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COVID-19 COMMUNICATIONS: PROMOTING PREVENTION MEASURES AND VACCINE CONFIDENCE

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OVERVIEW

The National Foundation for Infectious Diseases (NFID) convened a multidisciplinary group of experts at a virtual roundtable in January 2021 to share research, insights, and best practices for improving and harmonizing communication to the public about the evolving COVID-19 pandemic and the importance of following evidence-based public health prevention measures. A complete list of participating organizations is included on page 16.

The Centers for Disease Control and Prevention (CDC) currently recommends the following evidence-based public health measures to protect individuals from COVID-19:

- Wear a mask that covers the nose and mouth
- Stay at least 6 feet apart from others who do not live with you
- Avoid crowds and poorly ventilated spaces
- Wash your hands often with soap and water
- Cover coughs and sneezes
- Stay home, especially when sick
- Get vaccinated as soon as you are eligible

This report summarizes key information discussed during the roundtable and presents a scalable communications framework with strategies and messaging to help leaders across many sectors including business, education, employer, workforce, and government, ensure that their communications foster positive social norms that encourage the public to protect themselves, their families, and their communities from COVID-19 by following CDC guidance.

NFID MISSION AND VISION

Founded in 1973, the National Foundation for Infectious Diseases (NFID) is a non-profit 501(c)(3) organization dedicated to educating the public and healthcare professionals about the burden, causes, prevention, diagnosis, and treatment of infectious diseases across the lifespan.

As a leader in infectious disease education, NFID collaborates with government, academia, and a wide range of healthcare and other organizations to achieve the vision of healthier lives through effective prevention and treatment of infectious diseases.

MEETING HEALTH AND SOCIAL CHALLENGES ASSOCIATED WITH COVID-19

The COVID-19 pandemic has had a devastating impact on all aspects of life in the US and around the world. Since the World Health Organization (WHO) declared a global health emergency in January 2020, there have been more than 114 million COVID-19 cases and 2.5 million deaths worldwide as of March 1, 2021, with more than 28 million cases and 500,000 deaths in the US.¹

In treating COVID-19, healthcare professionals, hospitals, and health systems have been stretched to their limits. Businesses, schools, and state and local governments are struggling with tracking cases, understanding and following evolving testing and quarantining protocols, and deciding when and how to open and close physical locations. This leaves the general public struggling with economic hardship, educational disruptions, isolation, and anxiety, while also worrying about how to avoid the risk of infection. Controlling the spread of COVID-19 requires widespread public uptake of recommended prevention measures (masks and social distancing), as well as a willingness to get vaccinated. Unfortunately, significant gaps exist among certain populations due to personal beliefs, community norms, institutional distrust, and practical barriers—which public health professionals cannot overcome alone.

Addressing these challenges requires tailored and cohesive communication across sectors that builds trust in public health guidelines and motivates action among all. The purpose of this report is to provide a framework, based on the best available current thinking and resources, to support a wide range of stakeholders as they develop and evolve specific communication plans.

PUBLIC PERCEPTIONS AND ACTIONS ON COVID-19 PREVENTION MEASURES

By definition, a pandemic is the worldwide spread of a new disease. In this environment, new scientific discoveries and evolving public health recommendations based on emerging knowledge should not only be expected but welcomed. However, individuals and communities have been overwhelmed by changing and mixed messages from public health and political leaders, as well as evolving recommendations and state-by-state variances in public health responses.

These perceptions are compounded by the ease and speed with which public health misinformation, especially about vaccines, spreads. As COVID-19 vaccines are being rolled out across the nation, the perception of a rushed approval process intensifies existing vaccine hesitancy, leading many to question the safety and effectiveness of new vaccines.

CURRENT PUBLIC UPTAKE OF PREVENTION GUIDELINES

Overall, in the US, most say they are following public health recommendations. The Kaiser Family Foundation Health Tracking Poll² indicates a substantial increase in consistent mask wearing from 52 percent in May 2020 to 73 percent in December 2020. While increases over that period were seen across all groups, there are some demographic differences in adherence. Women, those living in urban areas, and non-Hispanic Black and Hispanic adults are more likely than men, those living in rural areas, and non-Hispanic White adults to wear a protective mask every or most of the time they are outside of the home.

The findings are consistent across other prevention measures. Similar to masking, 70 percent of US adults overall say they can continue to follow social distancing guidelines for more than six months or until a vaccine is widely available.² It is critical to maintain the social norms of mask wearing and social distancing, and to encourage those who are not adhering to do so until enough people are vaccinated and until scientists learn more, including how well COVID-19 vaccines stop people from spreading the disease.

KEY CHALLENGES TO ADHERENCE

There are a variety of reasons why individuals choose not to follow recommended prevention measures. For some, there may be a lack of understanding regarding the risk and severity of COVID-19 as well as the benefits of infection prevention measures. Some believe false information regarding recommended behaviors.



For example, the Kaiser Family Foundation Health Tracking Poll conducted in December 2020 found that 21 percent of the public incorrectly believe that masks can be harmful to their health. This poll also found that those who view wearing a mask as a personal choice rather than a part of everyone's responsibility are less likely to report consistent mask wearing, indicating that personal values are a factor in adherence to public guidelines.

