



Association of  
Immunization  
Managers

Lessons from the Field

# PROMOTING VACCINE CONFIDENCE

[immunizationmanagers.org/vaccineconfidenceguide](https://immunizationmanagers.org/vaccineconfidenceguide)

# Vaccine Confidence Toolkit

Access a collection of resources for promoting vaccine confidence! This toolkit is designed to equip public health immunization programs with the tools and information needed to educate providers and consumers on vaccination and build vaccine confidence.



## RESOURCE GUIDE

Outlines key lessons learned from select immunization programs and stakeholders



## WEBINAR SERIES

Features strategies and resources for addressing vaccine hesitancy and promoting vaccine confidence



## MEDIA MATERIALS

Download templates for conducting postcard reminder recall and posting on social media



## TRAININGS

Access workshops focused on building skills to promote vaccine confidence



## RESOURCE LIBRARIES

Browse this collection of resources and tools for promoting vaccine confidence

[immunizationmanagers.org/vaccineconfidencetoolkit](https://immunizationmanagers.org/vaccineconfidencetoolkit)





## Introduction

Vaccine Confidence is “the belief that vaccines work, are safe, and are part of a trustworthy medical system.” Efforts to build vaccine confidence have always been an essential pillar of a successful immunization system and the key to getting shots into arms. However, even prior to the COVID-19 pandemic, vaccine hesitancy was a substantial challenge; the World Health Organization (WHO) declared vaccine hesitancy as one of the top 10 threats to global health in 2019. The COVID-19 pandemic has been accompanied by a rampant increase in the spread of incorrect vaccine information and negative public attention towards vaccination – sowing doubt about the effectiveness and safety of vaccines and trust in the medical and scientific communities.

Now more than ever, it’s vital immunization programs (IPs) have the resources and tools needed to continue the work of building vaccine confidence in our communities. This guide provides key lessons learned from select immunization programs and stakeholders with experience addressing vaccine confidence and vaccine hesitancy in their communities. The guide serves to educate IP staff and can be used to help generate ideas and inform management strategies for promoting vaccine confidence across the nation and territories.

## NOTE

There is some variability to terminology found throughout available guidance and literature. Below are the terms used in the guide, their definitions, and similar terms:

Term used in the resource	Definition	Similar terms used in research and by organizations
<b>Vaccine Opponent</b>	Individual that opposes all vaccines—no probability of changing their mind	Vaccine Denier, Anti-Vaccine
<b>Vaccine Hesitant</b>	Individual that delays vaccination due to concerns about the safety and/or spacing of more vaccines—possible to change their mind with intervention	Vaccine Refuser, Vaccine Skeptic
<b>Vaccine Confident</b>	Individual that is confident in vaccines	Pro-vaccine

## How to Use This Guide

This guide is comprised of three chapters, plus online resources.

### **Chapter 1 ..... 7**

*Chapter 1 is designed to help immunization programs minimize the impact of vocal vaccine opposition during legislative and rulemaking processes and maximize efforts to inform policymakers of the value of immunization.*

### **Chapter 2 ..... 39**

*Chapter 2 describes important steps for identifying and engaging with communities at risk for vaccine-preventable diseases in culturally competent ways to manage vaccine hesitancy, particularly in outbreak situations.*

### **Chapter 3 ..... 73**

*Chapter 3 describes important steps for understanding and addressing incorrect vaccine information; summarizes the different types of incorrect information; and provides key insights, and resources to help programs (and their partners) address incorrect vaccine information.*

## ABOUT THIS GUIDE

The development of the Lessons From The Field: Promoting Vaccine Confidence Guide was supported by generous contributions from GSK and was developed under the guidance of an AIM Advisory Board consisting of members and partners. The funder had no input on the content of this guide.

This guide was prepared by AIM staff, Katelyn Wells, Ph.D., in collaboration with Public Health Consultants Emily Less, MPH, and Anne Cowan, MPH.







Lessons from the Field:

# PROMOTING VACCINE CONFIDENCE



## CHAPTER 1

### **The Legislative Process and Other Public Forums**

## Introduction

Immunization programs (IPs) are integral to providing the public with accurate and timely information about vaccines. Public attention to vaccines may be heightened during state legislative sessions when immunization-related legislation is introduced, when states undertake changes to administrative rules, or in public forums such as advisory boards. Increased public attention is driven by the public feedback processes that are built into state legislative and other public forum procedures, as well as the level of media attention generated by legislation or rule changes.

Vaccine opposers increasingly use the opportunity for public input to broadly publicize false information. This may exacerbate vaccine hesitancy among legislators and the public, so IPs must be prepared to provide education and counter this misinformation with vaccine-supportive evidence.

The purpose of this chapter is to describe the steps for educating policymakers during state legislative and rulemaking processes:

### Step 1

P. 10

Understand the state legislative process and rulemaking

### Step 2

P. 14

Understand the IP role in educating policymakers during public forums

### Step 3

P. 22

Provide information to support immunization and promote vaccine confidence

### Step 4

P. 32

Foster supportive partnerships

This chapter highlights key considerations, experiences from the field, IP and stakeholder insight, lessons learned, and resources to help IPs minimize the impact of vocal vaccine opposition during legislative and rulemaking processes and maximize efforts to inform policymakers of the value of immunization.

Information for this chapter was collected via semi-structured interviews with three IPs and two state immunization coalitions, as well as online searches for publicly available resources and supporting materials. Guidance and feedback were provided by an advisory board consisting of AIM members and partners.



## Checklist for engaging in the legislative process

- ✓ **Dealing with legislative sessions, rulemaking, and other public forums can be very time-consuming, hectic, and draining.**
  - Develop and maintain a cadre of staff that can work together to evenly distribute the load.
  - Develop and maintain a broad coalition of partners, such as medical associations, school nurses, state education agencies, local public health departments, and large medical systems. Don't be shy about asking for partner support when allowed.
  - Work with upper management to realign competing priorities.
  - Ensure that IP staff members have adequate mental health support—such as access to an Employee Assistance Program—and take time for self-care.
- ✓ **It is highly unlikely that vaccine opposers are going to change their minds.**
  - Weigh the implications of not responding directly to vaccine opposers.
  - Do not lose sight of the end goal, which is to promote vaccine confidence. Define a strategy and stick to it!
- ✓ **Consistent messaging is important.**
  - Encourage partners to utilize consistent messages.
  - Share information among partners to keep everyone in the loop.
  - Do not get sidetracked by responding in detail to every argument opposing vaccines. Address opposition simply, stay on message and know where to refer people if you do not have an answer.
- ✓ **Be cognizant of state rules and guidance.**
  - Refer to AIM's Immunization Policy Resource Guide for information on the line between education and advocacy.
  - Check with leadership for guidelines on using personal and professional social media accounts, the chain of command for approving communication materials, and policies for IP involvement in immunization coalition activities.
  - Review policies issued by your agency and legislature for addressing direct and indirect security threats.
  - Establish a relationship with key players in state government to understand state rules and procedures, such as rules of engagement with legislators and the role of IPs during public hearings.
- ✓ **Engage your immunization stakeholders and champions in accordance with your state's rules.**
  - Look to immunization coalitions to mobilize support across stakeholders.
  - Encourage partners to include the perspective of those most impacted by proposed legislation or rules, such as parents, health providers, and school administrators.
  - Remember that this is a political process—there may be negotiations and deal-making among legislators that you cannot control.
  - Be aware of the politics within your agency, as well as decision-makers' personalities and relationships.
  - In environments where IP feedback is not requested or considered, find other allowable and appropriate channels for delivering information.
  - Remain focused on the overall goal of protecting communities and reducing vaccine-preventable disease.



## **STEP 1**

# **Understand the State Legislative Process and Rulemaking**

## STEP 1

# Understand the State Legislative Process and Rulemaking

It is important for IPs to understand the legislative and rulemaking processes and the extent to which they can engage.

Generally, new legislation is introduced by legislators based on personal interest and/or at the request of constituents, lobbyists, fellow legislators, and state government agencies. A proposed bill is referred to a specific committee for initial consideration, which is typically a health committee when immunization-related legislation is being considered. If the committee decides to proceed with the bill, it may hold a public hearing and vote on advancing it to the full chamber for debate and a vote. Bills may go through multiple committees. Bills that pass one chamber must then go through a similar process in the other chamber, if relevant, and then receive final approval by both chambers. A bill officially becomes law through signature by the governor or other action.

Government agencies often need to draft new administrative rules or propose changes to existing rules in response to new laws or to clarify existing rules. This typically requires public notice, a public comment period, and public hearing(s), as well as upward review and approval, with final approval given by the governor.

## Key Considerations

- + IPs may not learn about new bills until they are officially introduced and entered into publicly available legislative tracking systems.
- + In some states, a legislator can file a bill draft request (i.e., a brief summary of a planned bill) months before the start of a new legislative session.
- + Designated policy or legislative staff/offices at state health departments, sometimes also at the IP level, monitor newly proposed bills for immunization-related content.

### IMMUNIZATION PROGRAM POLICY RESOURCE GUIDE

#### CHAPTER 1

## Advocacy Rules and the Legislative Process

Learn the basics, including how to distinguish among education, advocacy, and lobbying; an overview of the relevant rules and regulations to ensure appropriate engagement; and fundamentals of the legislative process to guide effective action.



[www.immunizationmanagers.org/PolicyResourceGuide](http://www.immunizationmanagers.org/PolicyResourceGuide)



## EXPERIENCE FROM THE FIELD

### Preparing for Potential Legislation

Our State Department of Health meets internally and with stakeholders to identify anticipated legislative activities, brainstorm about information needed to determine the agency's position on legislation, and align with partner organizations.

- + Be aware that many bills are introduced but may never receive serious consideration, even at the committee level. Your state legislative liaison can help identify and prioritize which legislation is expected to be seriously considered.
- + IPs and immunization coalitions may also hear informally about new legislation through contacts, such as vaccine manufacturers or medical association government liaisons.

## Lessons Learned

- \* **Be prepared.** Notification of new legislation may come at the last minute. Maintain a collection of responses to typical vaccine-opposing arguments that can be adjusted to address specific legislation.
- \* **Use your legislative liaison.** Establish a good working relationship with the relevant legislative liaison for the IP. See chapter 2 of AIM's Immunization Program Policy Resource Guide for more information on working with legislative liaisons.
- \* **Be proactive.** To the extent possible, work with your statewide immunization coalition and other stakeholders in accordance with your state rules to anticipate and discuss potential bills that could be proposed in the next session.



### STAKEHOLDER INSIGHT

“In 2020, our state is looking at the board of health regulations process to see what might be accomplished through regulatory versus legislative changes. The outcome of this review will drive legislative priorities for the 2021 legislative session.”

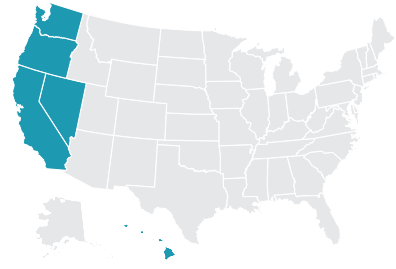
### RESOURCES

#### Overview of state legislative processes:

- AIM Immunization Program Policy Resource Guide, Chapter 1: Advocacy Rules and the Legislative Process <https://www.immunizationmanagers.org/content/uploads/2021/08/aim-vaccine-confidence-guide-chapter1.pdf>
- How a Bill Becomes a Law at the State Level (AAP) <https://www.aap.org>
- National Conference of State Legislatures — Learning the Game <https://www.ncsl.org/research/about-state-legislatures/learning-the-game.aspx>

## EXAMPLES

### Recent Legislative or Rulemaking Efforts in Five States



#### CALIFORNIA

Senate Bill (SB) 276, proposed by the chair of the Senate Committee on Health, would create a review process for medical exemptions by addressing loopholes created by 2015 legislation removing non-medical exemptions. The California Department of Public Health (CDPH) cannot take a position on any bill.

#### STATUS

*Signed by the governor. Effective January 1, 2021, the law authorizes CDPH to review medical exemptions when:*

- ♦ *A school's vaccination rate falls below 95 percent,*
- ♦ *A doctor writes more than 5 medical exemptions per year beginning on January 1, 2020, or*
- ♦ *A school fails to provide reports of vaccination rates to CDPH.*

*Additionally, all medical exemptions must be submitted annually and directly into the California Immunization Registry on a standardized form.*

#### HAWAII

The Hawaii Department of Health proposed changes to Hawaii Administrative Rules, Title 11, Chapter 157, to update the state's immunization requirements for school attendance to align with Advisory Committee on Immunization Practices (ACIP) recommendations. The rules had not been updated since 2001.

#### STATUS

*Signed into law by the governor. Beginning July 1, 2020, additional vaccinations will be required for students entering childcare or preschool, kindergarten, 7th grade (including HPV), and post-secondary schools, as well as any students starting school in Hawaii for the first time.*

#### NEVADA

A Nevada legislator sponsored a bill, referred to the Assembly Education Committee, that would require schools to:

- Annually submit to the Nevada Division of Public and Behavioral Health (DPBH) a de-identified list of students with religious and medical exemptions, and
- In the event of an outbreak, report exempt students' information to local, state, and federal health agencies, as determined by the level of response needed.

It also would require religious and medical exemptions to be submitted annually on a standardized form provided by DPBH.

#### STATUS

*Passed out of the Assembly Education Committee and referred to the Senate Education Committee. Failed to move forward due to the negative impact of amendments made by the Assembly Education Committee.*

#### OREGON

House Bill (HB) 3063, first heard in the House Committee on Health Care, would remove non-medical exemptions with chief legislative sponsors from areas impacted by the 2019 measles outbreak. The governor supported the bill, so the Oregon Health Authority (OHA) was given the green light to support the bill; this is unusual for a bill not introduced by OHA.

#### STATUS

*Died in the Senate after passing the House. Senate Republicans staged a walk-out during state budget negotiations. Democrats agreed to kill the bill, along with a gun control bill, to allow passage of a major tax measure to fund schools.*

#### WASHINGTON

HB 1638, legislation to eliminate philosophical exemptions for MMR vaccine, was first referred to the House Health Care and Wellness Committee. In the Senate, the bill was referred to the Health and Long-Term Care Committee. An amendment was added to require staff and volunteers of licensed childcare centers to be vaccinated against measles. The Washington State Department of Health officially supported the bill.

#### STATUS

*Legislation to eliminate philosophical exemptions for MMR vaccine and to require staff and volunteers of licensed childcare centers to be vaccinated against measles was signed into law by the governor effective July 28, 2019.*





## **STEP 2**

# **Understand the IP Role in Educating Policymakers During Public Forums**

## STEP 2

# Understand the IP Role in Educating Policymakers During Public Forums

This section provides background information on public hearing processes, including legislative hearings, administrative rule hearings, and other public forums. For IPs to understand their role in combatting misinformation and promoting vaccine confidence during public hearings, they need to be aware of how public hearings are structured in their jurisdiction.

## 2.1 LEGISLATIVE HEARINGS

Legislative public hearings are run by legislators and their staff, so IPs and immunization coalitions typically do not have a role in organizing them unless specifically requested by legislators or administrators in the health department. However, most IPs can have a role in sharing information prior to legislative hearings and answering legislator questions, and helping prepare the state health officer or others to testify. In rare cases, immunization program managers can testify.



### EXPERIENCE FROM THE FIELD

#### Promoting Vaccine Confidence During Health Committee Hearings

For the 2019 exemption legislation, the medical director and health agency director provided personal stories in their testimony on behalf of the State Health Department. Other supporters who testified included physician organizations and parents of children with contraindications to vaccines. The IP was not involved in organizing supporter testimony.

## Key Considerations

- + The format for legislative hearings, such as the length, order, code of conduct, and content of public testimony, varies by state.
- + State health departments may or may not be allowed to take an official position on a bill. Your agency's legislative liaison can help you understand the relevant rules, processes, and culture in your state.
- + An IP's role in testifying in public hearings or coordinating or soliciting testimony of immunization supporters can vary. Your agency's legislative liaison can help you understand the relevant rules, processes, and culture in your state.
- + The number of people testifying for or against a bill is often balanced with feedback that legislators receive via emails, letters, visits, and public comments submitted before the hearings.
- + Misinformation about vaccines presented in public testimony becomes part of public record, with no official way to directly counter it.

- + Legislators, health officials, and stakeholders may be surprised at the level of resistance and tactics used by vaccine opposers in response to proposed legislation.
- + In some cases, vaccine opposers may directly harass health officials and immunization program staff. Look to policies from your agency and legislature for addressing direct and indirect security threats.



### STAKEHOLDER INSIGHT

“For the 2019 exemption legislation, the first public hearing was the most intense and publicized. There were hundreds of public commenters and, even given the limits on what they could say (name, organization, and whether for or against the bill), public testimony lasted for 5 to 6 hours.”

## EXAMPLES

### Structure and Process of Legislative Hearings in Three States



First, the bill sponsor calls witnesses for ten minutes of oral testimony, followed by the opposition. Then the meeting is opened for public comment. Discussion is held among committee members, and questions are posed to the bill sponsor/witnesses and opposition/witnesses, then a vote is held. During oral testimony, public comments are limited to name, organization represented, and position for or against the bill. Written testimony and letters of support/opposition can be submitted during a public comment period.



