COVID-19 VACCINE TOOLKIT FOR MAYORS

PUBLIC ENGAGEMENT AND COMMUNICATIONS

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Context

The COVID-19 vaccine, developed in record time, is the path forward for ending the current pandemic and reopening cities around the world. However, effective and equitable vaccination is an unprecedented logistical and public education challenge. Mayors and city leadership play a critical role in responding to this challenge, given their strong connection to residents and deep understanding of local context.

Purpose

The COVID-19 Vaccine Toolkit provides Mayors and their teams the guidance and resources they need to help facilitate the largest vaccination program ever seen in the United States. This toolkit is grounded in extensive research and interviews with leading experts and city leaders across the country with significant experience in public health, municipal emergency management, and crisis response.

Acknowledgments

Special thanks to our partners at The Behavioral Insights Team, Johns Hopkins University and the Center for Health Equity, and Delivery Associates for sharing their expertise.

For **more information** please visit bloombergcities.jhu.edu/vaccine.

For any **questions or feedback**, please email coronavirusresponse@bloomberg.org.

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INTRODUCTION: PUBLIC ENGAGEMENT AND COMMUNICATIONS

To achieve an effective and equitable vaccination rollout, Mayors will play a critical role in communicating with their communities about the vaccine. Effective public engagement on the COVID-19 vaccine is not an easy task. While the majority of U.S. residents intend to get the COVID-19 vaccine, one in four U.S. residents say they wouldn't get the vaccine if it were free, determined safe by scientists, and available today (as of January 2021). Even for those who want the vaccine, in the early phases it is not always easy for residents to determine whether they're eligible, and if so, to navigate how to receive the vaccine.

If not already underway, Mayors need to begin engaging residents about the COVID-19 vaccine distribution process and the importance of receiving the vaccine. Effective local engagement requires staying abreast of a rapidly evolving vaccine distribution process, monitoring emerging concerns of residents, understanding evidence-based messages that can build public trust, identifying trusted messengers, and investing in community-specific communications campaigns.

The federal government is preparing to play a larger role in mounting a "safe, effective, comprehensive vaccination campaign," as the Biden administration details in its new "National Strategy for the COVID-19 Response and Pandemic Preparedness." The federal government's efforts will include guidance and tools related to engaging the American people, including communications "toolkits for local leaders" and a national vaccinations public education campaign, with the goal of increasing public trust in the COVID-19 vaccine. Cities should keep abreast of new federal resources as they are developed and shared. The evidence-based best practices in this guide are aligned with the general engagement plans set out by the Biden administration and provide detailed guidance for Mayors on urgently needed public engagement.

How to Use this Module

This module provides evidence-based public engagement and communications guidance for Mayors and their staff. Mayors may feel comfortable with some elements of vaccine engagement and communications, but not others. Accordingly, this module is designed to be useful its entirety or in separate parts. Each section contains a set of stand-alone and actionable recommendations that can be used to get started right away.

The brief guide on the next page outlines the content found in each section to allow the reader to find the topics most relevant to their needs.

Understanding Messaging Challenges: Why are People Hesitant?

This section presents the groups most hesitant about the COVID-19 vaccine and summarizes the underlying drivers of vaccine hesitancy.

The Mayoral Role in COVID-19 Vaccine Messaging

This section provides concise guidance on the optimal messaging role for Mayors related to the COVID-19 vaccine and distribution process in a crowded messaging context.

Best Practices for COVID-19 Vaccine Communications from City Hall

This section contains evidence-based tips and best practices for developing effective digital, print, and verbal COVID-19 vaccine messages to be distributed by Mayors and their staff.

How to Reach At-Risk Communities

Vaccination is particularly important for disproportionately affected communities. However, as a result of current inequities, historical treatment, and other community-specific injustices, many of these communities have lower trust in the vaccine. This section shares best practices for engaging these communities.

How to Engage and Deploy Trusted Community Messengers

Disseminating information through trusted messengers is key to increasing vaccination uptake. People give more weight to information when it comes from someone who is seen as trustworthy and credible in their community. This section shares best practices around engaging trusted local messengers about the COVID-19 vaccine, including healthcare workers.

Best Practices and Tools for Countering Misinformation

Misinformation about the vaccine and distribution process threatens public trust. This section shares evidence-based guidelines and resources for Mayors for getting ahead of, crowding out, and debunking vaccine-related misinformation.

The Importance of Rigorously Testing Vaccine Messaging

Messages intended to increase engagement with vaccine-related materials or drive people to make vaccination appointments can be rigorously tested for effectiveness. This section links to an e-learning resource detailing how to use rapid A/B testing to test the effectiveness of Mayoral vaccine messaging.

UNDERSTANDING MESSAGING CHALLENGES: WHY ARE PEOPLE HESITANT?

While the majority of U.S. residents intend to get the COVID-19 vaccine, one in four U.S. residents say they wouldn't get the vaccine if it were free, determined safe by scientists, and available today.[1] Thankfully, approximately half of that group say they may change their mind and U.S. residents' overall intent to get vaccinated is slowly increasing.

While national survey data is informative, the reasons for hesitancy can be nuanced and community-specific. With strong knowledge of their communities, Mayors are well-positioned to use national trends as a starting point for understanding local reasons for hesitancy and deploying relevant messages and messengers to address these concerns.

We present the common drivers of COVID-19 vaccine hesitancy below. We draw on:

·   Nationwide surveys, like the Kaiser Family Foundation Vaccine Monitor
·   Academic research
·   Original survey and focus group research conducted by BIT

Why are People Hesitant to get the COVID-19 Vaccine?

COVID-19 vaccine hesitant individuals cite a wide variety of reasons, most of which are understandable. Some of the most common drivers of hesitancy include:

Safety concerns, including fear of short and long term side effects:

In recent polling by KFF, "among those who are hesitant to get a COVID-19 vaccine," the main reason is concern about possible side effects (cited by 59%).[1] In BIT focus groups, participants cited uncertainty about possible long term side effects.[i]

> *"They tested it, I trust Pfizer and all those places, but no one really knows what's gonna happen in one year or two years, … I don't know if I'd risk that yet."*
>
> - Latino focus group participant[i]
>
> *"I'm not worried about a sore arm or a headache, I'm worried about a neurological disorder ten years down the road."*
>
> - White female focus group participant[i]

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[i] BIT conducted 9 focus groups from December 28 2020 - January 5, 2021 with people who had not yet decided to get the COVID-19 vaccine.

Lack of trust in institutions and the vaccine development process.

Just behind side effects, hesitant individuals cite "a lack of trust in the government to ensure the vaccines' safety and effectiveness (55%)" and "concerns over the role of politics in the development process (51%)."[1]

Historical and current racial inequities and injustice in science and medicine.