Even among individuals who want to adhere to recommended measures, there may be challenges. Individuals may not be aware of current guidelines or understand how to properly follow them. Unclear, changing, and variable guidelines cause confusion among the public and plant seeds for growth of misinformation. Income may also be a significant barrier to acting on recommendations. Individuals with lower income are less likely to have flexible work schedules, the ability to work and learn from home, or sufficient space to maintain distance from those who are sick. Addressing these challenges requires policy and systems change, which cannot be addressed by communication and are beyond the scope of this report. But acknowledging these challenges can make COVID-19 messaging more empathetic, more credible, and more effective.

"Trusting in science means tolerating uncertainty. Science is well-supported knowledge, but especially in a pandemic, there will be uncertainty. Knowledge and science will change."

-Cristina Bicchieri, PhD University of Pennsylvania

STRATEGIES TO IMPROVE ADHERENCE

The first step in improving adherence to prevention measures is providing clear and consistent guidelines on recommended actions. The guidelines should include explanations on how these measures help protect against COVID-19 as well as practical tips on how to implement them in different scenarios. Staying home is not always possible; therefore, individuals need information and tools to help them make smart decisions that minimize COVID-19 risk when it is necessary to be in community settings or they choose to gather with friends and family.

However, education alone is not enough to change behavior among those who have misconceptions about COVID-19 risk and mitigation or those whose values undermine adherence to institutional guidelines. Addressing misinformation, aligning recommended measures with values of the target audience, and using emotional appeals–especially by community influencers and trusted messengers outside of public health and government–can be effective in encouraging adherence.

In addition, the PsyCorona Study³, which studies predictors of infection prevention behaviors globally, found that addressing individual perceptions of what others are actually doing ("descriptive norms") and which behaviors others typically approve or disapprove of ("injunctive norms") can increase compliance. This means that communicating that most people are complying and that most people believe that compliance is positive can motivate individuals to follow guidelines.

While this is currently true-the majority of individuals in the US do follow and support recommended prevention measures-social norms may vary in specific communities of identity or geography. In cases where guidelines are not being followed by the majority, it is critical to engage influencers and trusted messengers to model and encourage recommended behaviors as an important part of controlling the pandemic; for example, through respected community leaders, large employers, and schools. In these cases, it is more effective to highlight those that are following recommended behaviors than to point disapprovingly to noncompliance.

COVID-19 VACCINE ACCEPTANCE

Currently, three COVID-19 vaccines are available for use in the US under Emergency Use Authorization (EUA) from the US Food and Drug Administration (FDA):

- Pfizer-BioNTech
- Moderna
- Janssen

To meet the urgent need for vaccines while ensuring safety, all standard steps and requirements in the vaccine development process were implemented on an accelerated timeline. These vaccines have demonstrated clear and compelling efficacy in large, welldesigned phase 3 clinical trials and there has been careful evaluation of their quality and safety.

Both FDA and CDC are monitoring vaccine safety during the rollout (and beyond) to rapidly detect any rare vaccine safety issues. The most common reactions to date have been mild to moderate including sore arm, fatigue, headache, and low-grade fever that lasts one or two days. There have been some allergic reactions (some leading to anaphylaxis), which are not unexpected and can be managed with increased observation of patients following vaccination. These safety findings are based on millions of doses administered (76.9 million as of March 1, 2021).⁴



CURRENT VACCINE ACCEPTANCE AND INTENTION

Numerous polls show changing public intentions toward getting COVID-19 vaccines over the course of the pandemic. Across the research, three distinct groups have emerged:

- **1.** Those who intend to get vaccinated as soon as possible
- 2. Those who are reluctant to get vaccinated right away (wait and see) or have not yet decided
- **3.** Those who are definitely not going to get vaccinated or will only get it if required

The wait and see group which comprises people who are reluctant but not opposed to vaccination, is the "moveable middle." There has already been shifting among some in this group toward the "immediate vaccinators."



FIGURE 1. VACCINE INTENTION AMONG ADULT POPULATIONS

ALREADY GOTTEN/AS SOON AS POSSIBLE WAIT AND SEE ONLY IF REQUIRED DEFINITELY NOT 55% 22% 7% 15% Total Race/ethnicity 41% 34% 14% 9% Black adults 52% 10% 12% Hispanic adults 26% 61% 18% 4% 15% White adults Age (years) 33% 13% 41% 13% 18-29 48% 20% 24% 7% 30-49 60% 20% 6% 14% 50-64 65 and over 77% 10% 3% 10% Community type 19% 4% 24% 53% Rural 56% 21% 6% 14% Suburban 55% 24% 13% 8% Urban Political view 41% 18% 10% 28% Republicans 75% 19% 4% 2% Democrats

SOURCE: Kaiser Family Foundation COVID-19 Vaccine Monitor (February 15-February 23, 2021)

A February 2021 report from the Kaiser Family Foundation⁵ found that 55 percent of the public intends to be vaccinated as soon as possible or have already been vaccinated (Figure 1). This is a significant increase from 34 percent in December 2020 and 47 percent in January, indicating that it is possible to shift those who are reluctant or not yet decided to vaccine acceptance. Twenty-two percent remain in the "moveable middle" and the final one in five are reluctant or opposed to COVID-19 vaccination. Black and Hispanic adults are most likely to say they will "wait and see" before making a vaccine decision, and Republicans and rural residents are most resistant to COVID-19 vaccination.

A national Ipsos Knowledge Panel conducted November 25-December 7, 2020 found similar proportions among the different categories of vaccine intention.⁶ Analysis indicated that those who intended to get vaccinated as soon as possible are about twice as likely as others to support communitarianism over individualism, support egalitarianism over hierarchy, and trust health departments and CDC. They are also about 10 times as likely to be confident in vaccine safety.