During legislative hearings, the bill is introduced by the bill sponsors, along with any background information needed. Next, the committee can ask questions, followed by public testimony from supporters, opponents, and neutral parties—in that order. The committee does not provide its questions ahead of time to presenters of the bill. Written testimony can also be submitted, as can background information. For the 2019 exemption legislation, Immunize Nevada testified and provided support to the bill sponsor.



The main legislative hearings are held by committees. Committee hearings are typically limited to two hours, which can limit oral testimony. Written testimony and supplemental materials can be submitted. Additionally, a position on the bill can be submitted in-person via an electronic system.

## Lessons Learned

- \* **Do your homework.** Familiarize yourself with the format and protocols of legislative hearings and the potential role of the IP.
- \* **Learn from other IPs.** Leverage experiences of other IPs with recent legislative sessions to galvanize support within your state and prompt leadership to prepare for future legislation that may provoke vaccine opposition.

- \* **Be safe.** Know your agency and legislature’s policies for addressing security threats.
- \* **Use your legislative liaison.** Contact your legislative liaison to understand the relevant rules, processes, and culture in your state.
- \* **Be proactive.** Answering legislators’ questions prior to legislative hearings is particularly important to establish a foundation of vaccine-supportive evidence.
- \* **Be strategic.** For IPs that have a say in who is invited to testify:
  - If state protocol allows, share testimony opportunities across partners to present a variety of perspectives (e.g., clinical impact, public health impact). This will ensure efficient use of the short amount of time allotted for testimony.
  - Try to find people from committee members’ respective jurisdictions to testify.

## RESOURCES

### Examples of legislature-provided guidelines on how to testify to a legislative committee:

- Oregon State Legislature — How to Testify to a Legislative Committee  
<https://www.oregonlegislature.gov/committees/Pages/How-To-Testify.aspx>
- Washington State Legislature — How to Testify in Committee <https://leg.wa.gov/legislature/Pages/Testify.aspx>

### Examples of legislature-provided rules for behavior during hearings:

- Colorado General Assembly Guide to Public Hearings  
[http://www.leg.state.co.us/clics/cslFrontPages.nsf/FileAttachVw/GTPH/\\$File/GuideToPublicHearings.pdf](http://www.leg.state.co.us/clics/cslFrontPages.nsf/FileAttachVw/GTPH/$File/GuideToPublicHearings.pdf)
- Washington State Legislature — House Hearing Room Rules: A Reminder  
<https://leg.wa.gov/House/Committees/Documents/HouseHearingRules.pdf>

## 2.2 ADMINISTRATIVE RULE PUBLIC HEARINGS

Public hearings are generally required for administrative rule changes. Each state has its own rules for running public hearings and related public notice; the Office of the State Attorney General (or similar) can advise IPs on the state-specific rules and procedures for public hearings. The IPs may or may not be involved in public hearings, with responsibilities ranging from running the public hearing or working to provide content expertise to the department of health or other agency. Given recent IP experiences with the turnout and behavior of vaccine opposers in public hearings, it is vital to consider venue space and security measures when planning hearings.



## EXPERIENCE FROM THE FIELD

### Role During Administrative Rule Hearing

Our State Board of Health, separate from the health department, has rulemaking authority and is responsible for running public meetings for administrative rule changes. The IP provides content expertise and works closely with the Board of Health throughout the process.

## Key Considerations

- + Expect crowds and contentious comments.
- + The IP may or may not be allowed to recruit vaccine supporters to testify during a public hearing. It is important to know the rules in your state and, where appropriate, to consider methods of ensuring that pro-vaccine voices are represented.
- + Having adequate security is important for helping participants and organizers feel safe in the presence of hostile vaccine opposers. Note that the presence of security may not discourage attendees from exhibiting disruptive behavior during public hearings.
- + If utilizing a non-government facility to hold the meeting, check the rental space's policy for code of conduct and security provisions.
- + The IP may be responsible for recording, transcribing, and posting hearing proceedings. Transcripts may need to be cleaned before being made accessible to the public to remove profanity.



### EXPERIENCE FROM THE FIELD

#### Running an Administrative Rule Hearing

The IP held administrative rule hearings in 2019 to update school entry requirements. The IP did not have specific written protocols for running a public hearing because they are held infrequently. The program consulted its deputy attorney general to understand the process and obligations under state law. Through its deputy attorney general, the IP requested a hearings officer as well as security (two uniformed officers, one outside and one inside the meeting room). The IP recorded and transcribed the hearing and posted the audio files and transcripts online. Transcripts and written testimony were cleaned before posting, and the following warning was provided with meeting materials:

*"Please be advised that profanity has been redacted from written and transcribed testimony files but was not removed from audio recordings. All testimony (written, oral, and transcribed) may contain language and content that could be deemed as offensive. Testifier's contact information has been redacted in the effort to protect privacy."*

## Lessons Learned

- \* **Provide access.** Consider providing increased public access to hearings, such as airing hearings through webinars or livestreams.
- \* **Trust in stakeholders.** Rely on immunization coalitions and other partners to recruit vaccine supporters who will attend public hearings. Set up this process while you aren't in the middle of legislative sessions or rulemaking.
- \* **Anticipate opposition.** Draft behavior guidelines or a code of conduct that hearing attendees must follow. Use rules suggested by state legislatures as a model.
- \* **Minimize direct conflict.** If there is a choice of meeting format, allow public testimony without a comment-and-response with public officials.
- \* **Be clear.** Instruct hearing officers to provide clear behavior guidelines at the onset of hearings.
- \* **Be prepared.** Know your agency's policies for addressing direct and indirect threats and providing security.



## RESOURCES

- Colorado General Assembly Guide to Public Hearings  
[http://www.leg.state.co.us/clics/cslFrontPages.nsf/FileAttachVw/GTPH/\\$File/GuideToPublicHearings.pdf](http://www.leg.state.co.us/clics/cslFrontPages.nsf/FileAttachVw/GTPH/$File/GuideToPublicHearings.pdf)
- Washington State Legislature — House Hearing Room Rules: A Reminder  
<https://leg.wa.gov/House/Committees/Documents/HouseHearingRules.pdf>
- State of Hawaii, Department of Health — sample notice of administrative rule hearing  
<https://health.hawaii.gov/opppd/files/2018/09/HAR-11-157-Examination-and-Immunization-Public-Hearing-Announcement.pdf>
- State of Hawaii, Department of Health — examples recordings and transcriptions from HAR Title 11, Chapter 157, “Examination and Immunization” Proposed Amendments  
<https://health.hawaii.gov/docd/vaccines-immunizations/har11-157-proposed-amendments>
- WHO Best practice guidance: How to respond to vocal vaccine deniers in public  
[https://www.who.int/immunization/sage/meetings/2016/october/8\\_Best-practice-guidance-respond-vocal-vaccine-deniers-public.pdf](https://www.who.int/immunization/sage/meetings/2016/october/8_Best-practice-guidance-respond-vocal-vaccine-deniers-public.pdf)

## 2.3 OTHER PUBLIC FORUMS

Other public forums potentially involving IPs include state immunization advisory committees. Any public meeting that involves vaccine-related discussion provides an opportunity for vaccine opposers to participate.

## Key Considerations

- + IPs may or may not have guidance on meeting protocols for public meetings.
- + Crowd control and overall meeting management may have to be adjusted in response to increased participation and hostile behavior.
- + The pros (e.g., transparency) and cons (e.g., security and crowd control concerns) of holding non-required public meetings should be carefully weighed.



### EXPERIENCE FROM THE FIELD

#### Logistics of Public Hearings

The state Vaccine Advisory Committee is not bound by public meeting rules but follows them anyway. The IP is responsible for meeting logistics. Each quarterly meeting includes a ten-minute public comment period.



### PROGRAM MANAGER INSIGHT

“Non-required public hearings are a difficult environment to control and are not an effective way to change people’s minds or reach those who are vaccine hesitant.”

## Lessons Learned

- + **Be prepared.** Develop or adjust meeting protocols to anticipate large and vocal vaccine opposition.
- + **Anticipate aggressive behavior.** Work with state attorney general office to ensure that sufficient policies are in place to manage crowds and attendee behavior.
- + **Prevent conflict.** Do not engage in direct arguments with vaccine opposers. Remain calm. Be cognizant that meetings are often recorded by outside attendees and may be posted to their social media or websites.

---

### RESOURCES

- OR: Guidelines for public meetings (start on page 45)  
[https://www.oregonlegislature.gov/bills\\_laws/archive/2011ors192.pdf](https://www.oregonlegislature.gov/bills_laws/archive/2011ors192.pdf)

---

As noted in the WHO's best practice guidance<sup>1</sup>, remember that the objective "is not to try and convince the vocal vaccine denier/objector to change their mind or concede defeat. Instead, the goal of the discussion is to mitigate the negative impact that the denier has on the audience."

<sup>1</sup> Best practice guidance: How to respond to vocal vaccine deniers in public (2016)







## **STEP 3**

# **Provide Information to Support Immunization and Promote Vaccine Confidence**

## STEP 3

# Provide Information to Support Immunization and Promote Vaccine Confidence

### 3.1 INFORMATION FOR THE PUBLIC DURING THE LEGISLATIVE/RULEMAKING PROCESSES

Providing factual vaccine-related information is a core responsibility of IPs during the legislative/rulemaking process. This may include addressing specific questions from lawmakers and the public, taking notes during hearings, responding to Freedom of Information Act (FOIA) and media requests, and conducting bill analyses.



#### IP INSIGHT

“Countering misinformation will not change the minds of vaccine opponents, but the audience is really those who are on the fence about vaccines.”

## Key Considerations

- + Consider each legislator’s level of expertise on relevant issues when responding to questions and preparing testimony.
- + Responses to legislator questions typically go through higher-level agency review channels before being submitted to legislators.
- + Develop a working Q&A document with responses to commonly asked questions. These documents typically address arguments and misinformation from vaccine opponents.
- + Expect an influx of FOIA requests, which may require a quick turnaround. Each state has its own rules for submitting and responding to open records requests.
- + Develop a plan to handle misinformation on social media platforms.
- + Media inquiries will likely occur, so know the chain of command for responding.
- + Be prepared to provide fact-based information on all aspects of vaccination and vaccine-preventable diseases.



## EXPERIENCE FROM THE FIELD

### Potential Challenge During Committee Hearings

In our state, proposed legislation was referred to the education committee rather than the health committee. These legislators were not as familiar with health issues. As a result, they needed additional explanations, and their questions were not always on topic.





## IP INSIGHT

“Be aware that information that the IP provides to others in the health department or to sister agencies to support their testimony may not necessarily be utilized.”

## EXAMPLES

### Three IP experiences in providing information during 2019 legislative session/rulemaking

#### TO LEGISLATORS



The IP responded to questions from legislators and the governor, prompted by constituent comments.



IP staff provided information for the health director's testimony, watched the public hearings, scanned submitted testimony, and responded to questions from legislators. Over time they developed a Q&A document to collate responses to common questions and comments.



The IP responded to extensive questions from legislators, partners, staff, and the governor's office. Responses were formally reviewed up through the department of health. IP staff also monitored public hearings and took official notes.

#### TO THE PUBLIC



The IP reviewed and categorized all public testimony and written comments submitted during the public comment period and developed responses.



The IP responded to questions from the public. The IP was also directed to increase its social media posts on Facebook and Twitter and to provide more content for the State Department of Health posts. Social media content was about general vaccine safety since they could not address the bill directly, and it received pushback in the form of social media comments.



The IP responded to questions from the public and numerous media inquiries, often related to the measles outbreak. Because the agency took an official position in support of the exemption removal bill, the IP was able to provide a statement supporting the removal of exemptions as a strategy for addressing outbreaks.

## Lessons Learned

- \* **Do your homework.** When responding to questions, familiarize yourself with the committee members and their levels of expertise on relevant issues.
- \* **Be strategic with resources.** Create or adapt a Q&A document to reduce staff workload and keep messaging consistent.
- \* **Be organized.** Keep resources in a central location (electronic or physical) that is accessible to all relevant staff.
- \* **Use plain language.** Ensure that information is easy to understand, especially if it is intended for legislators or the public.
- \* **Expect pushback.** Have a strategy for addressing social media comments.
- \* **Be clear.** Know your policies and the chain of command for responding to media inquiries.

---

### RESOURCES

#### Sample testimony of IP

- California Legislative Information — SB-276 Bill Analysis  
[https://leginfo.ca.gov/faces/billAnalysisClient.xhtml?bill\\_id=201920200SB276](https://leginfo.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201920200SB276)
- Hawaii Tribune-Herald — DOH looks to update immunization requirements for students:  
<https://www.hawaiitribune-herald.com/2018/11/19/hawaii-news/doh-looks-to-update-immunization-requirements-for-students>
- State of Hawaii, Department of Health — HAR 11-157 Responses to Concerns Submitted in Testimony  
<https://health.hawaii.gov/docd/files/2019/05/HAR-Responses-to-Concerns.pdf>
- School and immunization resources in support of testimony on exemption legislation:
  - ASTHO — Comparison of FERPA and HIPAA Privacy Rule for Accessing Student Health Data Fact Sheet  
<https://www.astho.org/Programs/Preparedness/Public-Health-Emergency-Law/Public-Health-and-Schools-Toolkit/Comparison-of-FERPA-and-HIPAA-Privacy-Rule>
  - ASTHO — Public Health Access to Student Health Data: Authorities and Limitations in Sharing Information Between Schools and Public Health Agencies Issue Brief  
<https://www.astho.org/Programs/Preparedness/Public-Health-Emergency-Law/Public-Health-and-Schools-Toolkit/Public-Health-Access-to-Student-Health-Data>
  - NACCHO — Statement of Policy: Access to School-Based Data  
<https://www.naccho.org/uploads/downloadable-resources/09-07-Access-to-School-based-Data.pdf>



## Immunization Program Policy Toolkit

### RESOURCE LIBRARY



Find immunization bills, sample testimony, and analysis in the **LEGISLATION** section of the Immunization Program Policy Library.

[www.immunizationmanagers.org/Policytoolkit](http://www.immunizationmanagers.org/Policytoolkit)



# Addressing Medical Freedom Arguments

One argument getting traction among vaccine opponents and some legislators relates to medical freedom, or having personal jurisdiction over medical decisions. A few suggestions to counter these arguments include:

## #1 The Right to a Healthy Environment for All Children

- School is a shared environment: personal freedom has never been unlimited and must be balanced against the risk of getting other people's children (or at-risk adults that are school employees) sick, or to make schools less safe for others. There are already many regulations that apply to school children, so it's hardly an unregulated environment.
- There is value in herd immunity: all children have the right to go to school and daycare in an environment that has the highest vaccination rates possible, resulting in a low risk of disease exposure.

## #2 The Value of Promoting a Healthy Community

- Protection goes beyond schoolchildren: ensuring a high level of vaccination is important to immunocompromised individuals, pregnant women, infants too young to be fully immunized, under-immunized individuals, vaccinated individuals who did not develop immunity, and elderly individuals. They are all at risk and depend on community immunity.

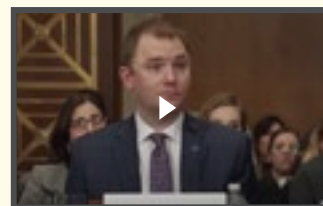
### TIPS YOU CAN USE

**Testimony from parents of immunocompromised children and organizations supporting the immune-compromised can be influential and help counter opposing testimony. Watch the 2019 U.S. Senate committee hearing on the benefits of vaccines amid the measles outbreak on YouTube, which includes testimony from John Boyle, Executive Director of the Immunodeficiency Foundation.**

“My life, along with the lives of hundreds of thousands of us who are immunocompromised depend on community immunity. We depend on vaccines.”

**John Boyle**, *Executive Director*, Immunodeficiency Foundation

<https://www.youtube.com/watch?v=IC5EIJEEzfw>



IPs must address the programmatic impact of new legislation or rule changes. For example, developing and distributing education materials for those impacted by enacted changes. The goal is to inform the public about the timing and implementation of new laws or rules, and to ease any fears or doubts about the potential impact.

### Key Considerations

- + IPs may not have official strategies for managing programmatic impact from new legislation or rule changes.
- + IP staff resources may be strained while supporting implementation, which can make attending to regular responsibilities challenging. It may be helpful to have explicit discussions and—where appropriate—offer recommendations on the level of new resources necessary to adequately implement new policies.
- + IPs will experience an increase in questions from the public and will need to strategize how to maintain consistent messages on new policies.
- + Many state legislatures will produce an analysis of proposed legislation, often called a Fiscal Note, that outlines the costs and other considerations necessary for implementation. This can help guide planning discussions.
- + IPs may be restrained from preparing for a change, other than sketching out “what-if” plans, until the legislation or rulemaking has officially passed.
- + It’s important to get information out quickly to address implementation questions, as well as to keep messages consistent and adapt them as needed.



#### EXPERIENCE FROM THE FIELD

##### Importance of Timing

The IP created a dummy website as a template for draft implementation materials. The test URL was obtained by a constituent, who then complained to their legislator. This contributed to a negative perception of the government, and damage control was time-consuming.