For example, stemming from historical and present inequity in access to quality healthcare and notorious examples of abuse such as the Tuskegee Study, Black Americans are justifiably less likely to trust COVID-19 vaccines and less likely to volunteer for medical research.

Perceptions of risk.

COVID-19 has a high degree of symptom-free cases. This can lead to miscalculations about the risk of infection and the benefits of vaccination. Additionally, the risks associated with the COVID-19 vaccine seem novel and salient, which may make them more memorable or compelling.

Vaccine denialism.

About one third of people who do not intend to get the COVID-19 vaccine are vaccination opponents. Many in this group believe in vaccine-related conspiracy theories.[2] Note: messaging can influence people who haven't made up their mind about whether to be vaccinated, but is not likely to persuade vaccine opponents. When considering vaccine opponents, the primary goal should be to limit them from spreading vaccine opposition and related conspiracy theories to others (see "Best Practices and Tools for Countering Misinformation on page 27).

Which groups are more hesitant?

Broad patterns on the most hesitant groups have emerged across public polling conducted by KFF, Pew Research Center, Gallup, other research groups. We share the most consistent patterns below:

- **Race:** Black adults, a group that has suffered disproportionately, are more hesitant than adults of other races.[3] [4] 35% say they definitely or probably would not get vaccinated.[1]
- **Political party:** In the U.S., 45% of Republicans say they would get the COVID-19 vaccine, compared to 83% of Democrats.[3] Previous surveys suggest that hesitancy among Independents is similar to (or exceeding) Republicans.[1]
- **Age groups:** Individuals in the age group 30-49 are more likely to be hesitant than other age groups. 36% say they would probably or definitely not get the COVID-19 vaccine.[1] [4]
- **Rural vs urban groups:** Rural residents are among the most vaccine hesitant groups, even controlling for age, political ideology, and race.[5]

To review updated information on hesitancy and national attitudes towards COVID-19 vaccination, we recommend The Kaiser Family Foundation's Vaccine Monitor.

THE MAYORAL ROLE IN COVID-19 VACCINE MESSAGING

In order to be effective in a crowded COVID-19 vaccine messaging context, Mayors need to understand their vaccine messaging role. What topics should they speak to and when should they draw on federal, state, and local public health officials? How can they best use their public platform and relationships to encourage vaccine uptake?

The Mayoral messaging role laid out below — Understand, Amplify, Direct, Reassure, Role-Model, Activate, and Advocate — is based on expert interviews with national public health leaders and city leaders. In this framework and the subsequent resources in this guide, we apply best practices from public health communications experts, the behavioral science literature, and original survey and focus group research conducted by The Behavioral Insights Team to help Mayors and city leaders operate effectively in their messaging role.

Understand community concerns that drive COVID-19 vaccine hesitancy and local barriers to vaccine access.

At a high-level, seek to understand what factors drive vaccine hesitancy in your city. Use existing COVID-19 and other community stakeholder groups to listen to residents' concerns about the vaccine, the distribution process, and the barriers they face to accessing the vaccine.

Amplify health department messaging and guidance.

Repeat and reinforce messages from the health departments interacting with your residents (e.g., city, county, state, Centers for Disease Control and Prevention (CDC)) — from very high-level messages (e.g., the vaccines are safe and effective) to logistical details (e.g., location of vaccination sites and eligibility). Repetition will build confidence and participation.[i] Surveys show that Mayors are familiar, trusted sources who often reach residents that health departments can't reach on their own.

- Create a standard recommendation on where people can get vaccine information and repeat it over and over again. Being able to say "go to chicago.gov/COVIDvax or call 311 to find out everything you need to know about getting vaccinated" is powerful.

Direct residents to the right experts and resources.

The Mayor's office should make it clear to residents who the relevant COVID-19 vaccine authorities are and where to find updates that are meaningful for them. Use verbal addresses and online presence to direct residents to reliable sources of information for health questions (e.g., CDC on side effects) and logistical updates (e.g., county health department website on vaccination sites and how to sign up, who is currently eligible to get the vaccine). This can also help combat misinformation, see the "Best Practices and Tools for Countering Misinformation" module on page 27.

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[i] Experimental evidence suggests that repetition increases the perceived credibility of messages.[6]

Reassure.

Residents are more likely to participate in a vaccination process that they believe is fair and trustworthy[7][8], but we already know that there are challenges. Residents may be critical of the speed or organization of the rollout and have questions about fairness as some populations are prioritized for vaccination first.[i] As a moral authority in their community, the Mayor's opinions on fairness will matter to residents. Use the Mayor's platform to provide a vote of confidence in the process to encourage patience and build acceptance of the sequence for the rollout as fair and just. In event that the city is subject to a flawed distribution process, reassure residents that the Mayor is advocating for their interests.

Mayors should regularly and transparently share data-driven updates on the status of vaccine distribution in their city. For more guidance on vaccine distribution metrics, see the "COVID-19 Vaccine Toolkit: Data and Monitoring Strategies".

Mayors are also well positioned to quickly respond to emerging concerns about the vaccine. For more information on responding to emerging concerns, see "Responding to Emerging COVID-19 Vaccine Concerns" on page 16.

Role-model.

Demonstrate that the Mayor and city staff are confident in the vaccine, will get it as soon as it is available to them, and are following all of the relevant COVID-19 safety protocols to prevent the spread. Capture and share photo and/or video of mayors and other leaders receiving vaccinations as much as possible.

> *"I feel like if ... the Mayor, did get the vaccine and did it publicly it would influence a lot of people outside of the religious organizations, especially those who keep up with other community as well, different pillars of the community."*
> - Black female focus group participant[ii]
>
> *"They have to be an example. [...] They have to show themselves, they have to receive the vaccine. And make the vaccine available to everybody. They say that is available, they have to be very clear the way it's going to be to the people to feel secure. But I think the example."*
> - Mexican Consulate Health Team focus group participant [ii]

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[i] This may be particularly true for communities (e.g., communities of color, people with disabilities, transgender, non-binary, and LGBQA+ populations) that have experienced historical medical abuses (e.g., Tuskegee study) as well as ongoing health disparities and discrimination. Here, the role of trusted, in-group messengers will be important to increase uptake.

[ii] BIT conducted 9 focus groups from December 28, 2020 - January 5, 2021 with people who had not yet decided to get the COVID-19 vaccine.

Activate other leaders as messengers, especially in at-risk communities.

Use the city's network and influence to ensure that other community leaders are similarly role-modeling and spreading the word. This includes empowering them with the right information and ability to ask questions — and have them answered. This will help reach communities who may be disconnected from the city's typical channels — many of whom have already disproportionally carried the burden of this virus. Trusted messengers can also reinforce critical messages via repetition and ensuring residents are equipped with good information. For example, encouraging and equipping faith and other community leaders outside of the healthcare profession to speak about vaccination will help build trust. Similarly, support from the Mayor may help motivate healthcare workers to have impact as messengers in their daily lives outside of work.