FIGURE 2. VACCINE CONCERNS VARY BY VACCINE ENTHUSIASM

AS SOON AS POSSIBLE WAIT AND SEE ONLY IF REQUIRED DEFINITELY NOT

(% who say they are very or somewhat concerned about each of the following)

Might experience serious side effects	56%	38%	80%	57%	63%
Might have to pay out-of-pocket to get the vaccine	35%	35%	45%	44%	18%
Might miss work if side effects make them feel sick	34%	23%	49%	42%	36%
Might get COVID-19 from the vaccine	33%	18%	51%	38%	40%
Won't be able to get vaccine from a place they trust	30%	27%	43%	37%	16%
It will be difficult to travel to a vaccination site	20%	20%	28%	24%	7%
Might need to take time off work to get the vaccine	17%	12%	25%	27%	11%

SOURCE: Kaiser Family Foundation COVID-19 Vaccine Monitor (February 15-February 23, 2021)

VACCINATION QUESTIONS AND CONCERNS

TOTAL

The February 2021 Kaiser Family Foundation COVID-19 Vaccine Monitor found that even those who are eager to get vaccinated may have questions about vaccine safety and side effects (Figure 2). This is to be expected given the relative speed of vaccine development, new vaccine technologies (e.g., mRNA vaccines), and evolving understanding of vaccine effectiveness among different virus variants and medical conditions. Additionally, as expected, those who are not as eager to get vaccinated are more likely to be concerned about vaccine safety and efficacy.

Concerns extend beyond the vaccines themselves. The Ipsos Knowledge Panel found that those who are waiting or reluctant to get vaccinated are more likely to be worried about the government requiring personal information. They are also concerned about the government and drug companies experimenting on people like them. This concern is heightened among US Black adults due to negative historic experiences with medical testing and continuing racism within the health system.

According to a December 2020 survey commissioned by NFID, only 49 percent of US Black adults plan to get vaccinated against COVID-19 once a vaccine is available to them, and more than half (52 percent) of Black adults

said the US healthcare system "always/often" treats people unfairly based on their race or ethnic background.7 Individuals who are waiting or reluctant to get vaccinated are also less likely than those who intend to get vaccinated to perceive COVID-19 as severe, consider COVID-19 vaccine important to stop the spread of infection, or have trust in health departments and CDC.

BUILDING VACCINE CONFIDENCE AMONG THE "MOVABLE MIDDLE"

Experts participating in the NFID roundtable agreed that a critical element of improving vaccine acceptance overall is building vaccine confidence among the wait and see group-the "movable middle." Addressing the concerns and misinformation regarding vaccine safety among this group starts with acknowledging that questions and concerns are reasonable.

It is important to communicate transparently about the vaccine development process, technology, ingredients, side effects, and safety monitoring.



Foundation for Infectious Diseases

Given the lack of trust in public health and government among some in this group, vaccine safety information would be most compelling and credible if delivered through trusted influencers and messengers including healthcare professionals, business, civic, faith, and community leaders. Seeing support for vaccination from leaders and institutions across sectors can also help the public view vaccination as a social norm.

Members of this group may need additional education on COVID-19 risks and vaccination benefits. Aligning vaccination benefits with the specific values of each audience, using emotional appeals, and encouraging vaccination through trusted messengers across sectors can help motivate action. Trusted messengers are especially important for target audiences that mistrust government officials or scientific experts whose values they see as significantly different from their own.

The range of attitudes and knowledge among the public about COVID-19 prevention measures—including masks, social distancing, handwashing, and vaccines—will require a range of honest, forthright communication strategies. The next section proposes key tenets that should inform all communication efforts; lays out a communication framework including core principles, approaches, strategies, and considerations for message framing and delivery; and provides key message themes and tips for developing tailored messages.

"Having very safe and effective vaccines is only half the equation. The public must want them. At the end of the day, vaccines don't save lives, vaccination does."

–Daniel A. Salmon, PhD, MPH Johns Hopkins Bloomberg School of Public Health



LEADING BY EXAMPLE

Several organizations offer concrete examples of how to put the framework into practice.

Service Employees International Union (SEIU)

SEIU has more than 2 million members, the majority of whom are essential workers in healthcare, schools, public services, security, janitorial, and childcare. SEIU is serving as a trusted source of information to help members-many of whom are unsure about getting vaccinated-make informed decisions. To encourage equitable vaccination, SEIU has:

- Adopted principles on COVID-19 vaccination encouraging equitable vaccination
- Disseminated educational materials
- Hosted regional meetings and national town halls in multiple languages with trusted experts to answer member questions/concerns
- Created an outreach campaign to share testimonials and photos of essential workers

^{8 |} COVID-19 COMMUNICATIONS: PROMOTING PREVENTION MEASURES AND VACCINE CONFIDENCE

COVID-19 is a novel and evolving disease; therefore, acknowledge that scientific understanding regarding transmission and prevention is also developing

Evolving scientific knowledge can be hard for the public to understand, but it is critical to proactively communicate to maintain trust in scientific experts and explain shifts in public health guidelines.

There is strong evidence for currently recommended prevention measures, including wearing masks, proper handwashing, and social distancing

Increase adherence by providing clear guidelines and practical advice on how to implement these measures to minimize the risk of COVID-19. Recognize that there are also real barriers to implementing certain preventive measures in low-resource communities that cannot be addressed by communication alone.

