSAs and social media messaging, to deploy the messages with the most potential to benefit the community. The JIC should also be a meeting place for the best messages and best local communicators and community leaders. Channels should include traditional media, social media platforms, and in-person networks. The JIC would be able to help states, counties, municipalities, and tribes build strong communication infrastructure including communication personnel, social media accounts, and a network of followers that may improve the speed and distribution of public health messages in diverse communities.

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Improving Government Communication

Improving government communications is also necessary. A plan of regular federal health communication during health crises should ensure predictable and optimal schedules and integration of key stakeholders to increase community buy-in. A set of guidelines for the creation and testing of health communication programs and clear nomenclatures for risks and mitigation measures will increase the efficacy of public health communications and maximize positive outcomes. No single message content or source works for all populations, implying that messages might be regularly tested for efficacy among target populations. Finally, the United States needs to invest in public health communication research innovation and instruction, with mechanisms that can generate communication programs fast to address public health concerns in a timely fashion.

The sources of public health communications also need to be carefully considered. As a Wellcome trust survey demonstrates, “No matter how exciting the treatment, how clever the delivery method, or how robust the science, there will be no impact unless the local community is open to it.” Recent surveys have shown that Americans trust their own doctors and nurses more than public health officials, and they trust people in their “cohort” above those who are not. Therefore, trusted messengers should be engaged, including doctors, nurses, physician’s assistants, and pharmacists. The credibility of public health officials should be monitored and protected to ensure they can have an impact when communicating information to the public. Likewise, the JIC should plan across agencies to help deliver infectious disease and messaging training that enables care providers to effectively communicate these messages to their patients.

The channels of government communications deserve attention as well. Contemporary public health strategies must operate in a micro-media, multi-platform environment. The right platforms (e.g., paid ads on partisan television news, Facebook interventions, and Instagram, TikTok, Twitter, or Reddit posts) vary over time and for different populations.
There are CDC guidelines for the use of social media in health promotion, and there is ample experience using influencers and social media in HIV. Similarly, methods to develop interventions by using machine learning methods are being tested in HIV and could be used for other infections as well. Finally, the federal government should support training of new generations of health reporters in scientific, medical, social, and policy topics. Foundations and private-sector leaders (e.g., Knight Fellows) should support this training by sponsoring public health fellowships, scholarships, and programs for diverse public health reporters.

Furthermore, the Covid-19 pandemic has seen an “infodemic” of harmful anti-science messaging. This disinformation is regularly amplified by adversarial nations like Russia, China, Iran, and other profiteers using social media and partisan traditional media channels. Beyond the obvious public health implications of causing “confusion and risk-taking behaviors that can harm health,” these foreign efforts have taken advantage of a public health emergency to weaken “the international credibility and international cohesion of the United States and its allies and partners.” The DAP-B should oversee efforts to catalogue, reveal, and respond to public health disinformation efforts. The DAP-B should also chair a working group focused on foreign amplified public health disinformation. This group should coordinate extant U.S. government efforts and include the Department of State Global Engagement Center, Office of the Undersecretary of Defense for Intelligence, the CDC, the Surgeon General, CISA, and the Directorate of National Intelligence to include the Digital Directorate of Information (DNI). Finally, the DAP-B should work with the National Science Foundation (NSF) and Director of National Intelligence (DNI) to establish a public-private Health Information Integrity Partnership to catalogue organized public health disinformation efforts. These public-private efforts should be modeled after the work of the “Election Integrity Project” and “The Virality Project.”

The social media platform companies headquartered in the United States have profound reach and must continue to improve as partners in public health. The DAP-B should support and expand the mission of CISA to work with these social media platforms to greatly improve their efforts to address and remove misinformation. CISA should regularly present validated reports of the misinformation amplified on social media platforms to the platforms themselves. In no way should this replace the responsibility the social media platforms have to police their own content, but CISA will now be empowered with an auditable tool to study social media platforms’ efforts to reduce dangerous disinformation. Members of the new misinformation working group should regularly report on their work to Congress in open session. Likewise, CISA should report to Congress on American social media businesses’ efforts to police health related misinformation. Efforts led by the DAP-B to address the clear and present disinformation threat in public health will be an important salient against the broader threat of adversarial nations amplifying divisive disinformation on powerful social media and traditional media platforms.