As part of this outreach, Mayors should connect trusted messengers with experts and provide a platform for resident engagement (e.g., public panels, radio broadcasts). For more on how to activate community messengers, see page 22 on mobilizing trusted community messengers, including healthcare professionals in particular.

Advocate for residents with a focus on equity.

As you convey messages to your residents, listen to the concerns that they raise and relay these to the responsible stakeholders (county and state government, local health department, pharmacies, hospitals, and more), including responses to their messaging. If, for example, residents from a particular community do not have clear, actionable guidance on where and when to get vaccinated due to language barriers or lack of internet access, advocate and work with health departments to translate and adapt to other channels. Consider leveraging lessons learned from COVID-19 testing, the Census, and other community engagement efforts.

This advocacy is especially important on behalf of at-risk communities who suffer worse COVID-19 outcomes and reduced access to healthcare. For more on reaching these communities, see the "How to Reach At-Risk Communities" section on page 18.

As part of the "National Strategy for the COVID-19 Response and Pandemic Preparedness" the federal government and CDC will be conducting outreach and education campaigns with local governments around the vaccine. The CDC will be producing toolkits to help local governments give trusted messengers and leaders the information and tools they need to talk about vaccination with others in the community. Mayors should monitor for these new resources as they become available.

BEST PRACTICES FOR COVID-19 VACCINE COMMUNICATIONS FROM CITY HALL

Throughout this pandemic Mayors nationwide have stepped up to the challenge of communicating public health guidance to residents. As they add the responsibility of communicating about the COVID-19 vaccine to their public engagement, Mayors should use these best practices to be confident they are addressing this complex topic effectively. These practices have yielded measurable improvements for cities' COVID-19 communications. Specifically, these practices have been rigorously shown to improve people's ability to recall and understand the main message, their intent to undertake the recommended action, and their sentiment towards the message.[i]

Best Practices

Keep messages simple, clear, and actionable.

When it comes to public health, people understand and remember messages better when they are simple and short. Research on communicating COVID-19 guidelines and public health information (e.g., proper handwashing technique) finds that "less is more" and striking a balance between telling people what they need to know without overloading them with detail leads to higher retention.[10] Try to focus on one main point at a time and use as few words as possible.

Make it easy for people to understand what to do.

Avoid complex language. Be simple and precise with your messages. This will help your message spread equitably to populations that are more at-risk and those that are likely more vaccine-hesitant.

If the communication is trying to encourage a specific action, give people the information they need to take that action clearly and simply as possible:

- **Explicitly state the recommended action or behavior.** For instance, "Call the Vaccination Information Line to book an appointment" is more explicit and helpful than "Get the COVID-19 vaccine."

- **Give people the information they need in order to perform the behavior.** For instance, if a communication encourages people to talk to a doctor about the vaccine, provide a toll-free number that people can call.

- **Break complicated behaviors down into clear steps.** Consider using visual aids, such as

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[i] BIT has conducted dozens of online studies around the world to develop COVID-19 guidance. For examples, see a Harvard Data-Smart City Solutions write-up of BIT's work with 12 U.S. cities.

a checklist or picture for each step. For example, if information on vaccine availability is changing regularly, you could break down instructions for how to stay up to date: "1. Check this website for the current status, today. 2. Sign up for email or SMS notifications that will tell you when you will become eligible 3. When you become eligible, click on the link in your email or SMS to learn what vaccination site you can use."

Use local facts, tell stories, and evoke constructive emotions.

People often find personal stories and examples more compelling than factual statements, particularly abstract ones, and health communication scholars recommend these approaches to increase vaccination.[11] Telling an anecdote or making an emotional appeal that evokes constructive emotions like pride, hope, and parental love (rather than fear or shame) can increase the persuasiveness and recall of pro-vaccination messages.[12] [13]

> Example: Talk about a local family's experience with COVID-19 or a healthcare worker's endorsement of the vaccine.

Use local facts and figures whenever possible as these can make information more relevant to residents (see the "COVID 19 Vaccine Toolkit: Data & Monitoring Strategies" module).

> Example: Stating the total number of vaccines given in the U.S. is less impactful than telling people that almost 1,000 healthcare workers and seniors in their county have been safely vaccinated.

> *"Information is good. Maybe percentages. Thirty percent of people get a headache, 12% of people have experiences but 98% people will be immune to COVID. Something like that, where it's very clear that even though the percentages, 20% get this, at the end you're going to be immune or protective."*
>
> - Latina focus group participant[i]

Provide a rationale for recommended actions.

Provide a rationale for recommended actions, giving people a "why" they should do what you are saying, while still keeping it simple. Explanations that highlight helping others or "prosocial" motivations, such as protecting elders in their family or community, are often particularly effective.[14] [15] [16]

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[i] BIT conducted 9 focus groups from December 28, 2020 - January 5, 2021 with people who had not yet decided to get the COVID-19 vaccine.

> *"So, you know, like tugging on those heart strings and making me think about protecting my dad or whatever and maybe having to worry that I bring anything over there. That kind of makes me feel like, OK, yes, I guess that's a reason to do it."*
>
> *- Latino focus group participant[i]*

Repeat key messages.

Repetition helps people remember communications and build trust over time.[6] This is important as people will be exposed to a lot of information about the vaccine, some of which will be conflicting or confusing. Therefore it is essential that accurate, actionable information reach your residents and be absorbed. As people are repeatedly exposed to a message, they may see it as more credible and be more likely to remember it.

> Example: Use your communications to amplify messages from county, state, and federal public health agencies, such as state vaccination task forces and the CDC.

Highlight social norms in favor of vaccination.

People look to others - what they think and do - as a source of information about what they themselves should do. When social norms are in favor of vaccination (i.e., people have begun receiving the vaccine and/or have stated their willingness to do so), highlighting these can increase uptake. If you have access to this information (e.g., local survey data or service use statistics), sharing it can increase uptake in the community.

> Example: "A recent poll we did showed that 84% of people in our city plan to get the vaccine."

Do not reinforce social norms about behaviors or beliefs that you do not want to encourage. (E.g., "I know there is widespread concern about side effects..." or "one in four say they wouldn't get the vaccine.") This can end up increasing that behavior.

Center equity and make messages accessible to all residents.