Education alone is not sufficient to increase adherence among those whose personal beliefs do not align with prevention measures and those who do not have trust in science and/or government

Specific community needs must be addressed with messages, reassurance, and personalized emotional appeals that resonate within the community. Engaging trusted community influencers, outside of public health or government roles, to normalize recommended behaviors through communications, policies, and incentives can help encourage adoption. Vaccination is a powerful tool in controlling the pandemic, but other prevention measures, including masks and social distancing, must continue until adequate levels of immunization are achieved

While this message may reduce the perceived benefit of vaccination, it must be clearly and transparently communicated to support informed decision-making, encourage safe behavior, and maintain trust in institutions and experts recommending vaccination.

Even as COVID-19 vaccine acceptance is increasing, valid questions remain regarding safety and efficacy, and the public is also sifting through widespread misinformation and disinformation

Lack of trust in science and/or government makes it difficult to overcome these challenges, especially among groups with a history of being underserved or marginalized by medical and scientific communities and those who feel alienated from government and scientific leaders. Building vaccine confidence requires acknowledging and addressing concerns; aligning vaccination benefits with emotions, specific values, and priorities; and establishing vaccination as a social norm with compelling messages and the support of influencers and trusted sources to increase credibility of information.



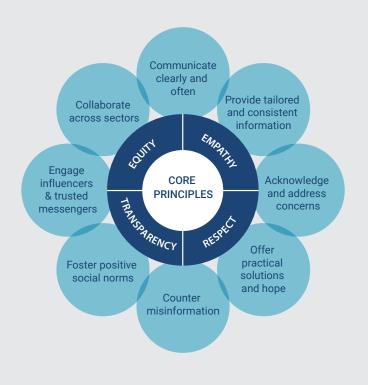
COMMUNICATION FRAMEWORK

This communication framework summarizes and expands on the themes and communications goals discussed by the experts at the virtual roundtable. Effective communication begins with the four core principles at the center of Figure 3 and employs the strategies that encircle them in different communications approaches based on specific audience needs.

"Our communications about COVID-19 risk needs to be proactive, empathetic, transparent, and tailored to each audience."

-Patricia A. Stinchfield, MS, CPNP NFID President-Elect

FIGURE 3. COMMUNICATION FRAMEWORK



CORE PRINCIPLES

Core principles to maintain trust during an extended crisis (such as the COVID-19 pandemic) are respect, empathy, transparency, and equity. It has been a very challenging year, especially for those who have been disproportionately affected by illness, loss of loved ones, and economic insecurity. Acknowledging these significant losses as well as educational, mental health, and other challenges conveys empathy and respect for what individuals are experiencing-as well as the difficulties or concerns they may face in following public health guidelines. There may be continued uncertainty and change regarding COVID-19 science, guidelines, and policies. Being transparent about this uncertainty helps manage expectations and reduce anxiety and confusion when there are changes. In addition to being transparent. it is critical to ensure information reaches everyone in ways that they can understand and act upon. Considering and addressing literacy, language, access, and factors that shape COVID-19 experiences are central to equity in communication.



Content preferences



LEADING BY EXAMPLE

Business Partners to CONVINCE

Business Partners to CONVINCE is a new multi-sector effort to empower a vaccineliterate public. Part of a broader, global CONVINCE initiative (COVID-19 New Vaccine Information, Communication, and Engagement), the campaign seeks to mobilize the business community to engage employers and employees to accept COVID-19 vaccines with **The Global COVID-19 Workplace Challenge:**

- Listen to employees' needs and concerns about the impact and prevention of COVID-19
- Follow the latest public health guidance to protect employees, workplace, customers, and community from COVID-19
- Promote vaccine literacy based on the latest scientific evidence of vaccination benefits and risks
- Encourage vaccine confidence and uptake
- Advocate for accessible, equitable, and timely vaccination of employees
- Engage with communities, schools, faithbased organizations, and public health leaders to stop the spread of COVID-19

COMMUNICATION APPROACHES

Communicating during a pandemic requires a range of approaches based on the specific target audience and context.

- Crisis communication: Most people are anxious and confused as they navigate the evolving information related to COVID-19. Showing empathy and support for informed decision-making is critical for all audiences.
- 2. Outrage management: Many people are upset about changing COVID-19 guidelines or are concerned about vaccine safety. In this case, it is important to acknowledge and address the concerns to help them feel more comfortable in following recommendations.
- Precaution advocacy: Some people do not perceive COVID-19 to be a serious risk. In this case, it is necessary to first increase their understanding of risks related to getting and transmitting the disease– both for themselves and those they care about–before encouraging them to take precautions against it.

"Enthusiasm is communicable."

– William Schaffner, MD NFID Medical Director





COMMUNICATION STRATEGIES

The following strategies can be used across audiences to build trust in public health guidelines and motivate action:

Communicate clearly and often:

Proactively and regularly sharing information is critical in this rapidly changing and uncertain environment to reduce anxiety and manage expectations. It also ensures that when people do seek information, they are more likely to find facts rather than misinformation. Ensuring that the facts are easy to find and understand also helps reduce confusion and makes it less likely that individuals will seek information from unreliable sources. Consider health literacy of target audiences when developing messaging and content.