#### PM INSIGHT

“In some cases, it may be best not to have plans because the perception of those opposed to the changes was that the result had been predetermined.”

## Lessons Learned

- \* **Google is powerful.** Do not post anything in a public environment prior to receiving final approval.
- \* **Use stakeholders.** Use immunization coalitions to support communication needs when implementing legislation/rulemaking.
- \* **Be prepared.** Anticipate increased questions and strategize to maintain a consistent message, such as creating or adapting a Q&A document.



### STAKEHOLDER INSIGHT

“Though exemption legislation did not pass, the coalition experienced an increased volume in calls at back-to-school time on how to file an exemption. The coalition developed a quick training on its exemption procedures for its staff to ensure accurate and consistent responses, and also provided the information to its local public health districts.”

### RESOURCES

- State of Hawaii, Department of Health — Hawai'i Department of Health announces new school immunization requirements to begin July 1, 2020 [https://health.hawaii.gov/news/files/2019/08/19-061-DOH\\_School-Immunization-Requirements-Update-NR-FINAL-082719.pdf](https://health.hawaii.gov/news/files/2019/08/19-061-DOH_School-Immunization-Requirements-Update-NR-FINAL-082719.pdf)
- The Maui News — New immunizations required for public school next year <https://www.mauinews.com/news/local-news/2019/09/new-immunizations-required-for-public-school-next-year>
- KHON2 — State Health Official Explains New School Immunization Requirements <https://www.khon2.com/wake-up-2day/state-health-official-explains-new-school-immunization-requirements>
- Washington State Department of Health — MMR Vaccine Exemption Law Change FAQs <https://www.doh.wa.gov/CommunityandEnvironment/Schools/Immunization/ExemptionLawChange/ExemptionLawFAQs>
- California Department of Public Health — Vaccinations and Medical Exemptions Questions and Answers: <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Vaccinations-Q-A.aspx>

## Immunization Program Policy Toolkit

### RESOURCE LIBRARY



Find examples of Q&A documents in the members only - **GENERAL TOOLS** section of the Immunization Program Policy Library.



[www.immunizationmanagers.org/Policytoolkit](http://www.immunizationmanagers.org/Policytoolkit)



## Build Your Own Q&A Document

Creating a Q&A document can help reduce staff workload and keep messaging consistent. Here are steps to consider when designing your own:

✓ **Step 1: Identify which issues to address.**

- Use bill analyses conducted by legislative staffers to identify key issues both for and against the bill, and develop a list of bill supporters and opponents.
- Use misinformation about vaccines presented in public testimony to prioritize issues to address in the Q&A.
- Reference questions and comments to current and prior immunization-related legislation and rules.

✓ **Step 2: Identify information to include.**

- Provide evidence-based research in simple terms to support statements or counter misinformation.
- Understand the basis for vaccine opposers' arguments to help craft language to combat misinformation.
- Refer to other IP Q&A documents and other existing information and resources from vaccine-supportive national organizations.

✓ **Step 3: Go through all necessary upward review channels to ensure approval.**

✓ **Step 4: Determine a distribution strategy, if relevant.**



## CHAPTER 3

# Effective Education Strategies

Get tips on creating an education plan, creating messages, and building relationships with key policymakers.



[www.immunizationmanagers.org/PolicyResourceGuide](http://www.immunizationmanagers.org/PolicyResourceGuide)

## 3.3 PROACTIVE LEGISLATOR EDUCATION ON IMMUNIZATION/PUBLIC HEALTH ISSUES

Educating legislators early and often on immunization issues can help limit vaccine hesitancy that may arise with newly proposed legislation.

### Key Considerations

- + IP staff may be restricted from contacting legislators, so check with your legislative liaison about rules of engagement.
- + The department's legislative liaison may be able to deliver key messages for you.
- + Immunization coalitions and other partners often have more freedom to work directly with legislators.



### EXPERIENCE FROM THE FIELD

#### Coalition Interaction with Legislators

The immunization coalition staff conduct brief visits to the staff of new legislators to introduce themselves and share contact information, which is a good way to initiate connections. Because of how contentious the immunization-related bill was during the last state legislative session, coalition staff or their partners may also follow-up with legislators to thank those that supported the bill and to remind them of the best available resources and people to contact with questions or concerns.

## Lessons Learned

- + **Use your resources.** Work closely with the legislative liaisons—they can effectively deliver key messages for you.
- + **Use stakeholders.** Strategize with local coalitions and other partners who can advocate to proactively educate legislators on the value of immunizations.
- + **Tailor the message.** Develop report cards or other comparative immunization information, down to the legislative district level if possible, so that legislators feel more connected to the information.

### RESOURCES

- Vaccinate your Family — State of the ImmUnion Report <https://vaccinateyourfamily.org/join-us-in-support-of-vaccines/make-a-national-impact/state-of-the-immunion-report>
- Immunize Nevada — 2019 National Infant Immunization Week letter for legislative staff: [https://www.immunizenevada.org/sites/default/files/Advocacy/Issue\\_Solution\\_Immunizations\\_NV\\_5\\_10.pdf](https://www.immunizenevada.org/sites/default/files/Advocacy/Issue_Solution_Immunizations_NV_5_10.pdf)
- Sample report cards:
  - Washington Immunization Scorecard 2017 <https://www.doh.wa.gov/Portals/1/Documents/Pubs/348-709-WashingtonImmunizationScorecard.pdf>
  - Oklahoma Alliance for Healthy Families — Downloadable Resources <https://www.okhealthyfamily.org/resources>
  - Michigan Department of Health & Human Services — County Immunization Report Card [https://www.michigan.gov/mdhhs/0,5885,7-339-73971\\_4911\\_4914\\_68361-321114--,00.html](https://www.michigan.gov/mdhhs/0,5885,7-339-73971_4911_4914_68361-321114--,00.html)

## Tips for Providing Information to Legislators

- Legislators are interested in information relevant to their jurisdiction and how they compare to other districts.
- Link information—including testimony—with current issues, news, and potential impacts on cost.
- Always be respectful in communications with legislators and their staff.
- Keep print communications to one page in length—legislators will ask questions if they need more information.
- If you can visit legislative staff offices in-person, be brief and succinct.

TIPS: EDUCATING LEGISLATORS

## Immunization Program Policy Toolkit

RESOURCE LIBRARY



Search the Immunization Program Policy Library to find resources for **SUPPORTING INVESTMENT** in immunization

[www.immunizationmanagers.org/Policytoolkit](http://www.immunizationmanagers.org/Policytoolkit)





## **STEP 4**

# **Foster Supportive Partnerships**

## STEP 4

# Foster Supportive Partnerships

IP partners are often involved in activities that promote a pro-vaccine position on immunization-related legislation or rule changes. IPs may directly engage with partners, such as coordinating testimony in support of proposed legislation. However, some IPs may be restricted from direct involvement because they need to be neutral. Partnerships discussed in this section include immunization coalitions, parent advocates, and others.

### Immunization Coalitions

Statewide immunization coalitions play an important role in the legislative/rulemaking process. They provide an existing network of known immunization supporters, and are able to play the role of an advocate. IP funding support and level of involvement in state coalition activities varies by state. Local immunization coalitions also exist in some states.

### Parent Advocates

The involvement of parent advocates, such as parents of immunocompromised children, is very valuable for countering testimony by parents who oppose vaccines.

### Other Partners

Other valuable partners can include medical professional associations (e.g., state chapter of the American Academy of Pediatrics), school-related organizations (e.g., State Education Association, the Board of Education), local public health departments, Planned Parenthood, and other local grassroots groups. (See also Chapter 2 of the AIM Immunization Program Policy Resource Guide.)



## EXAMPLES

### IP Support and Involvement with Immunization Coalitions in Five States



IP staff attend board meetings as guests to provide information; they do not serve on the board.



The coalition is board-driven. IP staff can sit on the board but cannot hold leadership positions.



The coalition is a sub-grantee of the IP and receives funding from the IP. The coalition raises separate funds to support lobbying/advocacy. IP staff are not on the board.



The IP provides funding to the coalition and is a partner agency with representation on the steering committee. The coalition is fairly new and is run by a nonprofit health system.



The coalition is housed at a nonprofit agency. IP staff are active members and help guide the direction of coalition activities.

## EXAMPLES

### Samples of Immunization Coalition Activities During the 2019 Legislative Session/Rulemaking in Three States



The coalition informally reviewed the bill language, was part of strategy discussions on getting the bill passed, aided the bill sponsor's staff per their request, testified at public hearings, and responded to media requests.



The coalition rallied supporters to contact the governor's office to counter opposing viewpoints, spoke at public hearings, sent email blasts to members to rally support, and generated talking points and provided sample testimony.



The coalition worked with the freshman legislator who introduced the bill to help clarify goals and assistance needed. Staff spoke at public hearings, provided comments to amend the original bill language, watched the public testimony and provided the bill sponsor with responses to misinformation, and published a blog post supporting the proposed legislation.



## Key Considerations

- + For immunization coalitions:
  - IPs may or may not have a coalition or be able to help fund their activities.
  - IPs may or may not have state rules or regulations regarding IP staff involvement in coalition work.
  - IPs may want to consider the public perception of coalition involvement during legislative proceedings, even if involvement is within the boundaries of state rules.
- + For parent advocates:
  - Local parents who support vaccines, such as those with immunocompromised children, can be hard to find.
  - Parent advocates may need help understanding that compromise is typically necessary to get legislation passed.
  - IPs generally cannot work directly with parent advocate groups other than providing educational or factual information.
- + Some partners who support legislation or proposed rules may be reluctant to go on the record due to fear of retaliation.



### STAKEHOLDER INSIGHT

“In our state, a parent who was going to testify in support of the 2019 exemption legislation backed out at the last minute when they saw people they knew on the opposition side.”

## Immunization Program Policy Toolkit

### RESOURCE LIBRARY



Find resources for sharing stories on the value of immunizations in the stories on immunization value section of the Immunization Program Policy Library

[www.immunizationmanagers.org/Policytoolkit](http://www.immunizationmanagers.org/Policytoolkit)



## EXPERIENCE FROM THE FIELD

### Being Strategic About Support

In our state, testimony from legal professionals significantly helped legislative committees such as the Judiciary Committee. For the health and education committees, testimony from parents of immunocompromised children provided a counterbalance to the voices testifying that their children were injured by vaccines.

## Lessons Learned

- + **Be strategic.** Encourage the coalition to consider who will be impacted by proposed legislation or rules when deciding who should be targeted.
- + **Anticipate resistance.** Consider keeping feedback from vaccine supporters anonymous to help address concerns about personal retaliation from vaccine opposers.
- + **Do your homework.** Be clear on regulations regarding your support and involvement with immunization coalitions.
- + **Think twice.** Reevaluate any direct public involvement with coalitions during the legislative process.
- + **Follow the rules.** Remember that written communications with partners can be obtained through FOIA requests.

---

### RESOURCES

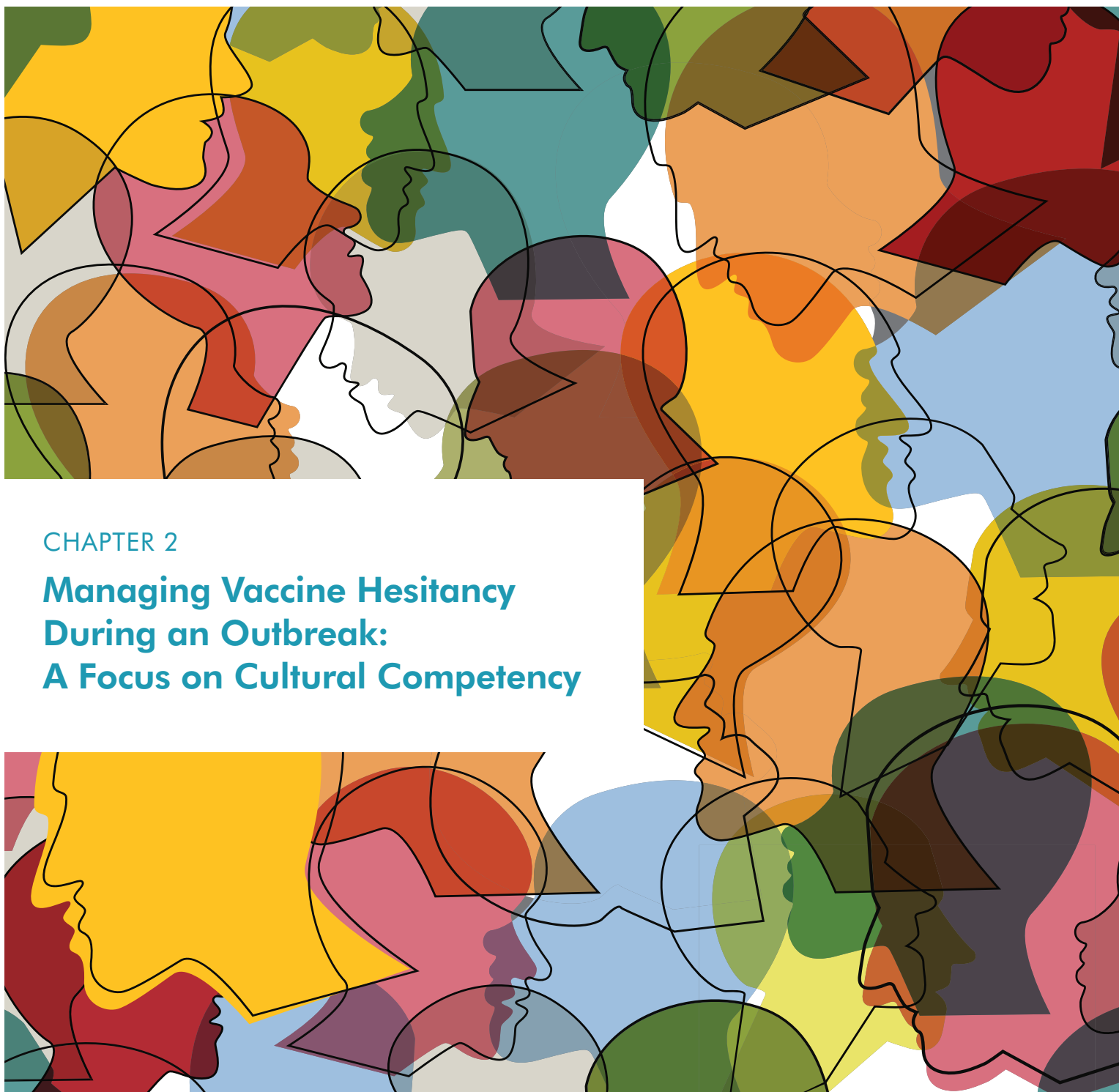
- Hawaii Immunization Coalition — Sample Testimony <https://immunizehawaii.org/2018/10/24/submit-testimony-today>
- Immunize Nevada — Sample Testimony [https://www.leg.state.nv.us/App/NELIS/REL/80th2019/ExhibitDocument/OpenExhibitDocument?exhibitId=36411&fileDownloadName=0219AB123\\_parh\\_test.pdf](https://www.leg.state.nv.us/App/NELIS/REL/80th2019/ExhibitDocument/OpenExhibitDocument?exhibitId=36411&fileDownloadName=0219AB123_parh_test.pdf)
- Immunize Nevada — The ABCs of AB123 <https://www.immunizenevada.org/news/abcs-ab123>
- Websites featuring examples of parent advocacy groups, such as Vaccinate California or Voices for Vaccines <https://vaccinatecalifornia.org/> or <https://www.voicesforvaccines.org>
- Families Fighting Flu – Family Stories <https://www.familiesfightingflu.org/family-stories>
- Website of National Network of IZ Coalitions <https://www.immunizationcoalitions.org>





Lessons from the Field:

# PROMOTING VACCINE CONFIDENCE



## CHAPTER 2

### **Managing Vaccine Hesitancy During an Outbreak: A Focus on Cultural Competency**



## A NOTE ON TERMINOLOGY FOUND IN THIS CHAPTER

AIM recognizes that public health and research communities often use deficit-based terminology. As our organization works to mitigate the use of such language, we'd like to offer context to two sensitive terms that are used throughout this chapter.

### Pockets of need

"Pockets of need" are described by the American Immunization Registry Association (AIRA) as "a subpopulation of unimmunized or underimmunized individuals that presents an increased disease risk...These individuals can be clustered geographically, demographically (e.g., race, ethnicity) or based on a gathering point (e.g., a school or church). Pockets of need represent a significant challenge for public health because they can be difficult to identify and may require substantial outreach to improve vaccination coverage."<sup>1</sup>

### Religious, racial, and/or ethnic populations at higher risk for vaccine-preventable diseases

In an effort to make immunization program (IP) participation in this guide anonymous, this chapter uses the general description, "religious, racial, and/or ethnic populations at higher risk for vaccine-preventable diseases (VPDs)" to refer to pockets of need centered around beliefs related to identity. AIM acknowledges that this generalized description erases the unique strengths among each community, all of whom are made up of individuals with distinct and intersectional cultures, beliefs, and attitudes. AIM would like to stress that in approaching immunization work in "pockets of need," IPs recognize the unique strengths of each community and the need to develop tailored and community-led approaches to addressing vaccine hesitancy. We hope this guide helps immunization programs accomplish this goal.