This includes considerations such as:
- Provide written materials in all commonly spoken languages
- Use multiple media platforms and formats, including those that will reach people without

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[i] BIT conducted 9 focus groups from December 28, 2021 - January 5, 2021 with people who had not yet decided to get the COVID-19 vaccine.

internet access, such as posters/flyers, television ads, or radio content
- Use culturally appropriate messaging specific to the intended audience and use trusted messengers
- Use a sign language interpreter for all briefings and appearances
- Have an interpreter for commonly spoken languages present at briefings and appearances
- Include captions for all briefings and appearances, as well as for clips that will be distributed
- Use bolding or underlining to highlight or differentiate information instead of relying on color
- Ensure that written documents are compatible with screen reading technology and use alternative text for images when possible, including for online resources

Activate trusted messengers and community leaders.

Activate trusted messengers and community leaders to reinforce your messages and better reach communities that may be disconnected from official city or the Mayoral channels. See guidance on engaging and deploying trusted messengers on page 22.

Use vaccine-related language that resonates with the public.

The Ad Council and COVID Collaborative have produced a list of recommended terms and language based on research with focus groups.

Exhibit 1

CONSUMER LANGUAGE DO'S & DON'TS

DO SAY	DON'T SAY
COVID Vaccination	COVID Injection or shot
A safe and effective vaccine	A vaccine developed quickly
Authorized by FDA based on clinical testing	Operation Warp Speed; Emergency Use Authorization
Get the latest information	There are things we still don't know
Keep your family safe; keep those most vulnerable safe	Keep your country safe
Public Health	Government
Medical experts and doctors	Scientists
People who have questions	People who are hesitant, skeptical, resistant, or "Anti-vaxxers"

Additional Tips for Print and Digital Communications

As they have throughout COVID-19, cities will produce print and digital content to equip residents with the information they need to keep themselves healthy. This guidance will help maximize their effectiveness in communicating key vaccines guidance.

### 1. Put the key action or message at the top

Place lower on the page all other types of content, including city name, logo, greetings (e.g., Attention Residents), titles or subject lines that are not action-oriented (e.g., Vaccine Availability Update). While we are used to putting titles, headers, or preambles in emails, reports, and other written documents, these are counter-productive when encouraging a behavioral change. Many readers will only read the top line, and so it must contain the action you would like them to take (e.g., "Make a COVID-19 vaccination plan today").

2. Use images and graphics

Whenever possible, use images, symbols, and pictures to support and reinforce the message. This is particularly important when communicating about numerical concepts, such as the risk of contracting COVID-19, to give your statement an emotional or visceral appeal as well. When using photos, representation matters, and you should depict people who your target audience will identify with in terms of their race, gender, and age.

For example, the following poster employs minimal text and attention-getting images to provide hand washing directions. A recent study showed that people remembered it better, liked it more, and were more likely to say they would wash their hands after seeing it than text heavy alternatives.[8]

Exhibit 2
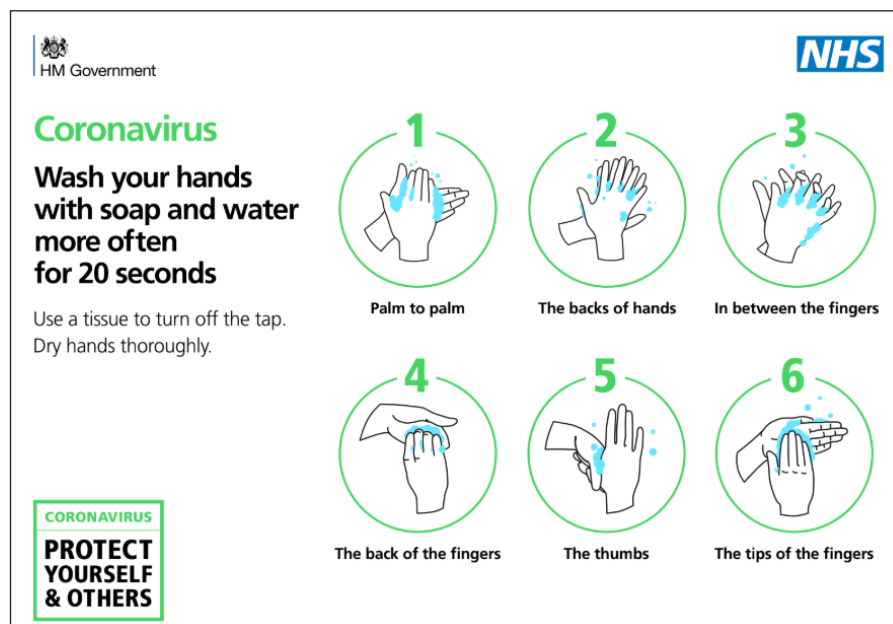
3. ### Group related items and separate text into chunks

When information is presented in discrete sections, it is easier to process and understand. For instance, organizing information into bullets and lists is more efficient and clear than presenting people with large blocks of text.

4. ### Test what works

These tips are derived from data-driven research work on COVID-19 communications, but you can further refine this guidance for your city with commonly used evaluation tools like A/B testing. Testing the performance of alternate messages on a behavior or outcome is recommended and additional detail is found in the "The Importance of Rigorously Testing Vaccine Messaging" section on page 31.

Responding to Emerging COVID-19 Vaccine Concerns

Mayors are used to rapidly responding to crises. Evidence-based tactics can help Mayors respond to emerging COVID-19 vaccine concerns effectively in-the-moment, even on technical topics where they are not likely to be the expert (e.g., concerns about rare side effects). Use these questions to guide formulating a response to vaccine concerns as they emerge:

1. ### What is the primary issue being raised?

- **Gather information** about the specific issue related to vaccines that is being raised. Find out more about what people in your community are saying.

2. ### What is the underlying concern?

- **Seek to understand the motivation or underlying vaccine concern** that people are raising. For instance, when people talk about allergic reactions, the underlying concern is about vaccine safety.

- Understanding what motivates people can help establish common ground. While you may not have a concrete answer, this opens the door for acknowledging their concerns and building common ground.[17]

3. ### How can I address underlying concerns?

- **Acknowledge the concerns and make people feel heard.** When people feel their concerns are being ignored or minimized, it can damage trust and undermine communication about the vaccine.[i]

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[i] For example, when people are told that vaccines have no risk and feel that their concerns are not being heard or addressed, this can decrease willingness to be vaccinated.[16] [17] French et al. (2020) suggest appealing to values, active listening, and encouraging dialogue can facilitate vaccine uptake by increasing trust. [8]

- **Seek to establish common ground.** Even if you are unsure about or disagree with the claim, acknowledging the underlying concern can facilitate common ground and help to maintain trust. Build on this common ground by making appeals to the shared underlying concern (e.g., the desire to protect the community) and framing the vaccine as a way to mitigate these concerns may help encourage uptake.[16]

4. What do I already know?

- **Are there existing resources?** Involve additional messengers to help (e.g., public health leads, medical professionals) when needed. If there are resources that address the underlying concern, adapt or use these to craft Mayoral responses.