Provide tailored and consistent information: For information to be relevant and compelling, it needs to be tailored to the audience based on their knowledge, beliefs, values, priorities, and communication preferences. However, it is critical to ensure that there is consistency across the messages shared, to avoid confusion and ensure equity in information access. Acknowledge and address concerns:

In the context of new and evolving science, it is expected that people will have questions and concerns. If these are not addressed directly and effectively, individuals may seek answers elsewhere and are more likely to encounter misinformation that could undermine informed and evidence-based decision making.

Offer practical solutions and hope: Even those who are supportive of public health guidelines face challenges in adhering to them all the time. Providing practical tips on how to implement prevention measures and suggestions on lowering risk when adherence is not possible can increase selfefficacy (a person's belief in his or her ability to succeed in a particular situation) and help reduce fatigue in following restrictive guidance. Hope is a strong predictor for following public health guidelines. Framing prevention measures and vaccination as our best tools for controlling the pandemic can help bolster motivation.

Counter misinformation: Once misinformation starts spreading, it is difficult to stop, particularly on social media. In addition to proactively sharing accurate information, making it engaging and credible increases the likelihood that it will be seen and accepted over misinformation. Content should be relevant and compelling to counter misinformation—and it should be promoted and endorsed by trusted influencers who have strong community ties and networks (including social media) that can be leveraged.

Foster positive social norms: While most people do not like being told what to do, they act based on what they think they should do. Fostering social norms that support adherence to prevention measures and vaccine confidence can be a powerful way to motivate those behaviors. This can be done by using traditional and social media to make the behaviors visible and celebrated in the community and by providing incentives for compliance, setting expectations through policy, and engaging trusted community leaders/influencers to set positive examples.

- Engage influencers and trusted messengers: In the current environment, the source of information matters just as much-if not more-than its accuracy. This is especially true when trying to counter misinformation or change perceptions. While scientific experts and public health professionals are a credible source of health information for many, they are not for everyone. Working with leaders and organizations across sectors that have trust and influence can boost credibility, confidence, and acceptance.
- Collaborate across sectors: Establishing adherence to prevention measures and vaccination as social norms requires broad support and collaboration across sectors, including business, healthcare, education, employer, workforce, and government.
 Consistency in communication, policy, and action can bolster confidence in scientific information and public health guidance as well as reduce confusion and counter misinformation. All sectors have a stake in controlling the pandemic, and every organization has a role to play.

"Pointing approvingly to the recommended behaviors is more persuasive than pointing disapprovingly to those who chose to 'misbehave.' Or as I often put it, bandwagoning works better than finger-wagging."

> -Peter M. Sandman, PhD Risk = Hazard + Outrage



LEADING BY EXAMPLE

Business Group on Health

Business Group on Health is a global member network of health benefits professionals from employers and industry partners reaching more than 60 million covered lives. Business Group members have promoted public health measures by creating safer work environments, implementing personal protective equipment (PPE) requirements and sanitation measures, testing and screening, and adjusting leave policies to discouraging working while sick. Many members plan to conduct communications campaigns to encourage COVID-19 vaccination and are exploring opportunities to support vaccine distribution.



MESSAGE FRAMING

Bundle behaviors: Bundling prevention behaviors-masking, social distancing, handwashing, and vaccination-can strengthen adherence for all of them and relay that they are all important. It is also an effective way to build intention for vaccination prior to availability by attaching it to measures that are being followed by most.

Do not overpromise but do provide hope:

Recommended prevention measures and vaccination are powerful tools for controlling the spread of COVID-19 that give us hope for the future. However, it is important to explain that it will take time and widespread implementation to end the pandemic– especially in light of virus variants, limited vaccine supply, and vaccine distribution challenges.

Align with values: Given the range of public perspectives about COVID-19 prevention measures, messaging should align with values and priorities of the target audience. For example, if the audience values communitarianism, highlighting that we are all in this together and must all do our part to stop the spread of COVID-19 is compelling. For audiences that value individualism, it is more compelling to focus on individual benefits of returning to activities they enjoy.

Acknowledge challenges but stay positive: It is important to acknowledge how challenging this pandemic has been for everyone. Messaging that provides hope and relays positive emotions is more effective for motivating action than messaging relying on fear and shame.

Reinforce positive norms and nudge others to

follow: Rather than focusing on what people are not doing-or need to do better-highlight and reinforce positive norms. Explicitly communicating that most people support and are following public health guidelines can be effective in encouraging others to do the same.

KEY MESSAGE THEMES

- The COVID-19 pandemic has been difficult for almost everyone-and especially challenging for those on the front lines and in disproportionately affected communities
- 2. Since COVID-19 is a new and evolving disease, expect the science around it to evolve
- Things will get better faster if we continue to follow public health guidelines based on the best science available
- Wearing masks, social distancing, handwashing, and getting vaccinated (when eligible) are things we all can do to protect ourselves and our loved ones from getting COVID-19
- Most people are following public health guidelines and doing their best to help stop the spread of COVID-19
- There are ways to minimize risk when you gather-meet outdoors, keep it small, keep it brief, and follow safety guidelines (masks, social distancing, and handwashing)
- Vaccines are highly effective in preventing illness and millions of people have been safely vaccinated in the US
- There have been challenges in this unprecedented vaccine rollout, but things are improving and vaccine supply continues to increase
- The sooner we get the pandemic under control, the sooner we can go back to normal activities and seeing the people we love, in-person
- It will take all of us working together to get the pandemic under control-and we all have a stake in making that happen

LEADING BY EXAMPLE

American College Health Association (ACHA)

ACHA is a national non-profit association of members who deliver healthcare, prevention, and wellness services for 19 million college students in the US. ACHA has created a Higher Education COVID-19 Community of Practice to support campus stakeholders in identifying strategies to reduce disease transmission among students and training student ambassadors to develop content and messaging to promote prevention behaviors to their peers through social media.