Improving Education to Increase Social Trust, Values, and General Capacities

Another key goal to ensure long-term adherence to infectious disease prevention measures among Americans is to educate citizens in the trust, knowledge, motivation, and skills that support public health measures. These include the ability to think critically about scientific topics, knowledge about infectious diseases and pandemics, concern with public health, and understanding of the ethical issues surrounding infectious diseases, including the need for vaccination requirements. These capacities need to be transmitted to children and adolescents, as well as the adult public and health professionals. Addressing social health disparities and truly building equity in health outcomes must involve educational efforts to reduce racism and increase trust in public health measures like vaccination among minority communities. Future outreach efforts to combat hesitancy and misinformation can involve educating trusted community voices and having them deliver the message with medical professionals.97

Addressing social health disparities must involve efforts to reduce racism and increase trust in public health measures.

Improving Documentation, Monitoring, and Accountability for Communication Goals

Another important goal is to document, monitor, and examine the achievement of all communication and education goals. These processes should include monitoring and communicating health inequalities, establishing a repository of best practices in government communication about infectious disease, having standards for streamlined clearance without political interference, and ensuring that the CDC receives expert advice on communication about infectious disease. Finally, urging the media to prevent harmful content and maintain these measures permanently is necessary as well.

Communication and Education

Strategic Goals

1. Improve government coordination of communication.

   a. Establish the role of Deputy Assistant to the President for Biosecurity and working groups on public communication chaired by this deputy assistant, to include a foreign amplified public health misinformation working group.

   b. Create a Joint Information Center to build and strengthen protocols to ensure effective public health communication and real-time centralized Covid information dashboards; identify a governmental office to create, evaluate, and warehouse health communications and interventions (e.g., delivered by the CDC, FDA, and HHS, as well as state and local governments); and maintain a permanent directory of diverse public health communicators.

   c. Establish community networks of agencies (e.g., religious and political institutions) and media channels for dissemination of public health messages, expand the communication infrastructure of health departments, and increase broadband penetration and access in all areas of the country to promote health equity.

   d. Direct the DAP-B to work with the NSF and DNI to establish a “Health Information Integrity Partnership” (modeled after the Election Integrity Partnership), as a new public, private, and academic consortium to monitor and educate the public about health disinformation efforts. Ask HIIP to regularly report findings to Congress.

   e. Empower the Cybersecurity & Infrastructure Agency (CISA) to regularly present U.S. social media platforms with validated reports of foreign amplified misinformation that they are promulgating. CISA should then audit the performance of these platforms to address and remove these communications. CISA should regularly report on these firms’ performance to Congress, in open session.

2. Improve government communication to control infectious diseases.

   a. Create a regular federal health communication plan for health crises to garner community support to prevent infectious disease.

   b. Create guidelines for the creation and scientific testing of health communication programs for all Americans.

   c. Instruct the FDA and other relevant agencies to develop clear, simple consumer guidelines and ensure proper interpretation of those and VAERS terminology (e.g., adverse event) by the public.

   d. Create a clear nomenclature for risks and mitigation measures, including infographics and color coding that are evidence–based and rapidly tested and vetted for clarity and understanding through community consultation.

   e. Fund centers of excellence and grants to fund innovative, ambitious, and fast-moving research and instruction on health communication and intervention.

3. Improve Education to Increase Social Trust, Values, and General Capacities in Support of Public Health.

   a. Incentivize the review and expansion of annual K-12 health education to equip children with the trust, values (e.g., depoliticization of health and health equity), knowledge, motivation, and skills that support infectious disease prevention.

   b. Promote K-12 training on ethical issues surrounding public health (e.g., effective mitigation measures and vaccine mandates), identification of unbiased sources of information, and critical thinking.

   c. Create grant programs that train K-12 students and community members to navigate the health system, seek health services, and respond actively to neglect, mistreatment, and discrimination within health institutions.
d. Create grants to update the education curricula of diverse health personnel to support prevention of infectious disease, including vaccination.

e. Create grants to build capacity to eliminate all forms of discrimination in the educational and health care systems, as well as dashboards that disaggregate patient outcomes and satisfaction across populations.

4. Improve Documentation, Monitoring, and Accountability for Communication Goals.

a. Monitor and report on health inequities within educational, social, and political institutions to increase public accountability systems and support values that promote social wellbeing and health equity in infectious diseases.

b. Create a clearinghouse of best practices in government communication in infectious diseases.

c. Establish standards for streamlined clearance of health messages without political interference.

d. Establish an independent advisory council to the CDC that includes public health, behavioral, social, and communication science and practice experts.

e. Urge legacy media and social media platforms to design mechanisms to detect, deflect, and deny the posting of harmful and false advice that hurts public health. Ask that they regularly monitor and report on these processes. Support Congressional efforts to consider how to address dangerous foreign misinformation in new regulations for media, including social media platforms.