- Refer to the CDCs Crisis & Emergency Risk Communication principles for additional information: https://emergency.cdc.gov/cerc/

- Monitor the CDC website for updated public health guidance

5. What do I not know?

- **Be transparent.** You do not have to know everything. State what you do not know and acknowledge when there is uncertainty. Although it may seem counterintuitive, being transparent is crucial to building trust.[i]

- **Outline what you will do** to learn more or address the concern and give people information about what they can do to stay safe in the meantime.

- **Refer to the relevant Department(s) of Health and local experts,** particularly when the issues are medical or scientific.

- **Refer to the relevant federal experts,** such as the federal COVID-19 Response Team briefings and updated guidance from the CDC and National Institutes of Health.

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[i] Best practices for communicating science to lay audiences emphasizes transparent open communication, especially when facts are unknown, and flexibility in face of changing conditions/information. For issues where the answer is not known, trust and efficacy is enhanced when paired with actionable steps that will be taken to find out the answers.[18]

HOW TO REACH AT-RISK COMMUNITIES

African Americans, Latinx Americans, and Native Americans suffer disproportionately high COVID-19 infections and deaths (e.g., the mortality rate for Black Americans is 2.1 times higher than that of whites).[21] Systemic inequalities have shaped the nature of COVID-19 responses and the provision of services in ways that have failed to adequately support these communities (e.g., many communities of color have reduced access to testing sites and longer wait times for test results).[22]

Vaccination is particularly important for disproportionately affected communities and they must be prioritized when planning for distribution. However, as a result of current inequities, historical treatment, and other community-specific concerns (e.g., memory of the Tuskegee experiment; fear of immigration officials), many of these communities have lower trust and confidence in the COVID-19 vaccine. Messaging content and approaches must be tailored to these communities, contextualized within this history, and delivered by trusted messengers in order to reach them effectively. This guidance is informed by new research that considers health inequities in historical responses to pandemics to inform responses to COVID-19.[i]

Best Practices

Invite a representative group of community leaders to COVID-19 vaccine stakeholder group.

Invite a representative group of community leaders to COVID-19 Vaccine stakeholder group (or use an existing COVID-focused stakeholder group). You know your city. Use your understanding of city stakeholders to determine which community leaders to activate and learn from. These community leaders should be representative of the population and should be well positioned to share information within key social networks in your city. Some or all of these actors may already be involved in the city's COVID-19 response. Continue to activate and empower existing leaders. Be intentional about activating and empowering additional leaders who are not currently involved in the City's response.

- Groups to consider: faith leaders, small business owners, healthcare workers, organizers, trade associations, and non-profit and community-based organization leaders. Faith leaders are particularly important for older age groups and vaccine hesitant minority communities.

Situate efforts to vaccinate within the historical arc, contextualizing current disparities in vulnerable communities and acknowledge past harms.

Vaccination can't be the only goal. This effort has to be a part of addressing structural inequities and a long-term commitment to communities of color using a restorative justice framework.[23] Larger social inequities need to be considered in tandem with the COVID-19 crisis. Mayors should acknowledge national and local past harms caused by government, scientific, and healthcare institutions, such as the "Tuskegee Study." Being clear and transparent will help build trust both during this vaccination effort and over the long term.

Seek to understand communities' COVID-19 vaccine concerns.

National data is helpful, but may not always map to specific cities and communities. Beyond the community stakeholder group, Mayors should work with the county or city public health department to set up a COVID vaccination hotline, email address, virtual events, and open dialogue with community leaders to field and speak to residents' questions and concerns.

Recognize the contributions and inherent strength in these communities.

In conversation with community leaders and residents more generally, it is crucial to acknowledge the contributions of frontline workers in communities of color as well as in the communities themselves. Focus on the strengths, both in verbal statements (e.g., examples of resilience and generosity) and - just as importantly - when creating community-specific vaccination plans (e.g., build on existing networks, such as communities of faith). Do not focus on perceived weaknesses, which can reinforce negative outcomes and behaviors, and justifiably generate resentment given the historical and current experiences of these communities.

Use participatory governance best practices.

Be sure that stakeholder group members are in the driver's seat using participatory governance best practices.[i] [24] The task force should solicit early and consistent involvement from community participants - instead of telling them what to do, Mayors should include them in the decision making process (they know their communities best, so they will know what will work on the ground and what won't). This will help Mayors build trust and create strategies and messaging that are culturally sensitive and relevant. Early insights from our focus group with community-based organizations indicate that they have a pulse on the concerns of their communities, they are viewed as trusted messengers, and they have ideas about how to effectively communicate with hard-to-reach groups.

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[i] For more information, the World Health Organization provides a series of webinars and resources on participatory governance, https://www.who.int/activities/promoting-participatory-governance-social-participation-and-accountability, and Effing & Groot (2017) outline strategies for e-participation that Mayors may adopt during the pandemic, https://hal.inria.fr/hal-[01636462]/document

Show your commitment and be consistent.

Use a restorative justice framework to acknowledge and make amends for the structures contributing to disadvantages in these communities, as they contribute to disparities in COVID-19 outcomes. Take a broader lens towards protecting communities of color against racism and structural inequality, and narrowing the gap between those most and least privileged. Mayors should have and communicate a genuine commitment to these issues, and raise public awareness around the need for equity.

Solicit ongoing feedback, regularly surface barriers to vaccine access, and co-create solutions.

Your community leaders will be best positioned to notice barriers to vaccine uptake in their communities. For example:

- Does a certain neighborhood have a long drive to a local distribution site?
- Are the locations optimized to match the transportation modes of community members (near public transit, sufficient parking, not drive-up only, etc.)?
- Are there long wait times or fewer vaccine administrations at certain distribution sites?
- Do the hours of operation match the community needs?
- Are there sufficient resources in all needed languages (flyers, translators, signs, etc.)?

Ensure barrier identification is a standing agenda item for all meetings of your local vaccine task force to surface barriers throughout the rollout process. For each barrier that comes up, examine and discuss why the barrier exists.

In addition to surfacing barriers, brainstorm and co-create solutions with community stakeholders. For many community-specific issues, community members themselves will be best-placed to offer effective fixes that may not immediately occur to city staff. In some cases, bringing about a solution may involve the Mayor advocating for resident needs to other government entities, such as the county health department, the state, and the CDC. For more on addressing practical barriers to access, see the "The Mayoral Role in COVID-19 Vaccine Messaging" on page 8.

Recognize your own limitations as a messenger.

There will be communities that do not trust political leaders. In these cases, it will be important to consider other messengers. See guidance on "How to Engage and Deploy Trusted Community Messengers" in the following section.

Look for other ways to engage community groups about the vaccine.

There is no one-size-fits-all approach that will work for every community.