SAMPLE COVID-19 VACCINE MESSAGING

The following are sample messages based on the key message themes and should be customized for specific target audiences:

- COVID-19 is new, so we need new vaccines to protect against it, but vaccines have been saving lives and protecting us for many years
- Scientists had years of research on how to make effective coronavirus vaccines when they began developing COVID-19 vaccines in 2020
- Tens of thousands of diverse volunteers participated in clinical trials to ensure safe and effective COVID-19 vaccines
- All FDA-authorized vaccines for use in the US have met rigorous standards for quality, safety, and effectiveness-and they continue to be monitored carefully through multiple systems
- COVID-19 vaccines protect individuals from severe illness, hospitalization, and death
- More than 75 million people in the US have safely received COVID-19 vaccines, with the number growing each day

DEVELOPING TAILORED MESSAGES

Developing tailored messages for a target audience is best done in partnership with the information sources they already trust. These partners will not only have credibility when delivering the messages, but insight regarding specific audience concerns, challenges, personal and religious beliefs, values, priorities, socio-cultural context, and language. They can best advise on how to frame and craft messages that will be relevant, compelling, and actionable.

Once tailored messages have been developed, it is important to consider which content formats and communication platforms are preferred by the target audience. Ideally, communication materials should be tested with the intended audience before disseminating to ensure they are appealing and easy to understand.

SUMMARY

Controlling the COVID-19 pandemic requires widespread adherence to recommended preventive measures as well as vaccine confidence. The public health community cannot achieve this alone. Professionals and organizations across sectors must take steps to build trust in public health guidelines and support social norming of prevention behaviors. Central to these efforts are tailored and cohesive communications that provide clear information, address concerns, and motivate action.



PARTICIPATING ORGANIZATIONS

- Alliance for Aging Research
- AMDA—The Society for Post-Acute and Long-Term Care Medicine
- American Academy of Family Physicians
- American Academy of Pediatrics
- American Academy of Physician Assistants
- American Association of Nurse Practitioners
- American Association for Respiratory Care
- American College Health Association
- American College of Emergency Physicians
- American College of Physicians
- American Lung Association
- American Nurses Association
- American Pharmacists Association
- American Public Health Association
- American Society on Aging
- American Thoracic Society
- Association of Diabetes Care & Education Specialists
- Association of Immunization Managers
- Association for Professionals in Infection Control and Epidemiology
- Biotechnology Innovation Organization (BIO)
- Business Group on Health
- Business Partners to CONVINCE/CONVINCE Initiative
- Centers for Disease Control and Prevention
- Center for Sustainable Health Care Quality and Equity/National Minority Quality Forum
- CUNY Graduate School of Public Health and Health Policy
- Infectious Diseases Society of America

- Johns Hopkins University
- Kaiser Family Foundation
- National Alliance for Caregiving
- National Association of Chain Drug Stores
- National Association of County and City Health Officials
- National Association of Pediatric Nurse Practitioners
- National Cancer Institute
- National Community Pharmacists Association
- National Council on Aging
- National Foundation for Infectious Diseases
- National Institutes of Health
- National Medical Association
- National Parent Teacher Association
- Nurses Who Vaccinate
- Risk = Hazard + Outrage
- Service Employees International Union
- Society for Adolescent Health and Medicine
- Stanford University
- The Ad Council
- The Gerontological Society of America
- The Society for Healthcare Epidemiology of America
- Trust for America's Health
- University of Georgia
- University of Pennsylvania
- US Food and Drug Administration
- Vaccinate Your Family
- Vaccine Education Center at CHOP
- Visiting Nurses Association

REFERENCES/RESOURCES

- 1. Johns Hopkins University School of Medicine. Coronavirus Resource Center. coronavirus.jhu.edu/. Updated March 1, 2020. Accessed March 1, 2021.
- Lopes L, Kearney A, Kirzinger A, Hamel L, Brodie M. KFF Health Tracking Poll December 2020: COVID-19 and Biden's health care agenda. www.kff.org/coronavirus-covid-19/report/kff-health-tracking-poll-december-2020/. Published December 18, 2020. Accessed March 7, 2021.
- Lissa CJ van, Stroebe W, vanDellen M, et al. Early indicators of COVID-19 infection prevention behaviors: Machine learning identifies personal and country-level factors. Published online November 5, 2020. Accessed March 9, 2021. doi:10.31234/osf.io/whjsb.
- 4. Centers for Disease Control and Prevention. COVID Data Tracker. covid.cdc.gov/covid-data-tracker. Published March 28, 2020. Accessed March 6, 2021.
- 5. Hamel L, Sparks G, Brodie M. KFF COVID-19 Vaccine Monitor: February 2021. www.kff.org/coronavirus-covid-19/poll-finding/kff-covid-19-vaccine-monitor-february-2021/. Published February 26, 2021. Accessed March 15, 2021.
- 6. Understanding diverse communities and supporting equitable and informed COVID-19 vaccination decision-making. cdn.ymaws.com/www.walhdab.org/resource/dynamic/forums/20201229_143032_22575.pdf. Published online December 21, 2020. Accessed March 6, 2021.
- 7. National Foundation for Infectious Diseases. National Survey: Black Adult Perspectives on COVID-19 and Flu Vaccines. www.nfid.org/national-survey-black-adult-perspectives-on-covid-19-and-flu-vaccines. February 2021. Accessed March 1, 2021.