# New Insight Into COVID-19 Vaccination Equity

A new report, "Equity in Vaccination: A Plan to Work with Communities of Color Toward COVID-19 Recovery and Beyond," highlights five principles for ensuring the COVID-19 vaccine is delivered fairly and equitably to Black, Indigenous, Latino/Latinx, and other communities of color. The report includes a plan that describes actions that can help ensure equitable, effective COVID-19 vaccination and advance lasting systemic gains for underserved groups, and a checklist to aid state and local jurisdictions implement the five principles. The report was developed by CommuniVax, a national alliance of social scientists, public health experts, and community advocates seeking to strengthen COVID-19 vaccination efforts in the United States.



The Ad Council and COVID Collaborative are leading a massive communications effort to educate the American public and build confidence around the COVID-19 vaccines. For specific communities, you can access various toolkits below to get message guidance, language do's and don'ts, audience insights, and assets.

**Black Communities**

**Hispanic Communities**

**Black Faith Communities**

**Hispanic Faith Communities**

# Introduction

An alarming number of outbreaks of VPDs have recently occurred in geographic pockets with low vaccination coverage, mostly among religious, racial, and/or ethnic populations at higher risk for VPDs. Lessons learned from recent outbreaks demonstrate that many affected communities have some level of vaccine hesitancy. The role of the 64 state, local, and territorial IPs is to identify populations susceptible to VPDs, respond to outbreaks, and build their communities' confidence in vaccination.

The COVID-19 pandemic—the worst public health crisis in over a century by several measures—has disproportionately impacted Hispanic, Black, American Indian, and Alaska Native communities. COVID-19 vaccination rates in the U.S. also vary by race, with the lowest coverage among Black communities (compared to White, Hispanic, and Asian American communities).<sup>2,3</sup> It is important to understand how vaccine hesitancy may manifest differently among people with various religious, racial, and ethnic backgrounds, thus impacting public health strategies to address COVID-19. Lessons learned from recent disease outbreaks can be used to inform responses to future outbreaks, as well as the COVID-19 vaccination campaign.

## Understanding cultural competence

The term cultural competence is used to describe a set of skills, values, and principles that acknowledge, respect, and work toward optimal interactions between an individual and people who have a different culture, race, ethnicity, or religion than they do. The key components for a high degree of cultural competence are:

**AWARENESS.** Being aware of your own individual biases and reactions.

**KNOWLEDGE.** Understand if your values and beliefs about equality line up with your actual behaviors.

**SKILLS.** Taking practices of cultural competency and incorporating effective and respectful communication, whether within an organization or between individuals.

Note: adapted from <https://www.humanservicesedu.org/cultural-competency.html>

The purpose of this chapter is to describe important steps for identifying and engaging populations at risk for VPDs in culturally competent ways to manage vaccine hesitancy, particularly in outbreak situations:

### Step 1

P. 50

Identify Pockets of Need

### Step 2

P. 54

Identify and Engage Community Leaders

### Step 3

P. 58

Understand Concerns and Build Trust in Communities At Risk for VPDs

### Step 4

P. 64

Develop and Disseminate Culturally Relevant Messages in Partnership with Community Members

Highlighted within each step are key considerations, experiences from the field, IP and stakeholder insight, lessons learned, and resources to help IPs engage populations at risk for VPDs in culturally competent ways. The checklist on page 44 can be used to quickly review the most important things to consider, especially when managing vaccine hesitancy for at-risk populations during outbreak situations and the pandemic response.

Information for this chapter was collected via semi-structured interviews with eight IP managers and online searches for publicly available resources and supporting materials. Guidance and feedback were provided by an advisory board consisting of AIM members and partners.



<sup>1</sup> American Immunization Registry Association. Identifying Pockets of Need: Small Area Analysis of IIS Data to Detect Undervaccinated Populations [https://repository.immregistries.org/files/resources/5bae51a16a09c/identifying\\_immunization\\_pockets\\_of\\_need-\\_final2.pdf](https://repository.immregistries.org/files/resources/5bae51a16a09c/identifying_immunization_pockets_of_need-_final2.pdf)

<sup>2</sup> Centers for Disease Control and Prevention. COVID-19 Data Tracker. (2021, December 10). <https://covid.cdc.gov/covid-data-tracker/#demographicsovertime>

<sup>3</sup> Kaiser Family Foundation. KFF COVID-19 Vaccine Monitor Dashboard. (2021, December 10). <https://www.kff.org/coronavirus-covid-19/dashboard/kff-covid-19-vaccine-monitordashboard/>

## Checklist for promoting vaccine confidence during an outbreak

✓ **Understand what it means to be culturally competent: make sure all IP staff have the awareness, knowledge, and skills to practice cultural competency within the organization and between individuals.**

- Work with your human resources department and state Office of Minority Health to provide your staff cultural competency training.
- Invite members of the community you hope to reach to share with your staff their personal stories and strategies to genuinely and effectively work with various religious, racial, and ethnic populations.

✓ **Identify pockets of need.**

- Work with local health departments, coalitions, and community leaders to identify populations at risk for VPDs.
- Contact Racial and Ethnic Approaches to Community Health (REACH) program recipients in your jurisdiction, as they may have insight into community-based needs.
- Utilize your immunization information system (IIS) and other state data sources to pinpoint at-risk populations, with consideration that some populations can be further segmented and “micro-targeting” may be necessary.
- Conduct ongoing monitoring of vaccination rates in populations at risk for VPDs and look for opportunities (surveys, focus groups, community meetings, online chat rooms, etc.) to further understand the evolution of their vaccine hesitancy concerns, even before an outbreak or pandemic occurs.

✓ **Consider community leaders as “keys” to reach populations at risk for VPDs.**

- Think outside the box when identifying community leaders—think about who are the religious, business, and service providers that have daily interaction with community members.
- Use your local health departments, divisions of health, and other state agencies to broaden your scope of trusted individuals that already interact with at-risk populations.
- Identify health champions in a community before outbreaks/pandemics begin and learn how they engage community members to determine the best way to collaborate.
- Foster relationships by being receptive to stakeholder ideas and explore whether resources/mechanisms are available to support their engagement in activities.
- Devote time to maintaining these relationships so you can rely on each other in the future.

✓ **Keep in mind that you need the trust of community members to be successful. Building trust takes time and you cannot do it alone.**

- Explore ways to understand the concerns of communities (e.g., interviews, focus groups, community discussions/meetings).
- Form a “trust network,” bringing community members to the table.
- Activate your community leaders; engage other health departments/agency staff; form advisory boards/workgroups with community representation to truly understand and address communities’ concerns.
- Walk in their shoes—undertake efforts to understand their history, role of religion, daily routines, and how they communicate.
- Consider hiring or consulting with a leader from the community you hope to reach who can help educate IP staff on concerns and approaches for engaging with that community.

✓ **Consider that traditional approaches for disseminating information may not be as effective, and desired communication methods may vary within at-risk communities.**

- Use your “trust network” to understand how to adapt messages and address specific concerns. Consider how community members best receive messages (e.g., text messages vs. hotlines, newsletters vs. social media).
- Vet materials with a community leader to make sure the communication is appropriate for all subpopulations within at-risk communities (e.g., use of language, translation, literacy level, mode of delivery, etc.).
- Consider co-branding communication messages with organizations representing community members.
- Adapt messages throughout the outbreak/pandemic; for example, tailoring ads to an event or religious celebration important to community members.
- Anticipate confusion from the general public — attempt to clarify if vaccination recommendations pertain to a specific subset of people.
- Be ready to respond if communication messages come from other state/federal government sources without an opportunity to provide input.
- Have a plan and engage your “trust network” to manage vaccine opposition.

## MAKE A CONNECTION

### Racial and Ethnic Approaches to Community Health (REACH)

Did you know that CDC funds 36 recipients to reduce health disparities among racial and ethnic populations with the highest burden of chronic disease (i.e., hypertension, heart disease, Type 2 diabetes, and obesity) through culturally tailored interventions to address preventable risk behaviors (i.e., tobacco use, poor nutrition, and physical inactivity)? Recently the 2018 REACH recipients expanded their scope to include influenza and COVID-19. Contact your local REACH recipient learn more about their lessons learned for reducing health disparities.

[www.cdc.gov/nccdphp/dnpao/state-local-programs/reach/current\\_programs/recipients.html](https://www.cdc.gov/nccdphp/dnpao/state-local-programs/reach/current_programs/recipients.html)





## RESOURCES FOR IMPROVING CULTURAL COMPETENCY

### **Intercultural Competency in Public Health: A Call for Action to Incorporate Training into Public Health Education (Fleckman et.al., 2015)**

Describes frameworks of cultural competency such as the intercultural competence (ICC) framework for public health institutions and clinical care.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556984>

### **Becoming a Culturally Competent Health Care Organization (2013)**

Institute for Diversity in Health Management and Health Research Educational Trust toolkit for “Becoming a Culturally Competent Health Care Organization”  
<https://www.aha.org/ahahret-guides/2013-06-18-becoming-culturally-competent-health-care-organization>

### **In Focus: Identifying and Addressing Health Disparities Among Hispanics (Hostetter and Klein, 2018)**

from The Common Wealth Fund  
<https://www.commonwealthfund.org/publications/newsletter-article/2018/dec/focus-identifying-and-addressing-health-disparities-among>

### **Resources for Integrated Care – General Toolkits and Guides**

Resources for Integrated Care’s compiled lists of general toolkits on cultural competency from various organizations  
[https://www.resourcesforintegratedcare.com/concepts/cultural\\_competency/toolkits](https://www.resourcesforintegratedcare.com/concepts/cultural_competency/toolkits)

### **American Academy of Pediatrics – Providing Culturally Effective Care**

<https://www.aap.org/en-us/professional-resources/practice-transformation/managing-patients/Pages/effective-care.aspx>

### **The Community Pediatrics Training Initiative Project Planning Tool: A Practical Approach to Community-Based Advocacy (Hoffman, 2017)**

[https://www.mededportal.org/doi/10.15766/mep\\_2374-8265.10630](https://www.mededportal.org/doi/10.15766/mep_2374-8265.10630)

### **Emergency Medical Services for Children Cultural Competency Toolkit**

<https://emscimprovement.center/education-and-resources/toolkits/cultural-competency>

### **DRIVE Center for Sustainable Health Care Quality and Equity**

Toolkit for promoting health in underserved populations  
<https://shcdrive.org>

### **Diversity RX resources for improving health care for a diverse world**

<http://www.diversityrx.org>

### **US Health and Human Services Think Cultural Health**

resources for improving health equity:  
<https://thinkculturalhealth.hhs.gov>

### **National Minority Quality Forum**

Communications Toolkit for Community-Driven Equity in Flu Vaccination  
<https://nmqf-shc.org/flu-vaccination>



## Promoting vaccine confidence in African American communities: Considerations for the COVID-19 pandemic

Mistrust from African American communities towards health care institutions is present, complex, and multifaceted due to the racist history of medical experimentation, health disparities, and racial bias in health care settings. In medical settings, research shows that African Americans have higher racial consciousness\* than other races, resulting in lower trust in the vaccine process and higher perceived risk of side effects.<sup>4</sup>

IPs must consider the important role of cultural competency in the COVID-19 vaccination campaign. Particularly, research shows that as a result of systemic racism, Black Americans often have worse health outcomes and face higher COVID-19 complications; therefore, high vaccination coverage rates will be crucial for preventing more COVID-19 related deaths in African American communities.<sup>5</sup> Specifically, promoting vaccine confidence will be an important component. The STAT and the Harris Poll conducted in October 2020 shows that fewer Black Americans than white Americans (43% vs. 59%) are likely to pursue a COVID-19 vaccine once it becomes available.<sup>6</sup> Because African Americans trust health care professionals over the CDC,<sup>7</sup> it is essential that IPs **engage with all health care providers (dentists, primary care, specialists, pharmacists, etc.) to provide a strong recommendation and partner with community leaders to encourage vaccination.**

### Other Resources:

Toolkit from the American Lung Association and The Center for Black Health & Equity specifically geared towards COVID disease and vaccines for Black communities. [https://www.lung.org/getmedia/ec3ef385-7239-44d2-94af-c09051dfdae1/americanlungassociation\\_vaccineeducationtoolkit.pdf](https://www.lung.org/getmedia/ec3ef385-7239-44d2-94af-c09051dfdae1/americanlungassociation_vaccineeducationtoolkit.pdf)

Trust for America's Health: Building Trust in and Access to a COVID-19 Vaccine Among People of Color and Tribal Nations: A Framework for Action Convening  
<https://www.tfah.org/wp-content/uploads/2020/12/VaccineConveningPolicyBriefFnl.pdf>

\*Racial consciousness in the health care setting is defined as the awareness of oneself as a racial being in that setting, and racial fairness as perceptions of whether treatment, either by government or within a health care setting, is fair to one's race.

**Below are tips gathered from recent research on how to increase immunization coverage rates in African American communities by focusing on cultural competency methods.**<sup>8,9,10,11</sup>

### Acknowledge, respect, and respond to concerns and fears about the vaccine.

- Develop a communications framework that addresses the facts, fears, and desired outcomes.
  - Acknowledge the perceived risk of vaccines and side effects. Explicitly address the vaccine development process and safety, etc.
  - Communicate the individual, community, and societal benefits to receiving the vaccine.
- Change social norms by talking about the importance of vaccines as a means of protecting others with friends and family.

### Build trust.

- Promote that all health care providers give a strong recommendation.
- Provide tips on how to address vaccine hesitancy and mistrust with patients.

- Encourage providers to listen, acknowledge, and respect that mistrust is present and valid, then offer a strong vaccine recommendation that is based on vaccine safety and effectiveness, and individual and community protection against disease.
- Encourage health care providers to be vaccinated in order to reassure and encourage their patients.
- Encourage all employees within a health care setting (e.g., medical assistant, nurse practitioner, front desk staff, etc.) to recommend the vaccine at all the different stages of a medical visit.

### Work with community organizations.

- Coordinate messaging to increase their reach.
  - Leverage organizations' communication channels and social media.
- Work with pharmacy chains, hospital systems, and other organizations to get clinics into communities.
- Diversify your community influencers to include those of various age groups, roles, and professions (e.g., bloggers, caregivers, health care workers, celebrities, etc.).
- Also, consider working with service providers like barbershops, faith communities, and local civic associations.

## AIM WEBINAR ARCHIVE

[www.immunizationmanagers.org/page/vaccineconfidencewebinar](http://www.immunizationmanagers.org/page/vaccineconfidencewebinar)

# Increasing Flu Vaccine Confidence Within African American Communities

With continued COVID-19 activity, ensuring communities are protected from the flu will be more important now than ever. Outreach to African American communities—which have been disproportionately impacted by the COVID-19 pandemic—will be especially critical. View the webinar archive to learn strategies from Dr. Sandra C. Quinn of the University of Maryland Center for Health Equity, and Dr. Laura Lee Hall of the Center for Sustainable Health Care Quality and Equity—part of the National Minority Quality Forum. The event covers:

Recent research on flu vaccine uptake trends within African American communities

Examples of public health partnerships supporting flu vaccine confidence

How these findings and strategies can be applied to immunization work

<sup>4</sup> Quinn, S. C., Jamison, A., Freimuth, V.S., An, J., Hancock, G. R., Musa, D. (2017). Exploring racial influences on flu vaccine attitudes and behavior: Results of a national survey of White and African American adults. *Vaccine*, 35(8), 1167-1174. doi:10.1016/j.vaccine.2016.12.046

<sup>5</sup> Gramlich, J., Funk, C. (2020, June 4). Black Americans face higher COVID-19 risks, are more hesitant to trust medical scientists, get vaccinated. Pew Research Center. <https://www.pewresearch.org/fact-tank/2020/06/04/black-americans-face-higher-covid-19-risks-are-more-hesitant-to-trust-medical-scientists-get-vaccinated/>

<sup>6</sup> Silverman, E. (2020, October 19) STAT-Harris Poll: The share of Americans interested in getting Covid-19 vaccine as soon as possible is dropping. STAT. <https://www.statnews.com/pharmalot/2020/10/19/covid19-coronavirus-pandemic-vaccine-racial-disparities/>

<sup>7</sup> Freimuth, V. S., Jamison, A. M., An, J., Hancock, G. R., Quinn, S. C. (2017, October 4). Determinants of trust in the flu vaccine for African Americans and Whites. *Soc Sci Med*, 193, 70-79. doi:10.1016/j.socscimed.2017.10.001

<sup>8</sup> Quinn, S. C. (2018, February 7). Understanding Dynamics Underlying Racial Disparities in Influenza Vaccination. University of Maryland School of Public Health Center for Health Equity. <https://www.hhs.gov/sites/default/files/quinn-understanding-dynamics-underlying-racial-disparities-in-influenza-vaccination-remediated.pdf>

<sup>9</sup> Freimuth, V. S., et. al. (2017, November). Determinants of Trust in the Flu Vaccine for African Americans and Whites. <https://drive.google.com/file/d/1bISlpRI2f-GIY5NCAY0BgZKX035LJ/view>

<sup>10</sup> UMD. Understanding Dynamics Underlying Racial Disparities in Influenza Vaccination. Quinn. 2018 <https://www.hhs.gov/sites/default/files/quinn-understanding-dynamics-underlying-racial-disparities-in-influenza-vaccination-remediated.pdf>

<sup>11</sup> *Increasing Flu Vaccine Confidence Within African American Communities*. (2020, August 18). AIM. <https://www.immunizationmanagers.org/resources/vaccine-confidence-toolkit-webinar-series-webinar-2/>



## STEP 1

# Identify Pockets of Need



## STEP 1

# Identify Pockets of Need

Identifying the various racial, ethnic, and religious populations within a jurisdiction is important when addressing vaccine hesitancy, especially during outbreaks of vaccine-preventable disease. Due to religious teachings, historical trauma, systemic racism, and/or other circumstances, some populations are more likely to have “pockets of need,” i.e., subpopulations of unimmunized or underimmunized individuals that increase the risk for VPD outbreaks in that community. Being able to identify these at-risk populations is the first step in developing strategies to increase immunization rates and address outbreaks when they occur.