- **Host information sessions** to provide communities with information and solicit feedback on plans to distribute the vaccine. In BIT's focus groups with community-

based organizations (CBOs), CBOs leaders suggested Mayors and public health officials hold webinars or listening sessions with them to relay up to date, specific information and answer questions. Ideally, these information sessions should include medical professionals with a similar background as the community members who can answer questions.

> *"We've had panels at the church with representation from the health department locally that helped answer questions, offered some opinions so that helped a lot."*
>
> - Black female focus group participant[i]

- **Solicit initial and ongoing feedback** from community groups about vaccine distribution. Establish channels for regular, two-way communication throughout the distribution process. For example, Dayton, OH has weekly hour-long question and answer sessions with local faith leaders where they ask questions reflecting what they're hearing from their community and city staff respond with answers in a timely fashion.
- **Encourage social sharing by vaccine recipients** and gather testimonials for distribution by trusted community channels.

> *"They'll definitely trust someone in their family if they've gotten it, and they'll definitely reach out and trust them."*
>
> - Healthcare provider in community-based center[i]

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[i] BIT conducted 9 focus groups from December 28, 2020 - January 5, 2021 with people who had not yet decided to get the COVID-19 vaccine.

HOW TO ENGAGE AND DEPLOY TRUSTED COMMUNITY MESSENGERS

Disseminating information through trusted messengers is a key part of increasing vaccination uptake.[8] People give different weight to information depending on who is communicating it to them. For example, people are more receptive to messengers that come from sources who are similar to them, such as someone who is seen as trustworthy and credible in their community, and are more influenced by people who are perceived as experts. This may not always be the mayor. Empowering trusted local messengers will be key to fostering confidence in the safety and efficacy of the vaccine and increasing residents' motivation to get vaccinated.

In general, representatives from the medical and scientific communities are highly trusted messengers[25 26 27 28 i], as are community leaders (e.g., faith leaders)[29], perceived experts[30], in-group members and people who are demographically similar (to the recipient).[31] Employing more than one trusted messenger can strengthen communications.[8] This is particularly important for communities that mistrust and / or have poor relationships with the government and medical institutions, particularly marginalized people (e.g., homeless) and communities of color (e.g., African American, Latinx) as they are disproportionately impacted by COVID-19[32] and have high levels of vaccine hesitancy.[33 34]

However, it is important that messengers are matched to the audience (e.g., members of the same community), are equipped with the best facts and resources the Mayor and others can provide them, and that messengers who have been inconsistent in their position on the vaccine / in their past messages are not used, as this can create confusion and undermine the message.[35]

Best Practices

1. **Leverage your COVID-19 or vaccine-focused community stakeholder group.** Important messengers should be part of that group.

2. **Co-create a communications plan,** including campaigns, that leverage community messengers: Develop a plan to share communications about the safety and efficacy of vaccines with your communities. Be sure that stakeholder group members are in the driver's seat using participatory governance best practices.

The Biden administration is launching a National COVID-19 Vaccination Ambassadors Program, which will promote the experiences of people who have received the vaccine, and which Mayors can amplify and point residents to. The CDC is also producing a toolkit with

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[i] Note: This may not be equally true for all people. For instance, communities of color and marginalized populations such as homeless people, may have higher levels of mistrust and less access to healthcare providers, meaning that alternate messengers may be more important for these individuals.

guidance on how to develop local ambassador programs, which Mayors can employ.

3. **Answer trusted messengers' questions and solicit ongoing feedback on vaccine distribution.** When activating messengers, provide access to public health or medical experts so that messengers can have their own questions addressed and learn how to communicate vaccine-related information to others.

4. **Ensure trusted messengers have talking points, printed, and digital materials.** Engage with your stakeholder group to disseminate positive, factual messages about the vaccine. Provide messengers with accurate information and materials (e.g., flyers/graphics, videos, logistical information, links to official sources for in-depth information) to ensure they are equipped to support the community.

   - As the rollout goes on, some messages may prove to be more effective than others for specific groups. The Abdul Latif Jameel Poverty Action Lab (J-PAL), alongside the Center for Diversity and Inclusion of Massachusetts General Hospital and over 40 physicians from MGH and the Lynn Community Health Center evaluated video health messages targeting the specific concerns of Black and Latinx communities. J-PAL's findings and messages can be found here.

   - US Digital Response conducted in-depth research with trusted messengers to see what types of information they find helpful and produced a set of recommendations, which can be found here.

5. **Empower community messengers to respond to misinformation** or the spread of rumors in their communities (see "Best Practices and Tools for Countering Misinformation" on page 27).

6. **Provide a platform for community messengers.** Create opportunities for trusted messengers and experts to engage with the public through various channels. For example, the Mayor and a trusted messenger could go on local radio or participate in panels at cultural or religious centers. Some communities may not be gathering in person or may be more likely to get their information online (e.g., younger demographics), so online and social media outreach is important. For example, host a Facebook live or Reddit AMA ("Ask Me Anything") session where the Mayor brings together trusted messengers and/or experts to answer questions from the community.

7. **Messengers should publicly model getting vaccinated.** Community leaders should:

   - Be willing to take the vaccine and recommend it to their family and friends

   - Be public about their experience

   - Display trust in the vaccine and in healthcare professionals administering the vaccine (e.g. "I am in touch with Dr. ___ and we are all in this together")

   - Highlight people from their specific communities who have participated in vaccine trials (and activate them as messengers, if there are local examples). This is especially important for at-risk communities

Special Considerations about Healthcare Workers as Messengers

It is essential that local healthcare workers are active messengers. In surveys about COVID-19, healthcare workers, scientists, and researchers are consistently the most trusted messengers across political parties, race, and other demographics. Healthcare workers and providers play a key role in persuading individuals who are undecided about vaccination, both in their official roles and as members of their social networks. Mayors should therefore work to activate healthcare workers of all types in their communities to serve as messengers about the vaccine, if they are not already active.

Activating healthcare providers as messengers about the COVID-19 vaccine is important as medical professionals, particularly those with existing relationships to an individual or community, are among the most trusted sources of vaccine information.[26] Recommendations from health care providers are a critical predictor of vaccine uptake[36] and provide a channel to facilitate discussions about vaccination.[i]

However, Mayors shouldn't take for granted that all healthcare workers intend to receive the vaccine. **While this may surprise some, a sizable minority of healthcare workers (between 16% and 36%) do not intend to get the COVID-19 vaccine.** [37] [38] Education about vaccine hesitancy, including opportunities to ask questions, should specifically target healthcare workers and providers. Changing their perspective is important not only for their own health, but also for the broader community that they interact with, as healthcare provider attitudes and outcome expectations impact likelihood of recommending vaccination to patients.[39] [40] As a part of reaching out to healthcare workers and asking them to serve as messengers and advocates for the vaccine, Mayors should also educate and influence any healthcare workers who might be hesitant themselves in the process.