ADDITIONAL RESOURCES

COVID-19 Risk and Burden

- Alwan NA, Burgess RA, Ashworth S, et al. Scientific consensus on the COVID-19 pandemic: we need to act now. Lancet. 2020;396(10260). doi: 10.1016/S0140-6736(20)32153-X.
- Paltiel AD, Schwartz JL, Zheng A, Walensky RP. Clinical outcomes of a COVID-19 vaccine: implementation over efficacy. *Health Aff.* 2021;40(1):42-52. Epub 2020 Nov 19. Doi: 10.1377/hlthaff.2020.02054.
- Walensky RP, Del Rio C. From mitigation to containment of the COVID-19 pandemic: putting the SARS-CoV-2 genie back in the bottle. JAMA. 2020;323(19):1889-1890. doi: 10.1001/jama.2020.6572.

Recommended Public Health Measures to Prevent COVID-19

- Alagoz O, Sethi AK, Patterson BW, Churpek M, Safdar N. Effect of timing of and adherence to social distancing measures on COVID-19 burden in the United States: a simulation modeling approach. *Ann Intern Med.* 2021;174(1): 50-57. doi: 10.7326/M20-4096.
- Johansson MA, Quandelacy TM, Kada S, et al. SARS-CoV-2 transmission from people without COVID-19 symptoms. JAMA Netw Open. 2021;4(1). doi: 10.1001/jamanetworkopen.2020.35057.
- Park CL, Russell BS, Fendrich M, Finkelstein-Fox L, Hutchinson M, Becker J. Americans' COVID-19 stress, coping, and adherence to CDC guidelines. J Gen Intern Med. 2020;35(8):2296-2303. doi: 10.1007/s11606-020-05898-9.

Addressing Challenges to Public Adherence

- DeLuca S, Papageorge N, Kalish E. The unequal cost of social distancing. Johns Hopkins Corona Virus Resource Center. coronavirus.jhu.edu/from-our-experts/the-unequal-cost-of-social-distancing. [Online resource]. Accessed January 20, 2021.
- Howard J, Huang A, Li Z, et al. An evidence review of face masks against COVID-19. Proc Natl Acad Sci USA. 2021,118 (4). doi: 10.1073/pnas.2014564118.
- Khubchandani J, Saiki D, Kandiah J. Masks, gloves, and the COVID-19 pandemic: rapid assessment of public behaviors in the United States. *Epidemiologia*. 2020;1(1), 16–22. doi: 10.3390/epidemiologia1010004.



- Papageorge NW, Zahn MV, Belot M, et al. Socio-demographic factors associated with self-protecting behavior during the Covid-19 pandemic. J Popul Econ. 2021;1-48. doi: 10.1007/s00148-020-00818-x.
- Taylor S, Asmundson G. Negative attitudes about facemasks during the COVID-19 pandemic: the dual importance of perceived ineffectiveness and psychological reactance. *medRxiv*. 2020.11.17. doi: 10.1101/2020.11.17.20233585.
- The psychological impact of COVID-19: a multi-country study. Online ad hoc, Multinational Collaborative Study in Response to the COVID-19 Pandemic. psycorona.org/. [Online resource]. Accessed January 20, 2021.

COVID-19 Vaccination

- Rowland C. Doctors and nurses want more data before championing vaccines to end the pandemic. *The Washington Post*. November 11, 2020. www.washingtonpost.com/business/2020/11/21/vaccines-advocates-nurses-doctors-coronavirus/. Accessed January 16, 2021.
- Stead-Sellers F. A shot. A wait. Another shot: two-dose coronavirus vaccine regimens will make it harder to inoculate America. *The Washington Post*. November 27, 2020. www.washingtonpost.com/health/two-shots-covid-vaccine/2020/11/27/b852a19a-2f24-11eb-bae0-50bb17126614_story.html. Accessed January 18, 2021.

Increasing Vaccine Acceptance

- Centers for Disease Control and Prevention. COVID-19 vaccination communication toolkit for medical centers, pharmacies, and clinicians. www.cdc.gov/vaccines/covid-19/health-systems-communication-toolkit.html. Updated December 21, 2020. Accessed January 18, 2021.
- Schoch-Spana M, Brunson E, Long R, Ravi S, Ruth A, Trotuchaud M on behalf of the Working Group on Readying Populations for COVID-19 Vaccine. The public's role in COVID-19 vaccination: planning recommendations informed by design thinking and the social, behavioral, and communication sciences. www.centerforhealthsecurity.org/our-work/ publications/the-publics-role-in-covid-19-vaccination. Posted July 9. 2020. Accessed January 20, 2021.