## Key Considerations

- + A broad array of information sources is useful when identifying at-risk populations within a community, such as:
  - vital records
  - state department of health (internal) refugee/migrant health programs
  - state Medicaid programs
  - immunization information systems (IIS)
  - school and daycare immunization records
- + Consider the following variables when identifying at-risk subpopulations:
  - race/ethnicity
  - socioeconomic status
  - vaccine exemption rates
  - geography
  - religious affiliation
- + Broad populations may be further segmented by their attitudes toward vaccination and “micro-targeting” may be necessary due to:
  - geographic differences (segmenting Eastern Europeans into specific regions or countries, e.g., Ukrainians, Macedonians)
  - age differences (younger versus older, perhaps a proxy for level of assimilation)
  - dialect differences within a common language
- + Past experiences with vaccine hesitancy and outbreaks among at-risk subpopulations can inform the monitoring of vaccination rates in those populations and development of strategies to address vaccine hesitancy.
- + Local health departments (LHDs) can be a great resource for identifying at-risk subpopulations in their jurisdiction; in some states, LHDs may be responsible for taking the lead on addressing outbreaks.
- + Once subpopulations have been identified, engage community leaders and conduct focus groups to learn more about their vaccine concerns.

## EXAMPLES

### Outbreaks in ethnic and religious populations at higher risk for VPDs

#### MINNESOTA

In spring 2017, Minnesota had 75 measles cases, primarily among unvaccinated young children, with 91% among individuals of Somali descent. The roots of the outbreak stemmed from a 2008 local news story about disproportionately high numbers of Somali children in special education programs, leading to concerns about autism and the purported connection with the MMR vaccine. MMR vaccination rates among MN-born two-year-olds of Somali descent dropped from a high of 92% in 2004 (higher than non-Somali populations) to 42% by 2014.

NVAC Meeting. (2019, June 4-5). Department of Health and Human Services. <https://www.hhs.gov/vaccines/nvac/meetings/2019/06-04/index.html>

#### NEW YORK CITY

Between fall 2018 through summer 2019, New York City had 649 confirmed measles cases, with 93% of cases among Orthodox Jewish community members and the majority (73%) concentrated in the Williamsburg area of Brooklyn. Most cases were in individuals aged 18 or younger (81%; median age three years), and 85% of patients with a known vaccination history had not been vaccinated.

Zucker, J. R., et. al. (2020, March 12.) Consequences of Undervaccination — Measles Outbreak, New York City, 2018–2019. *N Engl J Med*, 382(11), 1009-1017. <https://www.nejm.org/doi/full/10.1056/NEJMoa1912514>



#### EXPERIENCE FROM THE FIELD

##### Considering Fragmented Communities

Through investigation of a school-based outbreak of pertussis and varicella, an IP became aware of a small pocket of un- and undervaccinated children in a community of Ukrainian descent.

## Lessons Learned

- \* Broaden efforts to identify pockets of need.
- \* Improve existing data sources (e.g., school compliance reports) to get sufficient granular data (e.g., zip code level) when identifying pockets of need.
- \* Become familiar with subpopulations that have had previous outbreaks, either within your own jurisdiction or others.
- \* Recognize that having sufficient and sustainable resources to go from identifying subpopulations to the next steps of understanding and addressing their vaccine concerns can be a significant challenge.



#### EXPERIENCE FROM THE FIELD

##### Using Focus Groups to Understand Concerns

A mumps outbreak concentrated in a religious subpopulation prompted the local public health department to conduct focus groups among mothers to identify reasons for vaccine hesitancy.





#### PROGRAM MANAGER INSIGHT

“I think that the 2019 measles outbreak has made us aware that we need to dig into our data a little bit deeper to see if there are pockets. I don’t know if we would’ve identified this pocket, but knowing where those pockets are to try to put some vaccination efforts in place to get kids vaccinated...is a good thing.”



#### PROGRAM MANAGER INSIGHT

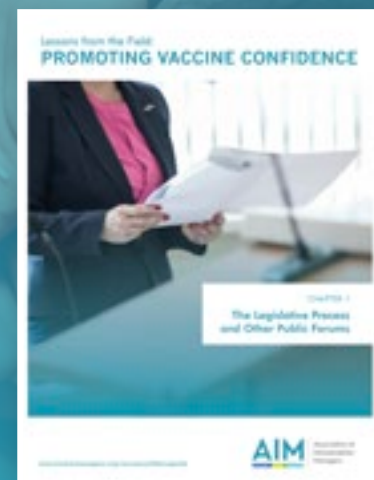
“So we did have a decent amount of information on [reasons for lower vaccination rates among Russian-speaking populations], and did some special projects for a year or two. Like, partnering with our state coalition partners with local groups to try to have some community meetings and finding trusted native speakers within those communities who could lead those community meetings. But it was one-time funding and we haven’t been able to sustain it.”

#### LESSONS FROM THE FIELD: PROMOTING VACCINE CONFIDENCE

##### CHAPTER 1

## The Legislative Process and Other Forums

Find lessons learned and resources to help immunization programs minimize the impact of vocal vaccine opposition during legislative and rulemaking processes and maximize efforts to inform policymakers of the value of immunization.



[www.immunizationmanagers.org/vaccineconfidenceguide](http://www.immunizationmanagers.org/vaccineconfidenceguide)

## STEP 2

# Identify and Engage Community Leaders



## STEP 2

# Identify and Engage Community Leaders

Identifying and engaging respected leaders within the communities you hope to reach is critical to preventing and addressing VPD outbreaks. Such relationships are important for building trust within these communities (Step 3), as well as developing and disseminating effective communication materials (Step 4).



## EXPERIENCE FROM THE FIELD

### Identifying a Community Liaison

The health department had hired a community liaison to focus on issues the health department wanted to address with community members. The liaison started a health coalition for a specific sub-population that ended up being a forum for people to come forward and identify themselves. Through this, the IP learned about new partners, such as subpopulation-specific nursing and medical associations.

## Key Considerations

- + The types of community leaders that could be effective partners may be different for varying subpopulations. People and/or groups to consider include:
  - religious leaders
  - school nurses
  - parent advocates
  - health care provider groups
  - business leaders
  - service providers
  - media outlets specific to the communities you hope to reach
- + Internal partners within the department of health, e.g., refugee health programs, may be a good resource for identifying new partners.
- + The agendas and level of experience of community-based organizations and leaders may vary widely.
- + Local health departments may be more directly involved with community partners in their jurisdiction, depending on their level of responsibility for addressing outbreaks.
- + Certain community groups may expect payment for their involvement, which may not be allowed due to government restrictions.



### PROGRAM MANAGER INSIGHT

“These community-based groups that are formed from people in the community are really critical, but they can be challenging to work with because they don’t necessarily have the capacity or experience.”

## Lessons Learned

- \* Identify and engage key community partners before outbreaks occur to hasten response time.
- \* Maintain pre-existing relationships with community leaders, such as from prior outbreaks, so that you can rely on each other in the future.
- \* Anticipate that some community partners will need to be briefed on the ‘ins and outs’ of working with the health department.
- \* Be receptive to community leaders’ ideas for promoting vaccination to an appropriate extent.
- \* Expect that some people or groups may expect something in return for their help. Be familiar with whether any mechanism exists to assist them.



### EXPERIENCE FROM THE FIELD

#### Maintaining Partnerships

Our state had a physician [within the affected community] that was involved in a previous outbreak. When a new outbreak occurred, he took it upon himself to make sure that the outbreak didn’t spread by going household to household to visit the cases and provide the support they needed, without having them go to the hospital or any other clinics. The local health department ended up assisting him.



### PROGRAM MANAGER INSIGHT

“We’ve found that there’s a lot of expectation from community groups about receiving payment for the collaboration — so that’s been a challenge. Partly because when you’re paying somebody within a government system, you’ve got all the checks and balances and all of that, so it just makes it more complicated. And then the other challenge is that if we’re paying people, then vaccine opponents can say, “Well, they don’t really believe this. You’re paying them to believe this.”

## EXAMPLES

### Examples of how IPs have engaged with key community partners



A local subpopulation's nursing association was instrumental in disseminating information. The IP gave them materials, did an in-service, and helped them with PowerPoints.



Faith leaders were willing to do training sessions with a health care provider in mosques and during Friday prayers and Ramadan.



The local health department was able to establish a great working relationship with community members. They held a lot of clinics within the synagogues and in Jewish community centers to make sure that individuals were vaccinated.



#### COVID-19 Faith Leader Partner Orthodox Union

Founded in 1898, the Orthodox Union (OU) serves as the voice of American Orthodox Jewry, with close to 1000 congregations in its synagogue network. As the umbrella organization for American Orthodox Jewry, the OU is at the forefront of advocacy work on both state and federal levels and works with congregations across North America to advance important initiatives for the Jewish and broader communities. The OU issued a call to its members to support State and Local officials in their efforts to provide the COVID-19 Vaccine to as many people as possible by offering their buildings to serve as vaccination sites as well as any other logistical assistance the Faith Community can provide. Contact Rabbi Adir Posy [posya@ou.org](mailto:posya@ou.org) to learn more about how you can collaborate with the OU leadership in your jurisdiction.

## RESOURCES

- *Faith & Immunization: Past, Present and Potential Roles of Faith-inspired Organizations.* (n.d.) GAVI Alliance. [https://berkleycenter.georgetown.edu/publications/faith-immunization-past-present-and-potential-roles-of-faith-inspired-organizations/pdf\\_download/en](https://berkleycenter.georgetown.edu/publications/faith-immunization-past-present-and-potential-roles-of-faith-inspired-organizations/pdf_download/en)
- *Partnering with Communities.* (n.d.) The World Health Organization. [https://www.who.int/immunization/documents/IIP2015\\_Module7.pdf?ua=1](https://www.who.int/immunization/documents/IIP2015_Module7.pdf?ua=1)
- Chapter 157, "Examination and Immunization" Proposed Amendments WHO Best practice guidance: [How to respond to vocal vaccine deniers in public](#)

## STEP 3

# Understand Concerns and Build Trust in Communities at Risk for VPDs





### STEP 3

## Understand Concerns and Build Trust in Communities at Risk for VPDs

To effectively address vaccine hesitancy concerns and outbreaks, IPs should understand what the barriers and facilitators to vaccination are for particular subpopulations and engage community members in culturally competent ways to build trust in immunization program activities.

### Key Considerations

- + Understanding the concerns and perspectives of a particular subpopulation regarding vaccines requires soliciting their viewpoints and using those data to develop strategies and messaging.
- + Having staff and/or partners who are members of the population or who live in the affected geographic area helps to build trust with community members and also educate IP staff.
- + Hiring processes can be cumbersome and lengthy, which impacts IPs' ability to quickly hire staff that can assist with outbreak response and outreach. Consider working with human resources to establish a mechanism for hiring staff to address urgent needs.
- + To build trust, the IP needs to demonstrate that it hears community members' concerns beyond immunization. Providing information on issues community members are interested in, not just the information that the IP wants to provide, shows respect and support.
- + Building trust also stems from adjusting communication and outreach response approaches based on understanding cultural differences.
- + Building trust also includes continuing engagement with a community after an outbreak, and collecting data from that community to inform future outreach efforts.
- + Engage existing health department staff that may already conduct outreach to communities.

### EXAMPLES

#### Examples of understanding community concerns



Prior to an outbreak, one state interviewed parents, health care providers, and health department staff representing communities to better understand concerns related to MMR and autism. The IP also formed a Public Health Advisors group consisting of community members, and collaborated with the local university on an autism symposium.



Following a mumps outbreak in a community, a local health jurisdiction conducted focus groups with mothers regarding vaccine hesitancy concerns. During the recent measles outbreak, they held stakeholder meetings with local religious and community leaders and elected officials.



### PROGRAM MANAGER INSIGHT

“I definitely would say that to be effective in the community, you have to have staff that looks like the community. I think that’s really important.”



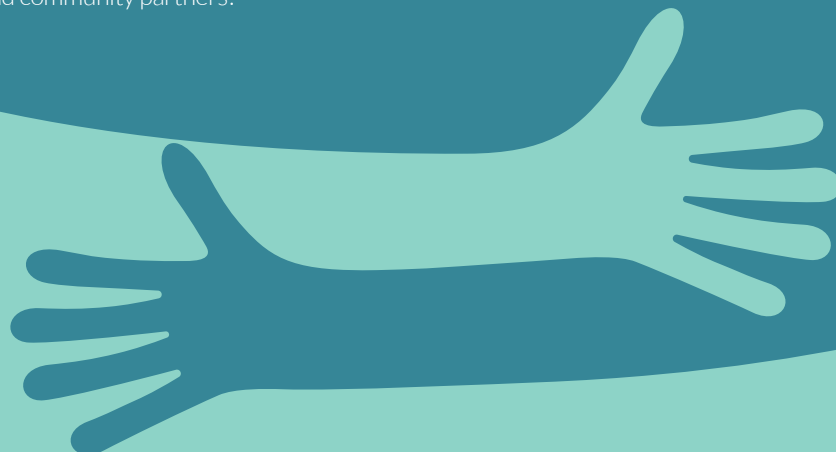
### EXPERIENCE FROM THE FIELD

#### Overcoming HR Barriers to Hiring During an Outbreak

One state created outbreak-specific positions, such as Outbreak Epidemiologists and Outbreak Health Program Representatives. These positions were approved through HR so that if another outbreak occurs, these jobs can be posted immediately.

## Help Faith Leaders Support COVID-19 Vaccination

Many faith leaders across religions are ready to do their part to improve COVID-19 vaccine access in their communities. AIM developed a handout with faith leader partners that offers actionable guidance for working with immunization programs and healthcare institutions to support COVID-19 vaccination efforts. Download at <https://bit.ly/AIMFaithLeaders> and share with faith and community partners!



## EXAMPLES

### Examples of how religion, race, and ethnicity can impact approach to response

**NOTE:** The examples were gathered from observations about particular communities in specific states. These generalizations may not apply to people in your community.

#### ✓ ROLE OF GOVERNMENT



- + Generally, there is distrust of government in Somali communities due to the political upheaval in Somalia.
- + For Eastern European communities, there tends to be a lack of trust in government and in medical infrastructure and doctors in their home countries.

#### ✓ ROLE OF RELIGION



- + Imams have noted that there are tenets or perspectives in the Muslim faith that favor prevention.

#### ✓ COMMUNICATION HIERARCHY



- + In Hmong communities, there is a clan leadership structure that provides a more streamlined approach to communication.
- + Among Somali communities, there is a strong oral tradition.

#### ✓ DAILY ROUTINES



- + The Amish may not drive cars, but they may travel by hiring someone to drive them.

#### ✓ LIVING CONDITIONS



- + The Amish may use outhouses, so the instructions for collecting stool samples to track outbreaks have to be adapted accordingly.

## EXPERIENCE FROM THE FIELD



### Building Trust

After an outbreak in a specific community, a health department staff person who identified as a community member, reached out to 300 families who had vaccinated their children after or during the outbreak. They asked about their experiences to build on their success. They also saw it as a way to show the Health Department cares about their views, as this is an important component of building trust and relationships.

## EXAMPLES

### Examples of engaging other health department programs or agencies to reach communities



The health department in one state has formed an 'international health team' within its infectious disease division to help with outreach to communities of interest. "They're really good at community engagement and reaching immigrant refugee communities."



A local health jurisdiction used WIC, Head Start, early intervention, and daycare programs to disseminate materials that were developed by community members. "That was important in terms of bringing trusted people in and having that amplified."

## Lessons Learned

- \* Find ways to get input from community members on their concerns. Consider developing a health advisory group.
- \* Consider hiring or consulting with a community member.
  - Tailor job descriptions so that job duties reflect conducting outreach with the community of interest and any relevant language preferences.
  - Explore hiring options for emergent/outbreak needs.
- \* Adapt approaches to working with communities so that the issues they want to focus on are addressed. Do not focus solely on immunizations.
- \* Take advantage of internal and/or external partners' expertise related to working with the community of interest.