Develop strategies to mobilize healthcare workers in collaboration with healthcare professionals that are adapted to meet the needs of your community. Mayors should:

Reach out to a broad array of local healthcare organizations

Reach out to a broad array of local healthcare organizations to reach a diverse set of healthcare workers. In addition to doctors and nurses, involve other types of healthcare workers, as well as those who work in settings outside of hospitals and medical practices (e.g., outreach and community mental health workers, personal support workers, social workers, home care providers). This will increase the number of workers who can talk to people about vaccination and is particularly important to reach people who do not have a family doctor or access to healthcare resources.

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[i] Multimedia outreach involving education, adverts, social media, events, and the distribution of a Handbook to providers successfully vaccination knowledge, perceived importance, and rates to over 90% in Australia.[40]

Solicit initial and ongoing feedback from healthcare workers

Solicit initial and ongoing feedback from healthcare workers about vaccine distribution — for example, including a representative in your task force or in your community stakeholder group. Involving healthcare workers in the planning stage of your messaging efforts can increase buy-in.[i] Establish channels for regular, two-way communication throughout the distribution process.

Address healthcare workers questions and concerns.

The Ad Council and the COVID Collaborative developed resources designed to address healthcare professionals' questions about COVID-19 vaccination. Organized in the form of a toolkit, the resource includes videos (featuring Dr. Anthony Fauci and other leading healthcare experts), a press release, FAQs, talking points, social media posts, and many customizable materials. Topics addressed include safety, availability, cost, side effects, vaccine administration, answering patients' questions, and more. Mayors can provide local healthcare organizations these materials, and encourage them to send the videos to their employees to address their concerns and deploy other educational programming.

Provide messaging materials specific to healthcare workers.

This could include both materials that Mayors develop and external resources, such as posters, pamphlets, and digital content that providers can post in their offices and share with patients. These materials should cover basic information about the vaccine and information about how to talk to patients about the vaccine (e.g., Ad Council's resources and CDC's Building Confidence in COVID-19 Vaccines Among Your Patients). Healthcare organizations may already have some of these materials, but Mayors are connected to multiple channels of valuable information — particularly from trusted messengers and the community — and are well positioned to ensure that materials are widely distributed, including through healthcare organizations. Healthcare organizations can provide information on outreach efforts or sessions that trusted messengers may be hosting, as well as send representatives with clinical expertise to field questions from the community.

Healthcare providers themselves are exposed to many sources of information, which may include inaccurate or misleading information about the vaccine. When possible, Mayors should amplify messages from local, state, and federal health agencies (e.g., CDC) and connect healthcare providers to reliable resources so they can promote the vaccine to others.

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[i] Healthcare providers may need support to manage the quickly evolving vaccine environment as well as changing public, especially those who are reluctant or refuse vaccination. Some recommended strategies included strengthening trust between healthcare providers, health authorities and policymakers, through more shared involvement in the establishment of vaccine recommendations.

Encourage healthcare workers to advocate for the vaccine.

Encourage healthcare workers to advocate for the vaccine outside of their official roles, reaching out to friends and neighbors who are vaccine hesitant in an unofficial capacity. This will broaden the reach of healthcare messengers beyond those who regularly receive healthcare, or who may be hesitant about medical settings.

> *"I know a lot of people in the healthcare industry. Seeing them get it made me feel a little more comfortable."*
>
> - Black female focus group participant[i]

Plan outreach efforts or campaigns.

Plan outreach efforts or campaigns, such as Vaccine Awareness days, that involve healthcare workers and organizations as messengers. Encourage healthcare providers to proactively reach out to their patients to have conversations about the vaccine. If events are organized by healthcare organizations, lead by example and publicize Mayoral attendance and support.

> *"The doctor is not recommending it to us. My primary care physician hasn't reached out to me and said, you should get the vaccine."*
>
> - Latina focus group participant[i]

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[i] BIT conducted 9 focus groups from December 28, 2020 - January 5, 2021 with people who had not yet decided to get the COVID-19 vaccine.

BEST PRACTICES AND TOOLS FOR COUNTERING MISINFORMATION

Misinformation can decrease individuals' willingness to get vaccinated and undermine confidence in the safety and efficacy of the vaccine. Surveys show that belief in vaccine and COVID-related misinformation is higher in at-risk communities. Mayors can use evidence-based methods to "prebunk" misinformation to prevent its spread, work with public health officials to debunk misinformation that is spreading, and foster resilience against the negative effects of misinformation. The Biden administration's COVID-19 Response Office plans to monitor misinformation campaigns and deploy science-based information in response (see "National Strategy for the COVID-19 Response and Pandemic Preparedness.").

COVID-19 Vaccine Misinformation is Widespread and Damaging

Definition: "Misinformation is false information that is spread either by mistake or with intent to mislead."[42]

Misinformation about COVID-19 is widespread and harmful to vaccine uptake and other protective measures (e.g., mask wearing).[43] From a vaccine equity standpoint, surveys show that belief in vaccine and COVID-related misinformation is higher in at-risk communities.[44] Belief in misinformation can distort perceptions of risk and undermine public health advice, so proactively and reactively addressing misinformation is crucial for maintaining support for key public health behaviors.

The Mayoral Role in Countering Misinformation

Mayors, local public health officials, and community-based stakeholders are all well-placed to detect and address misinformation circulating in their communities.

Public health officials, rather than Mayors, should take on the primary role in debunking misinformation, getting into details of particular myths and explaining why they are not true. Many COVID-19 vaccine myths rely on misunderstandings of vaccine technology and public health officials have the necessary expertise and credibility to explain how vaccines work. Additionally, we know from survey data that U.S. residents place the most trust in their own healthcare providers and in national and local public health officials on medical topics.

The Mayor's role in combating vaccine misinformation is therefore primarily:

1. Warning residents that misinformation is coming, preparing them to detect it, and amplifying messages that are true ("pre-bunking" and "inoculating", described in more depth below).

2. Monitoring what misinformation is spreading locally and working to combat it with public health officials.

Best Practices and Tools for Combating Misinformation

Mayors and public health officials should use the following practices to mitigate the negative effects of misinformation:

1. Pre-bunk and "Inoculate"

Pre-bunking, or pre-emptively debunking misinformation, is easier than dealing with it after it has spread. It involves:

- Warning people that misinformation is coming and individuals may expose them to misinformation for personal gain or due to legitimate worries about vaccine safety. Note: Mayors should avoid describing vaccine opponents or vaccine hesitant individuals spreading misinformation with pejoratives, as many spread misinformation as a consequence of legitimate concerns about vaccine safety and pejoratives can be polarizing.