Vaccine Acceptance Trends

- Berkeley Media Studies Group. Communicating about the COVID-19 vaccines: guidance and sample messages for public health practitioners. www.phi.org/thought-leadership/communicating-about-the-covid-19-vaccines-guidanceand-sample-messages-for-public-health-practitioners/. December 10, 2020. Accessed January 20, 2021.
- Khubchandani J, Sharma S, Price JH, Wiblishauser MJ, Sharma M, Webb FJ. COVID-19 vaccination hesitancy in the United States: a rapid national assessment. *J Community Health*. 2021;46(2):270-277. doi: 10.1007/s10900-020-00958-x.
- Lazarus JV, Ratzan SC, Palayew A, et al. A global survey of potential acceptance of a COVID-19 vaccine. *Nat Med.* 2020;27(2):1–4. doi: 10.1038/s41591-020-1124-9.
- Marks PW. Opinion: I'm the FDA point person on COVID-19 vaccines. We'll make sure they're safe and effective. APhA. www.pharmacist.com/article/opinion-im-fda-point-person-covid-19-vaccines-well-make-sure-theyre-safe-and-effective. October 29, 2020. October 29, 2020. Accessed January 18, 2021.
- Opel DJ, Salmon DA, Marcuse EK. Building trust to achieve confidence in COVID-19 vaccines. JAMA Netw Open. 2020;3(10):e2025672. doi: 10.1001/jamanetworkopen.2020.25672.
- Reagan Udall Foundation for the FDA. COVID-19 Vaccine Confidence Project Executive Summary. covid19.reaganudall. org/covid-19-vaccine-confidence-project. Final report December 15, 2020. Accessed January 20, 2021.
- Salmon DA, Dudley MZ. It is time to get serious about vaccine confidence. Lancet. 2020;26;396(10255):870-871. doi: 10.1016/S0140-6736(20)31603-2.
- Shah A, Marks PW, Hahn SM. Unwavering regulatory safeguards for COVID-19 vaccines. JAMA. 2020;324(10):931-932. doi: 10.1001/jama.2020.15725.

Effective COVID-19 Communications

- Santana FN, Fischer SL, Jaeger MO, Wong-Parodi G. Responding to simultaneous crises: communications and social norms of mask behavior during wildfires and COVID-19. *Environmental Research Letters*. 2020;15:11. iopscience.iop. org/article/10.1088/1748-9326/abba55. Accessed January 20, 2021.
- Young SD, Goldstein NJ. Applying social norms interventions to increase adherence to COVID-19 prevention and control guidelines. *Prev Med.* 2021;145:106424. doi: 10.1016/j.ypmed.2021.106424.

Social Media Narratives

- Malecki K, Keating JA, Safdar N. Crisis communication and public perception of COVID-19 risk in the era of social media. Clin Infect Dis. 2020;72(4):697-702. doi: 10.1093/cid/ciaa758.
- Romer D, Jamieson KH. Conspiracy theories as barriers to controlling the spread of COVID-19 in the US. Soc Sci Med. 2020;263:113356. doi: 10.1016/j.socscimed.2020.113356.
- Smith R, Cubbon S, Wardle C. Under the surface: Covid-19 vaccine narratives, misinformation and data deficits on social media. firstdraftnews.org/wp-content/uploads/2020/11/FirstDraft_Underthesurface_Fullreport_Final. pdf?x67996. First Draft. November 12, 2020. Accessed January 20, 2021.

Fostering Cross-Sector Support in Delivering Public Health Guidance

- Lazarus JV, Ratzan SC, Palayew A, et al. A global survey of potential acceptance of a COVID-19 vaccine. Nat Med. 2020;27(2):1-4. doi: 10.1038/s41591-020-1124-9.
- National Academies of Sciences, Engineering, and Medicine 2020. Framework for equitable allocation of COVID-19 vaccine for adoptions by HHS, state, tribal, local, and territorial authorities (press release, October 2, 2020). Washington, DC: The National Academies Press. www.nationalacademies.org/news/2020/10/national-academies-release-framework-for-equitable-allocation-of-a-covid-19-vaccine-for-adoption-by-hhs-state-tribal-local-and-territorial-authorities. Accessed January 20, 2021.
- Ratzan SC, Sommariva S, Rauh L. Enhancing global health communication during a crisis: lessons from the COVID-19 pandemic. Public Health Res Pract. 2020;30(2):3022010. doi: 10.17061/phrp3022010.

Background on Authorized Vaccines

- Baden LR, El Sahly HM, Essink, B, et al. Efficacy and safety of mRNA-1273 SARS-CoV-2 vaccine. N Engl J Med. 2021;384(5):403-416. doi: 10.1056/NEJMoa2035389.
- Centers for Disease Control and Prevention. When vaccine is limited, who should get vaccinated first? www.cdc.gov/ coronavirus/2019-ncov/vaccines/recommendations.html. Updated January 8, 2021. Accessed January 20, 2021.
- Fact sheet for recipients and caregivers. Emergency Use Authorization of the Moderna COVID-19 vaccine to prevent coronavirus disease 2019 (COVID-19) in individuals 18 years of age and older. www.fda.gov/media/144638/download. Revised December 2020. Accessed January 20, 2021.
- Fact sheet for recipients and caregivers. Emergency Use Authorization of the Pfizer-BioNTech COVID-19 vaccine to prevent coronavirus disease 2019 (COVID-19) in individuals 16 years of age and older. www.fda.gov/media/144414/ download. Revised December 2020. Accessed January 20, 2021.
- Polack FP, Thomas SJ, Kitchin N, et al. Safety and efficacy of the BNT162b2 mRNA Covid-19 vaccine. N Engl J Med. 2020; 383:2603-2615. doi: 10.1056/NEJMoa2034577.





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