## RESOURCES

- Study of Childhood Immunization in Washington State Russian-Speaking Populations. (2012). Health Promotion Practice and Policy Section, Washington State Department of Health. <https://www.doh.wa.gov/Portals/1/Documents/Pubs/348-354-RussianFocusGroup.pdf>
- Common health equity issues for Somali populations. (n.d.) StratisHealth Culture Care Connection. <http://www.culturecareconnection.org/matters/diversity/somali.html>
- A Qualitative Study of Families of Children with Autism in the Somali Community: Comparing the Experiences of Immigrant Groups. (2014, February 15). Minnesota Department of Health. <https://www.leg.state.mn.us/docs/2014/mandated/140404.pdf>

# HOW TO SUPPORT A FULLY-CONSIDERED DECISION ABOUT COVID-19 VACCINATION

IN AFRICAN AMERICAN, LATINX, AND NATIVE AMERICAN COMMUNITIES

Findings from *Understanding Diverse Communities and Supporting Equitable and Informed COVID-19 Vaccination Decision-Making*. Read more [here](#).

## ✓ PROVIDE INFORMATION ABOUT COVID-19 VACCINES

Provide information on:

- Safety monitoring and long-term impacts
- Allergic reactions
- Variants, as more information becomes available
- Speed of vaccine development
- Number of people who have been vaccinated



## ✓ ACKNOWLEDGE VALUES AND LIVED EXPERIENCE

- Share national, state, and local COVID-19 data by race, ethnicity, and those with underlying conditions. People expressed wanting information about people like them, including number of COVID-19 cases, participation in clinical trials, and vaccination rates



- Consider that some people may want to hear from local doctors, others from local vaccine recipients, and others may primarily need time and space (without pressure) to consider trade-offs or hear how others are weighing risks and benefits

## ✓ SUPPORT THE PROCESS OF DECISION-MAKING

Encourage communication and support dialogue focused on deliberation:

- Provide safe platforms for individuals to talk to trusted community experts and with each other (i.e., community conversations)
- Provide more time for individuals to think about what is best for themselves and talk with friends and family



## ✓ MAKE IT EASY TO GET VACCINATED

Wherever possible, public health and its community partners (i.e., faith-based organizations, community-based organizations) should work to remove barriers and make access to vaccination as easy as possible:



- Ensure there is equitable access and options for those who lack Internet access or the ability to monitor the computer for openings
- Let people know they are eligible for vaccination and how to make an appointment
- Ensure that there are enough dispersed locations so that people do not need to rely on public transportation
- Customize delivery to reflect community needs, such as conducting vaccinations via drive-thru, door-to-door, and mobile units
- Provide culturally appropriate materials

Project Collaborators



With support from the Robert Wood Johnson Foundation and the Horizon Foundation

## **STEP 4**

# **Develop and Disseminate Culturally Relevant Messages in Partnership with Community Members**





## STEP 4

# Develop and Disseminate Culturally Relevant Messages in Partnership with Community Members

Effective vaccine hesitancy-messaging during outbreaks relies on having identified at risk communities of interest, establishing partnerships within that community to assist with message content and/or dissemination, and understanding the concerns of community members to inform message development.

## Key Considerations

- + Traditional messages may need to be modified to address specific concerns of community members.
- + Consider that traditional approaches for disseminating information to the public may not be as effective, and that the approach may need to vary by community.
- + Consider co-branding communication messages with organizations representing community members. These partners may be seen as valuable and trusted conduits of information by community members.
- + Partners can help overcome state/local barriers related to the use of social media.
- + Materials should be provided in native languages and reflect local dialects to the extent possible.
- + The quality and literacy-level of translated materials is important; materials should be vetted by native speakers.
- + Messaging should vary over time to hold people's attention, like tailoring ads to an event important to members of that community.
- + Communication messages may come fast from other government sources without opportunity to provide input.
- + There may be some confusion within the broader community of providers and the general public if they are exposed to targeted messaging around vaccination and outbreaks.
- + Expect the vaccine opposition to be active, even during outbreaks.

## EXPERIENCE FROM THE FIELD



### Adapting Messages to Meet the Needs of Community Members

The traditional message to counter fears of an MMR-autism link is just to say there is no link between immunizations and autism without going into specifics. Over time, the IP realized that the community of interest was so concerned about autism that they needed to directly address those concerns and fears more fully. To do this, they partnered with their community health division (responsible for family home visits and child development work) so that the message from the health department was more complete. The messages went beyond saying, "Vaccines are okay," and acknowledged, "You're concerned about autism. Here's what normal child development looks like."

## Strategies to disseminate materials to communities at risk for VPDs

- ✓ Faith leaders shared training sessions with a health care provider in mosques and during Friday prayers and during Ramadan. Pediatricians would attend as content experts on immunizations, and the faith leader was there to lend their credibility and respect as well as to tie the message into the faith values that were appropriate to the message.
- ✓ IP outreach staff attended morning Imam groups.
- ✓ Low coverage rates were highlighted through radio interviews, newspapers, and local TV channels that reached community members.
- ✓ Religious leaders, community newsletters, and phone trees, shared public health messages with members of the community in their local dialect.
- ✓ A physician in a community at risk for VPDs recorded a vaccination-related message in multiple languages on an existing hotline a local nursing association used to get information to mothers in that community.
- ✓ Letters were sent to all the religious academic institutions for dissemination to parents.
- ✓ The IIS was used to target mailings in certain communities among families whose children were not up to date.



### PROGRAM MANAGER INSIGHT

“The rabbis were very much on board with vaccination clinics. The rabbis’ messages to the community members was that it was their obligation to get vaccinated to protect not only themselves but the communities there, protecting children from vaccine-preventable diseases.”



### EXPERIENCE FROM THE FIELD

#### Partnering to Disseminate Trusted Messages

A local health jurisdiction partnered with an ambulance service that routinely serves a community at-risk for VPDs to disseminate an urgent message to community members. The letter was co-branded and published in community newspapers, showing that community organizations are behind the efforts and support the health department.



#### PROGRAM MANAGER INSIGHT

“You have to know the community you’re targeting; how do they get their messages? A lot of the traditional media may or may not work. For the Amish, robocalls wouldn’t be effective. For some, Facebook or other digital venues may be really important. For example, for the ultra-Orthodox in one community, Facebook wasn’t good, but WhatsApp and good old billboards were really effective.”



#### PROGRAM MANAGER INSIGHT

“We had a big WhatsApp ad because this social media platform is very important in the targeted population. Though our health department cannot use WhatsApp, we were able to partner with a local health coalition within the targeted community to get the messages disseminated.”



#### PROGRAM MANAGER INSIGHT

“One thing we heard is that we have to vary things to get people’s attention. To improve effectiveness, we changed our messages over time as the outbreak evolved. For example, for Passover in April, we had very specific Passover ads that the community would relate to, like about Passover traditions and holiday travel.”



#### EXPERIENCE FROM THE FIELD

##### Considering the Literacy Levels of Native Language Communications

Our state makes the vaccine information statement available via audio recording for individuals that may not be able to read their native language. However, trying to keep things updated is cumbersome, expensive, and time-consuming. The program tries to do this to be more responsive to their population’s needs.

## Managing vaccine opposition during outbreaks/pandemics

- ✓ Be prepared because messaging from vaccine opposition groups can make outbreak response more challenging.
- ✓ Identify whether and how vaccine opposition groups are targeting at-risk subpopulations.
- ✓ Determine a plan for whether and how to engage with vaccine opposition.
- ✓ Look to those staff that have the skills and experience to handle conversations with vaccine opponents.
- ✓ Consider creating scripts on how to handle vaccine opposition messages.
- ✓ Reach out to partners; they can help in unexpected ways.
- ✓ Monitor vaccine opposition social media to understand messages.



### PROGRAM MANAGER INSIGHT

“We decided not to directly engage with anti-vaccine groups. We had a request from some strong vaccine opposition parents, and for us, there was no point. We didn’t know what the outcome would be, like how it could be a positive outcome. So we did not engage on that level.”



### PROGRAM MANAGER INSIGHT

“I took a lot of the calls from moms who are strongly opposed to vaccines, just because I knew I could handle it. Whereas not all of our frontline staff could handle it.”



### PROGRAM MANAGER INSIGHT

“When an anonymous group circulated an anti-immunization booklet throughout the community, a local pro-vaccine group quickly developed and self-published a document to counter the information, which the IP then disseminated.”



# MONITORING VACCINE OPPOSITION ON SOCIAL MEDIA

Project VCTR (Vaccine Communication Tracking and Response) monitors vaccine-related media conversations 24 hours a day. Project VCTR is designed like a disease surveillance system: public health analysts constantly monitor traditional and digital media to determine real-time knowledge, attitudes, and behaviors of the public related to vaccines. Initiated in 2019 by The Public Good Projects (PGP), the platform provides data and insights to public health practitioners, researchers, communicators, and members of the press. To apply for access visit <https://projectvctr.com>

---

AIM Members have a custom VCTR portal that can be accessed by visiting <https://immunizationmanagers.projectvctr.com>.

## Lessons Learned

- \* Think about not only what to communicate but how: consider which approaches and venues work for subpopulations you hope to reach.
- \* Ask trusted community members (e.g., providers, businesses, religious leaders) to review communication drafts, co-brand the materials, and help disseminate the information.
- \* Change messages throughout the outbreak to maintain interest and adapt messages to reference specific holidays or celebrations important to the community you hope to reach.
- \* Evaluate messaging for effectiveness and adjust as necessary.
- \* Translate materials to the extent possible and consider the literacy level of those you hope to reach. Have materials vetted by native speakers.
- \* Anticipate confusion from the public; clarify if vaccination recommendations pertain to a specific subset of the population.
- \* Be prepared for vaccine opposition to be active during outbreaks.

### TIPS: TRANSLATING MATERIALS

## Tips for developing translated materials

- ✓ Look for existing translated resources. (See resources listed below.)
- ✓ Reference the Immunization Action Coalition's special instructions for providing translations: <https://www.immunize.org/translate.asp>
- ✓ Determine whether your health department already contracts for translation services and has a written policy and procedures for requesting that documents be translated into different languages.
- ✓ Contact universities/institutions that provide curriculums for certified translators. The students will likely need practicum work and may offer free services.
- ✓ Reach out to your immunization coalition, as they may have contacts and/or resources to help translate materials.
- ✓ Contact your state Medicaid agency, as they are required to have materials translated.
- ✓ Ensure native speakers vet all translated materials. Translators should speak the same dialect as the community members you hope to reach.



---

## RESOURCES

- Bahta, L., Ashkir, A. (n.d.) Addressing Vaccine Hesitancy in a Diverse Community. Minnesota Department of Health. <http://www.mnaap.org/pdf/141209shotatlife/141209shotatlifeMMRVaccineHesitancy.pdf>

### NYC Materials Disseminated to Orthodox Jewish Community

- Hatzolah in NYC Joins Fight Against The Measles Outbreak – Get Vaccinated Now (2019, April 15). The Yeshiva World. <https://www.theyeshivaworld.com/news/general/1714909/hatzolah-in-nyc-joins-the-fight-against-the-measles-outbreak-get-vaccinated-now.html>
- Tzim Gezint. (n.d.) Hudson Valley Health Coalition. <https://www1.nyc.gov/assets/doh/downloads/pdf/imm/tzim-gezint-measles.pdf>
- Making PIEs Out of PEACH: MMR Edition. Bringing Current and Reliable Vaccine Information to Frum Families. (n.d.) A Slice of PIE (Parents Informed & Educated). <https://www1.nyc.gov/assets/doh/downloads/pdf/a-slice-of-pie>

### Alternative Language Materials

- Measles (Rubeola). (n.d.) Minnesota Department of Health. <https://www.health.state.mn.us/diseases/measles/measlesfacts.html>
- Measles. (n.d.) NYC Health. <https://www1.nyc.gov/site/doh/health/health-topics/measles.page>
- Measles. (n.d.) Oakland County Health Center. <https://www.oakgov.com/health/information/Pages/Measles.aspx>
- Forms and Publications Other Languages. (n.d.) Washington State Department of Health. <https://www.doh.wa.gov/YouandYourFamily/Immunization/FormsandPublications/OtherLanguage>

### Translated Health Education Materials.

- State of Hawaii COVID-19 Multilingual Resources. <https://hawaiicovid19.com/resources/#multilingual-resources>
- Iowa Department of Health (n.d.). <https://idph.iowa.gov/immmtb/rh/materials>
- Measles, Mumps, and Rubella (MMR) Vaccination: What Everyone Should Know. (n.d.) Centers for Disease Control and Prevention. <https://www.cdc.gov/vaccines/vpd/mmr/public/index.html>
- Handouts for Patients & Staff. (n.d.) Immunization Action Coalition. <https://www.immunize.org/handouts/?f=6>
- Vaccine Information Statements. (n.d.) Immunization Action Coalition. <https://www.immunize.org/vis/>
- Multi-Language Seasonal Flu Factsheets. (n.d.) Centers for Disease Control and Prevention. <https://www.cdc.gov/flu/resource-center/freeresources/multi-language-factsheets.html>
- Spanish Influenza Communication Resources. (n.d.) Centers for Disease Control and Prevention. <https://www.cdc.gov/flu/resource-center/spanish-communication/index.html>
- Become Up-To-Date With All Vaccines: ASL Translation. (2020, August 5). Centers for Disease Control and Prevention. <https://www.youtube.com/watch?v=JdcUftByvgk>

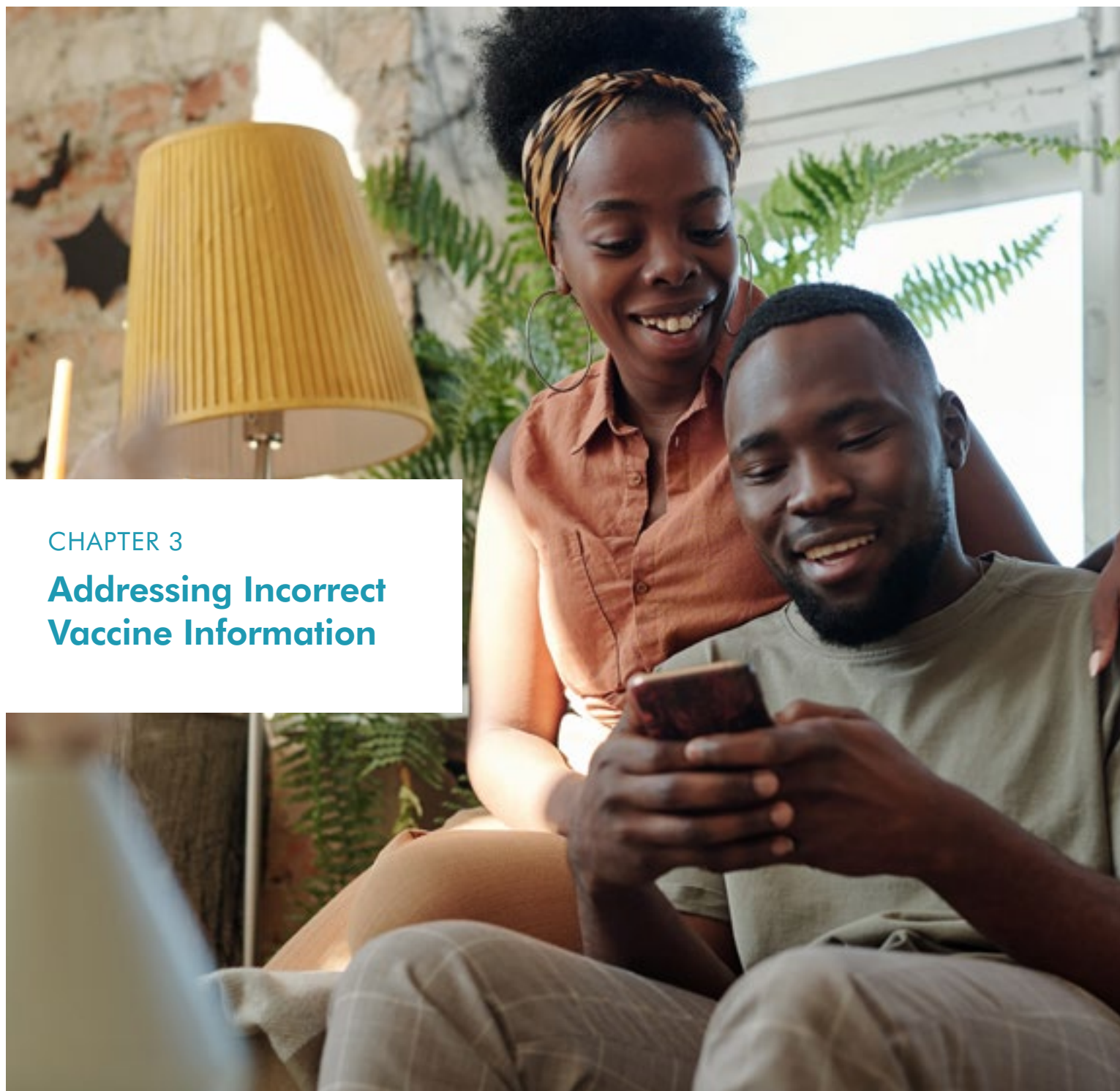
*This toolkit was made possible through support from GSK.*

*Go to [www.immunizationmanagers.org/vaccineconfidencetoolkit](http://www.immunizationmanagers.org/vaccineconfidencetoolkit) to learn more about the AIM Vaccine Confidence Resource Guide.*



Lessons from the Field:

# PROMOTING VACCINE CONFIDENCE



## CHAPTER 3

### Addressing Incorrect Vaccine Information

# Vaccine Confidence Toolkit

Access a collection of resources for promoting vaccine confidence! This toolkit is designed to equip public health immunization programs with the tools and information needed to educate providers and consumers on vaccination and build vaccine confidence.