- Providing information about the techniques that are used to spread vaccine misinformation to help "inoculate" residents[i]:

    - **Impersonating experts or citing "fake experts"** to create the illusion of a lack of consensus about the safety of the vaccine.

    - **Using emotional language** that plays into basic emotions such as fear, anger, or empathy, in order to gain attention or frame an issue in a particular way.

    - **Group polarization**, amplifying existing grievances and tensions between different groups in society, like political differences, in order to garner support for or against partisan viewpoints and policies.

- Providing counter-arguments and strategies to refute misinformation in advance.[45] For example, much of vaccine misinformation is on the topic of side effects, and so Mayors could repeat information that is true from clinical trials and direct the public to credible sources to learn about side effects.

    - The authors of the COVID-19 Communication Handbook have a wiki with COVID-19 specific vaccine-related misinformation paired with counter-arguments.

Mayors should also promote the GoViral! online game. Developed through a collaboration between the University of Cambridge, Drog, Gusmanson, and the UK Cabinet Office, GoViral! is a 5-minute game shown to protect users against COVID-19 misinformation.[46] It teaches users about the common strategies used to spread false and misleading information about the virus and helps them resist them the next time they encounter them online.

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[i] Techniques adopted from: Roozenbeek, J., & van der Linden, S. (2019). Fake news game confers psychological resistance against online misinformation. *Palgrave Communications*, 5, 1-10.

2. Consistently amplify fact-based information

Consistently amplify fact-based information in partnership with local public health officials to crowd out misinformation. Once it takes hold, misinformation is hard to dislodge. Communicating consistently about the vaccine will reduce the amount of misinformation that sticks.

- Mayors should make sure that city websites link to local or county health department or CDC vaccine information resources.
- Mayors should encourage healthcare providers to proactively communicate with patients about the safety and efficacy of COVID-19 vaccines.
- Mayors, public health officials, and community messengers should proactively provide accurate information via multiple channels that is tailored for specific communities, especially those with higher rates of belief in COVID-19 misinformation. See "How to Engage and Deploy Trusted Community Messengers" on page 22.

3. Monitor

Monitor for misinformation that is spreading locally. Gather information from your COVID-19 or COVID Vaccine community stakeholder group, as well as from community leaders, particularly those who are connected to vulnerable or at-risk populations.

- Your stakeholder group agenda should feature a discussion of emerging reasons for vaccine hesitancy as a regular item and specifically probe for myths, misconceptions, and rumors.
- Provide feedback and updates on local misinformation to local public health officials and strategize how to respond.
- As of late January 2021, there is no online CDC resource for tracking COVID vaccine misinformation. However, the CDC does maintain a "Facts about COVID-19 Vaccines" page to counter known myths. The authors of the COVID-19 Communication Handbook also have a wiki with COVID-19 specific vaccine-related misinformation paired with counter-arguments.

4. Debunk regularly

For misinformation with a substantial scientific dimension, which is likely to be most COVID vaccine misinformation, Mayors should rely on local public health officials to debunk in their official capacity, in addition to amplifying trusted national officials such as Dr. Anthony Fauci, CDC, the National Institute of Allergy and Infectious Diseases, the Surgeon General, and President Biden's COVID-19 task force. Mayors should make sure local public health officials are communicating with local healthcare providers about the need for addressing misinformation.

Ensure that debunking happens over multiple channels, such as press conferences, digital and print materials, and community outreach (e.g., conversations with stakeholders and representatives from at-risk communities). Mayors and public health officials should also prepare community messengers to debunk effectively when they encounter common misinformation.

In order to debunk a specific piece of misinformation:

- Start with the facts so as not to reinforce the misinformation

- Warn about the myth (but mention it only once)

- Explain in detail why the misinformation is false or misleading. Avoid scientific jargon and complex, technical language

- Reinforce the facts

- Provide the correct information and direct people to credible sources, such as public health officials.

Additional Resources for Combating Misinformation

1. **The Debunking Handbook 2020.** For an in-depth treatment of how to properly debunk misinformation, The Debunking Handbook 2020 is an in-depth guide to combating misinformation written by experts who specialize in debunking. This can be used by city staff and shared with community stakeholders.

2. **The Conspiracy Theory Handbook** explains why conspiracy theories are so popular, shows how to identify the traits of conspiratorial thinking, and lists effective debunking strategies. A condensed summary of tips for countering conspiracy theories based on the handbook lives here.

3. **GoViral!** **online game.** Developed through a collaboration between the Social Decision Making Lab at the University of Cambridge, Drog, Gusmanson, and the UK Cabinet Office, GoViral! is a 5-minute game shown to protect users against COVID-19 misinformation.[46] It teaches users about the common strategies used to spread false and misleading information about the virus and helps them resist them the next time they encounter them online.

THE IMPORTANCE OF RIGOROUSLY TESTING VACCINE MESSAGING

Messages intended to increase engagement with vaccine-related materials or drive people to make vaccination appointments, such as emails, social media posts, or SMS reminders, can be rigorously tested for effectiveness. Utilizing rapid A/B tests, or randomized controlled experiments, can yield meaningful improvements in key behavioral outcomes.

For example, early in the COVID-19 pandemic, **BIT partnered with 12 cities to test COVID-19 public health messages** encouraging behaviors such as staying home, wearing face masks, and keeping six feet apart from each other. Testing allowed cities to select message variants that performed best on measures of reader comprehension and intent to comply with the suggested behavior.

BIT has worked with over 55 U.S. cities to launch over 100 rigorous evaluations, many in support of communications strategies. From this experience, we can say with confidence that testing your message is valuable even if you believe that it is already effective. This is for several reasons:

- **Even a little improvement could be a big impact:** On a topic like COVID-19 vaccination that will impact all residents in your city, even a small improvement in your messaging can make a big impact. A message that results in just 3% more people choosing to get vaccinated could result in thousands or tens of thousands of additional people being protected, depending upon the size of your population.

- **Context matters:** We have found that what works in one city may not always work in another.

- **Equity matters:** Cities are diverse, and different populations might react differently to the same message. Testing with specific populations can ensure you are communicating equitably, and in ways that work for each population.

- **Results can be surprising:** Even the best experts cannot accurately predict which message will work best in tough situations, because of all the different contextual and population-specific factors at play. We frequently work with cities who believe they know which messaging option will work best, only to be surprised by the outcome.

Message testing is also low-cost, and not difficult to learn. We have synthesized and packaged our experience testing messages as a free online course which walks participants through the process of designing and implementing a simple email communications trial step-by-step.

Cities are welcome to sign up for this course and use course materials to design their own vaccine-related message testing by signing up through this **Google form**.

Please contact Kelsey Gohn with questions (kelsey.gohn@bi.team).

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