## RESOURCE GUIDE

Outlines key lessons learned from select immunization programs and stakeholders



## WEBINAR SERIES

Features strategies and resources for addressing vaccine hesitancy and promoting vaccine confidence



## MEDIA MATERIALS

Download templates for conducting postcard reminder recall and posting on social media



## TRAININGS

Access workshops focused on building skills to promote vaccine confidence



## RESOURCE LIBRARIES

Browse this collection of resources and tools for promoting vaccine confidence

[immunizationmanagers.org/vaccineconfidencetoolkit](https://immunizationmanagers.org/vaccineconfidencetoolkit)





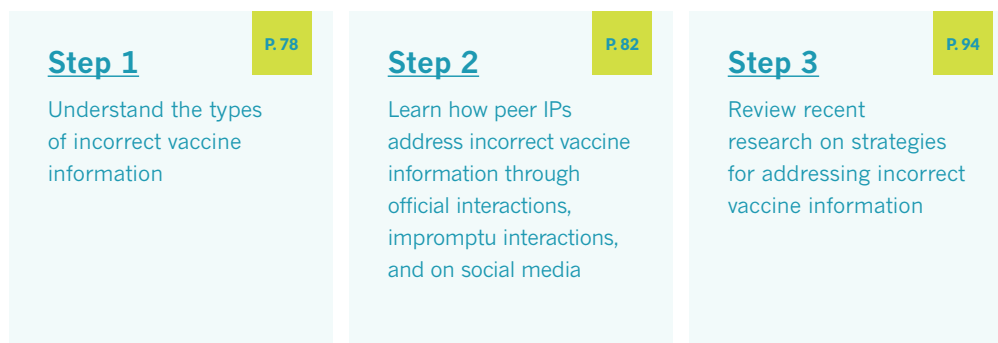
# Introduction

Incorrect information about COVID-19 that has spread throughout the pandemic has made it clear: the United States is facing an “infodemic.” As recognized by the World Health Organization (WHO) early in the pandemic’s progression, “fake news spreads faster and more easily than this virus and is just as dangerous.”<sup>1</sup> The infodemic has impacted all areas of the COVID-19 pandemic, spreading falsehoods about everything from the origin of the disease to vaccine development. This COVID-19 infodemic has emphasized the importance of ongoing research on mitigating the spread of incorrect information.

**“Using medical terms, one might say misinformation is widely prevalent, incredibly infectious, and highly resistant to currently available treatment.”<sup>2</sup>**

The 64 state, local, and territorial immunization programs (IPs), the Centers for Disease Control and Prevention (CDC), and other public health agencies are our country’s best resources for understanding and providing correct vaccine information. The extent to which an IP is involved in addressing incorrect vaccine information will vary depending on the health department’s communication structure and policies. However, it is valuable for all IPs to understand the different types of incorrect information and develop strategies for addressing them.

This chapter describes important steps for understanding and addressing incorrect vaccine information:



Step 1 summarizes the different types of incorrect information. Step 2 provides key considerations, experiences from the field, IP insight, lessons learned, and resources to help IPs (and their partners) address incorrect vaccine information. Step 3 summarizes recent research on strategies for addressing incorrect vaccine information. The checklist on page 77 can be used to quickly review the most important things to consider when addressing incorrect vaccine information.

<sup>1</sup> Munich Security Conference. (2020, February 15). The World Health Organization. <https://www.who.int/dg/speeches/detail/munich-security-conference>.

<sup>2</sup> Zucker, H.A. (2020, October). Tackling Online Misinformation: A Critical Component of Effective Public Health Response in the 21st Century. *Am J Public Health*, 110(S3), S269. doi: 10.2105/AJPH.2020.305942.

## Language That Works to Improve Vaccine Acceptance: Communications Cheat Sheet (2021)

In 2021, the de Beaumont Foundation released findings from a national poll (<https://debeaumont.org/changing-the-covid-conversation/vaccineacceptance>) which identified effective language for improving COVID-19 vaccine acceptance among all Americans, public including those who were less likely to get the COVID-19 vaccine.

---

**Tailor your message for your audience.** Americans' perceptions about vaccines and their safety differ by political party, race, age, and geography.

---

**Explain the benefits of getting vaccinated, not just the consequences of not doing it.** Say, "Getting the vaccine will keep you and your family safe," rather than calling it "the right thing to do." Focus on the need to return to normal and reopen the economy.

---

**Talk about the people behind the vaccine rather than the organizations.** Refer to the scientists, the health and medical experts, and the researchers—not the science, health, and pharmaceutical companies.

---

**Avoid judgmental language when talking about or to people who are concerned.** Acknowledge their concern or skepticism and offer to answer their questions.

---

**Use (and repeat) the word "every" to explain the vaccine development process.** For example: "Every study, every phase, and every trial was reviewed by the FDA and a safety board."

---

Check out the de Beaumont Communications Cheat Sheet ([https://debeaumont.org/wp-content/uploads/2021/01/VaccineToolkit\\_1pger.pdf](https://debeaumont.org/wp-content/uploads/2021/01/VaccineToolkit_1pger.pdf)) to see which words to use more often and which to use less often, as well as the best way to talk about the benefits of the COVID-19 vaccine.

[changingthecovidconversation.org](https://changingthecovidconversation.org)



## Checklist for Addressing Incorrect Vaccine Information:

### ✓ Understand the types of incorrect vaccine information and how it can impact your jurisdiction.

- Ensure relevant IP staff have the awareness, knowledge, and skills to classify incorrect information as misinformation, disinformation, or mal-information.
- Go to the AIM Project VCTR portal ([immunizationmanagers.projectvctr.com](https://immunizationmanagers.projectvctr.com)) to identify the type of incorrect information circulating in your region/state.
- Regularly visit the Public Health Communication Collaborative (<https://publichealthcollaborative.org>) website for messaging support, materials, and communications counsel for increasing confidence in COVID-19 vaccination.

### ✓ Use the most appropriate approach to address incorrect vaccine information in different situations: during official interactions (e.g., legislative hearings), in “impromptu” settings (e.g., news interviews, public meetings), and via social media.

- Prepare in advance. During official interactions, such as legislative hearings, incorrect information presented by others generally cannot be rebutted in the moment. IPs should prepare partners, department leadership, and legislators with accurate information before the hearing or other event.
- Cultivate a strong working relationship with your communications/public affairs office. When possible, rely on them to manage media inquiries and interview requests. Ask for their help to develop a documented strategy for handling public meetings, interviews, and phone calls.
- Ensure IP staff know the do’s and don’ts of communicating with vocal vaccine deniers in public.
- Work with your communications/public affairs office to develop a social media strategy outlining when and how to respond to incorrect vaccine information. In determining the best approach, consider the speed of social media communication, your intended audience, and the extent to which the information is inaccurate.

### ✓ Recognize that best practices for addressing incorrect vaccine information are consistently evolving. Stay up to date on the newest research.

- Become familiar with organizations that monitor and study information, like the Public Good Projects, MediaWell, First Draft, and the Shorenstein Center on Media, Politics, and Public Policy.
- Follow reliable sources—like AIM—that compile new research findings in brief and understandable formats. Read Step 3 for current findings.

## **STEP 1**

# **Understand the types of incorrect vaccine information**



## STEP 1

# Understand the types of incorrect vaccine information

Though the spread of incorrect information is an age-old problem,<sup>3</sup> its rampant spread coupled with the increase in social media use in recent years has made addressing this problem more critical than ever. Incorrect information affects public discourse on everything from elections<sup>4</sup> to immigration<sup>5</sup> to climate change<sup>6</sup> to COVID-19.<sup>7</sup>

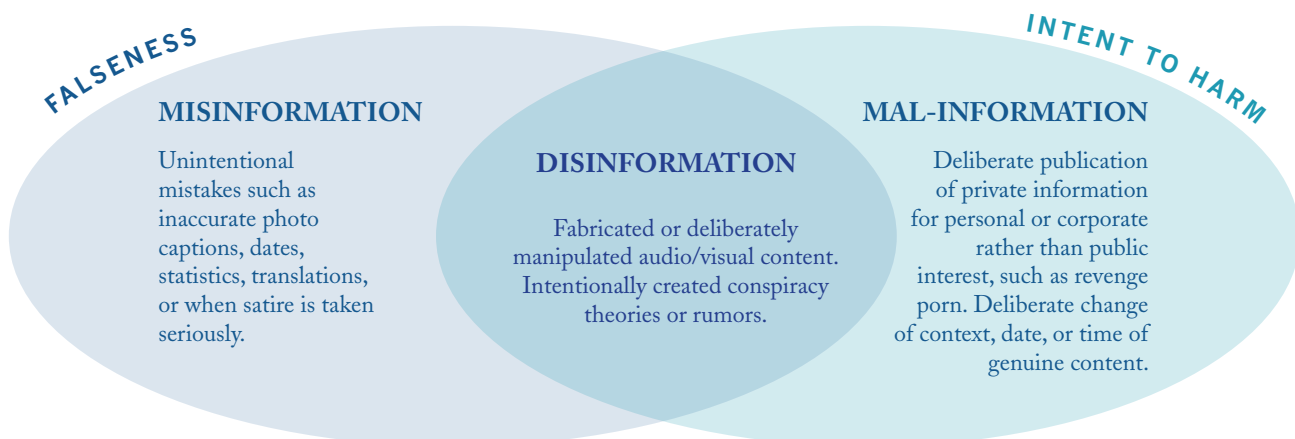
Public health has long been a target of incorrect information. Vaccine-related incorrect information campaigns began with the very first vaccine, which was developed in the 19th century to fight smallpox.<sup>8</sup> Arguments against smallpox vaccination will sound familiar, such as a focus on harm from or ineffectiveness of the vaccine. These arguments minimize the seriousness of the disease and represent an assault on personal freedoms and oppression by medical or governmental authorities.<sup>9,10</sup>

To better understand how to address incorrect information, researchers have called for moving beyond politicized terms, such as “fake news,” to more nuanced definitions of incorrect information.<sup>11,12</sup> A recently proposed framework for studying and addressing the spread of incorrect information, or what the authors call “information disorder,” defines three categories.<sup>13</sup>



The intersection of these three terms, using the concepts of falseness and intent to harm, is shown in Figure 1.

**FIGURE 1: TYPES OF INFORMATION DISORDERS<sup>13</sup>**



Another perspective is that misinformation comes from inadvertently drawing conclusions from wrong or incomplete facts, while disinformation is the deliberate spread of falsehoods to promote an agenda.<sup>14</sup> Note that misinformation is often used as an umbrella term for incorrect information, incorporating both misinformation and disinformation as defined above.

Another component of the conceptual framework defines three elements of incorrect information and suggests questions to ask about each element to better understand the nature of the incorrect information:

- + Agent (i.e., who created/distributed the information):
  - What are the characteristics of the actor (official versus unofficial)?
  - What was their motivation (e.g., financial, political, social, psychological)? Was there intent to harm or mislead?
  - To what extent was the agent organized and did they use automation (e.g., human versus bot)?
  - Who was the intended audience?
- + Message:
  - In what format was the information delivered (e.g., in person, print, audio/visual material)?
  - How durable was the information (e.g., long-term, short-term, event-based)?
  - What was the level of inaccuracy (e.g., misleading, manipulated, fabricated)?
- + Interpreter (i.e., those consuming the information):
  - How was the information received (e.g., accepted, partially accepted, rejected)?
  - What actions did they take (e.g., ignored, supported, opposed)?

Strategies to address incorrect information—focusing mainly on misinformation and disinformation—may vary and have varying degrees of success depending on the type and nature of the incorrect information. Generally, while misinformation could be addressed by providing factual information, addressing disinformation is more complicated.

## Public Health Communications COLLABORATIVE



Per its website, the Public Health Communications Collaborative was formed in 2020 “to coordinate and amplify public health messaging on COVID-19 and increase Americans’ confidence in guidance from CDC and state and local public health officials.”

The website contains resources developed with The Public Good Projects, such as:

- ★ Downloadable resources (graphics and videos) related to COVID-19 for posting online or using in presentations
- ★ A summary of media monitoring for misinformation trends
- ★ A summary of news stories trending on social media

[publichealthcollaborative.org](https://publichealthcollaborative.org)





<sup>3</sup> Darnton, R. (2017, February 13). The True History of Fake News. The New York Review. <https://www.nybooks.com/daily/2017/02/13/the-true-history-of-fake-news/>

<sup>4</sup> Fessler, P. (2020, October 24). Robocalls, rumors and emails: last-minute election disinformation floods voters. NPR Morning Edition. <https://www.npr.org/2020/10/24/927300432/robocalls-rumors-and-emails-last-minute-election-disinformation-floods-voters>

<sup>5</sup> Wright, C., Brinklow-Vaughn, R., Johannes, K., Rodriguez, F. (2020) Media portrayals of immigration and refugees in hard and fake news and their impact on consumer attitudes. Howard Journal of Communications. DOI: 10.1080/10646175.2020.1810180

<sup>6</sup> Dunlap, R.E., McCright, A.M. (2010). Climate change denial: sources, actors and strategies. In Lever-Tracy C (ed), Routledge Handbook of Climate Change and Society. Abingdon, UK: Routledge 2010. <https://www.cssn.org/wp-content/uploads/2020/12/DunlapMcCrightRoutledgeHB2010.pdf>

<sup>7</sup> Bagherpour, A., Nouri, A. (2020, October 11). COVID misinformation is killing people. Scientific American. <https://www.scientificamerican.com/article/covid-misinformation-is-killing-people1/>

<sup>8</sup> Wolfe R.M., Sharp L.K. (2002). Anti-vaccinationists past and present. BMJ 2002; 325:430

<sup>9</sup> Larsson, P. (2020, October 4). COVID-19 anti-vaxxers use the same arguments from 135 years ago. <https://theconversation.com/covid-19-anti-vaxxers-use-the-same-arguments-from-135-years-ago-145592>

<sup>10</sup> Iannelli, V. (2020, June 11). History of the Anti-Vaccine Movement. <https://www.verywellhealth.com/history-anti-vaccine-movement-4054321>

<sup>11</sup> Wardle, C., Derakhshan, H. (2018, August). Information Disorder: Toward an interdisciplinary framework for research and policy making. Council of Europe, August 2018, 2nd revised edition. <https://rm.coe.int/information-disorder-report-version-august-2018/16808c9c77>

<sup>12</sup> Jack, C. (2017). Lexicon of Lies: Terms for Problematic Information. Data & Society. [https://datasociety.net/pubs/oh/DataAndSociety\\_LexiconofLies.pdf](https://datasociety.net/pubs/oh/DataAndSociety_LexiconofLies.pdf)

<sup>13</sup> Wardle, C., Derakhshan, H. (2018, August). Thinking about information disorder: the seven formats of mis- and dis-information. Slide deck. Journalism, Fake News, and Misinformation, a UNESCO Model Course for Journalism Teachers Worldwide. CI/FEM/IPDC/JE-2018/1. [https://en.unesco.org/sites/default/files/fake\\_news\\_syllabus\\_-\\_model\\_course\\_1\\_-\\_slide\\_deck.pdf](https://en.unesco.org/sites/default/files/fake_news_syllabus_-_model_course_1_-_slide_deck.pdf)

<sup>14</sup> Igoc, K.J. (2019, July). Establishing the truth: Vaccines, social media, and the spread of misinformation. <https://www.hsph.harvard.edu/ecpe/vaccines-social-media-spread-misinformation/>

## **STEP 2**

**Learn how peer IPs  
address incorrect  
vaccine information**





## STEP 2

# Learn how peer IPs address incorrect vaccine information

The spread of incorrect vaccine information exacerbates vaccine hesitancy; therefore IPs should aim to address incorrect vaccine information wherever possible. As IPs may be confronted with incorrect vaccine information in various settings, this section describes considerations and lessons learned within three common settings: during official interactions (e.g., legislative hearings), in “impromptu” settings (e.g., news interviews, public meetings), and via social media.

## Addressing incorrect vaccine information via official interactions

Chapter 1 provided guidance on promoting vaccine confidence during legislative sessions and other official public forums. This section provides complementary information on how incorrect vaccine information is handled by IPs in the context of official interactions, such as legislative hearings or direct questions from legislators.

## Key Considerations

- + As noted in chapter 1, states and local jurisdictions typically have a government relations or legislative affairs office or liaison that deals directly with the legislature and/or executive office. The IP is not in direct control of this information flow.
- + During legislative sessions, IPs may need to field questions from legislators or their staffers (via the legislative affairs office or liaison), depending on the legislative issues being considered and constituent feedback.
- + IPs may not be directly involved in testifying at legislative hearings on immunization-related issues, though they may be involved in preparing others (e.g., health department director) to testify.
- + The allowable time for an individual’s testimony varies by jurisdiction but is usually brief.
- + Incorrect information presented in testimony by others during legislative hearings generally cannot be rebutted in the moment. Many IPs prepare follow-up written responses or otherwise try to provide feedback to legislators in advance to counter the incorrect information.
- + As with testimony, health department and IP responses to legislators’ questions focus on facts (e.g., data, science) and do not provide opinions or appeal to emotions.
- + Vaccine opposition groups may be well-funded, well-organized, and include influences from outside of the state or jurisdiction. Additionally, some legislators are increasingly discounting information from government officials and medical providers, taking what constituents say at face value.



### PROGRAM MANAGER INSIGHT

“We may go listen in [on relevant hearings]. We’ll give any feedback on what we hear to the government relations liaison so they can respond as needed.”



## Lessons Learned

- \* Work with partners (e.g., immunization coalitions, parent-led nonprofit organizations) to present testimony in ways that the IP and health department cannot, such as providing personal stories, complementary perspectives, and more aggressive messaging.
- \* Since testimony often must be short, try to provide information to legislators before (e.g., fact sheet) and after (e.g., rebuttals to incorrect vaccine information) legislative hearings.
- \* Regularly educate and prepare health department leaders (e.g., health officer) who are often called on to be the “voice” of the department or IP, particularly those who are new to the department or do not have an immunization background.
- \* Don’t forget about the constituents—prepare and release public messaging to coincide with legislative sessions that will be addressing immunization issues.
- \* The arguments from vaccine opponents are generally the same regardless of the specific immunization issue. Review issues that have been raised in past hearings, arguments being made in the media, experiences from other IPs, etc., to develop testimony or materials for legislators that preempts some of the incorrect information that is likely to be raised. (Utilize AIM’s library of questions and answers (<https://www.immunizationmanagers.org/resources/incorrect-vaccine-information>) about vaccines to inform responses to opponents - available in the Full Environmental Scan Report.)
- \* Keep publicly-released responses succinct to minimize “ammunition” for vaccine opponents.



### EXPERIENCE FROM THE FIELD

#### Responding to Comments

For an administrative rulemaking, the IP was not required to respond to each comment individually. It compiled all feedback into categories and wrote responses to address these categories. This allowed them to be responsive to concerns but not repeat/reinforce specific misinformation.



### PROGRAM MANAGER INSIGHT

“Within the policy landscape, we are expected to respond in more detail to misinformation than we would in our normal day-to-day world. I think in the normal day-to-day world, you can mostly ignore a lot of misinformation and keep talking about the benefits and what we know of the science behind vaccines. In some ways, we weren’t quite as prepared because [to address legislator questions], we needed more detailed responses to things that really were [based on] wacky misinformation.”

# Immunization Program Policy Toolkit

## RESOURCE LIBRARY



Find examples of Q&A documents in the members only – **GENERAL TOOLS** section of the Immunization Program Policy Library.

[www.immunizationmanagers.org/Policytoolkit](http://www.immunizationmanagers.org/Policytoolkit)



### Incorrect Vaccine Information Repository

Vaccine confidence and support have suffered over the years as incorrect information is more widely disseminated. AIM has compiled resources and correct information about vaccines for public health practitioners and providers to use in their outreach and education efforts.

- Q&A about vaccines to help educate community members, patients, and others
- 2020 Environmental Scan: Vaccine Disinformation, Misinformation, and Mal-information. The summary also includes suggested activities for IPs.

<https://www.immunizationmanagers.org/resources/incorrect-vaccine-information>

### RESOURCES

- Legislative Communications Toolkit (n.d.). Iowa Department of Public Health.  
<https://idph.iowa.gov/do/Legislative-Communications-and-Engagement/Toolkit>

## Addressing incorrect vaccine misinformation in impromptu situations

Another setting in which IPs may be confronted with incorrect vaccine information is during impromptu situations, such as public meetings, media interviews, and speaking engagements.

### Key Considerations

- + Health departments generally have a public affairs office that manages all media inquiries and interview requests.
- + Many IPs do not have official guidelines for dealing with impromptu situations, and some have shared that they typically avoid these situations.
- + There has been a shift in the tone of some media questioning, from more broad and neutral questions (e.g., “Why are people concerned?”) to asking specifically about (and therefore giving exposure to) more fringe vaccine rumors and incorrect vaccine information.
- + It is difficult to directly counter emotional personal stories with the types of scientific, fact-based responses that health departments generally provide—which can come across as cold and uncaring.
- + There is a need for more people who are able to convey empathy while giving an appropriate public health response.



#### PROGRAM MANAGER INSIGHT

“I had a team to support me through the press office and with talking points, vetting the different requests we would get, deciding whether we would do a full interview, whether we would just send a statement. We decided not to directly engage with a request by [vaccine opposers]. We didn't know how it could be a positive outcome, so we did not engage on that level.”

### Lessons Learned

- \* Be prepared! Have a few main points on which to focus or redirect attention to and anticipate/topics that are likely to be addressed.
- \* Don't say or do anything that you wouldn't want to be on the front page of a newspaper (or trending on Twitter).
- \* Address the issue (e.g., make a correction or make an affirmative statement) with data or evidence-based information; otherwise, defer and direct it to the public affairs office.
- \* Assume that public or telephone interactions are being recorded.
- \* Have a strategy for handling phone calls. Do you have scripts? Who's taking those calls? That person should have communications experience and be able to control their emotions during potentially volatile conversations.
- \* Cultivate a strong working relationship with your jurisdiction's public affairs office.

---

## RESOURCES

- Media Training Guide (n.d.). Vaccinate Your Family. <https://www.immunizationmanagers.org/content/uploads/2021/10/Vaccinate-Your-Family-Media-Training-Guide.pdf>
- Draft a Successful Pitch to a Reporter (n.d.). Vaccinate Your Family. [https://www.immunizationmanagers.org/content/uploads/2021/10/Draft\\_a\\_Successful\\_Pitch\\_to\\_a\\_Reporter.pdf](https://www.immunizationmanagers.org/content/uploads/2021/10/Draft_a_Successful_Pitch_to_a_Reporter.pdf)

### **Communicating in a Crisis: Risk Communication Guidelines for Public Officials**

These guidelines, developed by the Substance Abuse and Mental Health Services Administration (SAMSHA), provide public officials and others involved in disaster and emergency communications with information about effective communication, working with the media, using social media, and addressing errors and controlling rumors.

For example, in the section on presenting information at public meetings, they address the importance of setting the tone with the introduction.

Remember that perceived empathy is a vital factor in establishing trust and building credibility, and it is assessed by your audience in the first 30 seconds. Include the following in your introduction:

#### **Statement of personal concern:**

“I can see by the number of people here tonight that you are as concerned about this issue as I am.”

#### **Statement of organizational intent:**

“I am committed to protecting the health and safety of the public. The Mayor and his staff have been involved with this community for a long time and want to work with the community on this issue.”

---

#### **Citation:**

Communicating in a Crisis: Risk Communication Guidelines for Public Officials (2019, October). SAMHSA. Publication No. PEP19-01-01-005. <https://store.samhsa.gov/product/communicating-crisis-risk-communication-guidelines-public-officials/pep19-01-01-005>

Risk Communication (n.d.). CDC. <https://www.cdc.gov/healthcommunication/risks/index.html>

## Addressing incorrect vaccine information on social media

Social media use has had a tremendous impact on the spread of incorrect vaccine information. According to Project VCTR's data, messages in opposition to vaccines have more than doubled during the COVID-19 pandemic. Since March 2020, these messages have been viewed more than 4.5 billion times. In 2020, Project VCTR identified 3.1 million mentions of vaccine opposition across social and digital media, including online forums and Q&A websites. That's an average of 9,300 mentions per day. According to a Public Good Projects study, vaccine opposition on Twitter increased by 80% in the four months after COVID-19 spread began in the U.S., compared to the four months prior.

The high volume and consistency of vaccine opposition messaging demonstrates the need for IPs to develop a plan for how and when to address incorrect vaccine information on social media.

---

### RESOURCES

- Social Media Fact Sheet (2019, June 12). Pew Research Center. <https://www.pewresearch.org/internet/fact-sheet/social-media>
- Year in Vaccine Opposition 2020 (2021). Project VCTR. [https://projectvctr.cdn.prismic.io/projectvctr/60c417e6-591c-447a-a7e8-30ab510b4bac\\_2020\\_vctr\\_year\\_in\\_review\\_1.pdf](https://projectvctr.cdn.prismic.io/projectvctr/60c417e6-591c-447a-a7e8-30ab510b4bac_2020_vctr_year_in_review_1.pdf). Accessed March 5, 2021

## Key Considerations

- + Health departments often have a public affairs office that manages the departments' social media accounts. IPs may have very limited direct engagement with that team.
- + The extent to which incorrect information is inaccurate should be considered when deciding whether it's worth it to respond to it, as responding could cause more damage than good.
- + A key feature of social media communication is speed—the speed at which information is posted and how fast information becomes out of date—which is counter to how health department communications typically work. Health department social media accounts are unlikely to be monitored 24/7, and posts and responses often go through many drafts and approvals to ensure consistency and accuracy before they can be posted.
- + One of the challenges is that vaccine opponents are picking out things to post that are actually based on science, but are taking them completely out of context.



### PROGRAM MANAGER INSIGHT

“We do not respond directly to any comments or posts from vaccine-hesitant parents or anti-vaccine groups. Those posts are actually removed by the agency's communication team. We don't even monitor social media at the IP level; it's all done through our agency's communication department. We're allowed to give them input, and if we have things we wanted to post, they would do that for us, but all of it is done by that department on our behalf.”



# MONITORING VACCINE OPPOSITION ON SOCIAL MEDIA

Project VCTR (Vaccine Communication Tracking and Response) monitors vaccine-related media conversations 24 hours a day. Project VCTR is designed like a disease surveillance system: public health analysts constantly monitor traditional and digital media to determine real-time knowledge, attitudes, and behaviors of the public related to vaccines. Initiated in 2019 by The Public Good Projects (PGP), the platform provides data and insights to public health practitioners, researchers, communicators, and members of the press. To apply for access visit **[projectvctr.com](https://projectvctr.com)**.

---

AIM members have a custom VCTR portal that can be accessed by visiting **[immunizationmanagers.projectvctr.com](https://immunizationmanagers.projectvctr.com)**.



### PROGRAM MANAGER INSIGHT

“I think the best way is having communication from peer-to-peer versus from a parent to a government entity. So that's why programs like [ours] work pretty well because it's parent-based, providing information to other parents.”

## Lessons Learned

- \* If you are unsure about whether or how to respond, run it through your public affairs office.
- \* If responding to inaccurate information, respond with facts—not opinions—and do not argue.
- \* Remember that the intended audience for posts and responses are people who are vaccine hesitant and have questions and concerns, not the small percentage of true deniers.
- \* For countering general vaccine opposition, continue relaying the message that most people are getting vaccinated.
- \* Where relevant, acknowledge that it is normal to have questions and concerns about vaccines.
- \* Work with partners who can post information more quickly and may be able to provide a catchier or more emotional appeal.
- \* As outlined in the U.S. Department of Health and Human Services social media policies, consider the value in liking/following a specific entity and what it may convey to your audience. In many cases, following an organization may convey endorsement of the entire entity, while retweeting or reposting content from another entity may only imply endorsement of the content that is being reposted.



### PROGRAM MANAGER INSIGHT

“Straightforward things like incorrect data, that's one thing, but if it's statements about safety of vaccines or benefits of vaccines, those can get a little political at times. This is a very conservative state, so on some topics, we have to weigh the political fallout.”



## EXPERIENCE FROM THE FIELD

### Responding to Comments

One state IP that only uses Facebook doesn't allow comments to be visible to the public and will respond privately if there are specific questions that can be answered.



## RESOURCES

- Social Media Tools, Guidelines & Best Practices (n.d.). CDC. <https://www.cdc.gov/socialmedia/tools/guidelines/index.html>
- Social Media Policies (n.d.). U.S. Department of Health and Human Services. <https://www.hhs.gov/web/social-media/policies/index.html>
- Media and Communications Policy (n.d.). Indiana Department of Health. <https://www.medialab.com/dv/dl.aspx?d=1156811&dh=2cfd&u=95194&uh=670d6>
- Social Media Standard (2021, January 12). State of Michigan Technical Standard. [https://www.michigan.gov/documents/dtmb/1340.00.130.03\\_Social\\_Media\\_Standard\\_604897\\_7.pdf](https://www.michigan.gov/documents/dtmb/1340.00.130.03_Social_Media_Standard_604897_7.pdf)
- Pittman, E (2017, March 28). How to manage the 3 types of negative comments on social media. Government Technology. <https://www.govtech.com/govgirl/How-to-Manage-the-3-Types-of-Negative-Comments-on-Social-Media.html>
- Municipal Research and Services Center (MRSC) is a nonprofit organization that helps local governments across Washington State better serve their communities by providing legal and policy guidance:
  - Social Media Use by Public Agencies - some tips for consideration (2017). MRSC. <http://mrsc.org/getmedia/6b62aac2-9802-42e2-a594-67d13c557f2e/pubagsocmediapol.aspx>
  - Social Media Policies (n.d.). MRSC. <http://mrsc.org/Home/Explore-Topics/Management/Information-Technology/Social-Media.aspx#Wash>
  - Establishing Effective Social Media Policies for your Agency (2015, February 24). MRSC. <http://mrsc.org/Home/Stay-Informed/MRSC-Insight/February-2015/How-to-Write-a-Good-Social-Media-Policy.aspx>
- Social Media Guidelines & Sample Policies. (n.d.). The Office of The Governor. <https://www.governor.wa.gov/news-media/social-media/guidelines-sample-policies>
- Social Media Links and Commenting Policy. (n.d.). Washington State Department of Health. <https://www.doh.wa.gov/Newsroom/SocialMedia>
- Social Media Toolkit: a primer for local health department PIOs and communications professionals. (2019, July). NACCHO. <https://www.naccho.org/uploads/downloadable-resources/Social-Media-Toolkit-for-LHDs-2019.pdf>
- Dalton, K. (2017, December 27). The case for the Social Media Coordinator. Government Technology. <https://www.govtech.com/social/The-Case-for-the-Social-Media-Coordinator.html>

## AIM Project VCTR Webinar Archive

### AIM Webinar: Tracking Vaccine Opposition Movement and Vaccine Perceptions

On July 24, 2020, Dr. Joe Smyser, CEO of the Public Good Projects, presented information on their Vaccine Communication Tracking and Response tool, which monitors social media content to track anti-vaccine activities and vaccine perceptions. Dr. Smyser provided an overview of the tool, reviewed vaccine opposition messaging trends that have emerged during the COVID-19 pandemic, and provided insight into evidence-based communication strategies to improve vaccine confidence.



#### **WATCH THE WEBINAR** *(only accessible to AIM members)*

<https://www.immunizationmanagers.org/resources/vaccine-confidence-toolkit-webinar-series/>

## What the Research Says About Online Vaccine Misinformation

For *Meeting the Challenge of Vaccination Hesitancy*, a report published in June 2020 by the Sabin-Aspen Vaccine Science & Policy Group, researchers Renée DiResta and Claire Wardle authored a background paper on online misinformation about vaccines. Based on their own research and relevant references, they:

- Demonstrate how online vaccine misinformation is a global issue.
- Describe the challenges of studying online misinformation, such as:
  - Limited access to the data from individual social media platforms that would help determine the prevalence and flow of vaccine misinformation.
  - The multiple forms in which this misinformation is shared, including websites, Facebook posts, Instagram memes, tweets, and videos.
- Observe that professional health experts are generally not experts in generating compelling social media content. “Emotion is the currency of social media networks because facts are rarely as engaging, unless they are packaged in incredibly appealing ways.”
- Note that although the basic anti-vaccine arguments have not really changed, features of social media platforms enhance the spread of their message due to:
  - The reach of relatively few platforms to a global audience.
  - Their ad-based business model, which allows targeting of ads and content based on individual profiles.
  - Recommendation algorithms and content sharing, which amplify and quickly spread emotionally engaging content.
- Discuss policies of specific social media platforms (Facebook, Instagram, Google, YouTube, and Pinterest) on addressing vaccine misinformation and the recent positive (though insufficient) response of these platforms to COVID-19 misinformation.

They conclude by observing that peer-to-peer communication is the core of social media, which has been more conducive to spreading vaccine misinformation, and that the “pro-vaccine” community will need to adapt to accordingly.

---

### Citation:

DiResta, R., Wardle, C. (2020, June). Meeting the Challenge of Vaccine Hesitancy. Sabin-Aspen Vaccine Science & Policy Group. <https://www.sabin.org/updates/resources/meeting-challenge-vaccination-hesitancy>



## **AJPH October 2020 Supplement 3: Health Misinformation on Social Media**

A supplement to the October 2020 issue of the American Journal of Public Health is devoted to health misinformation on social media. The issue features research and perspectives on the dangers (and opportunities) posed by a shift in how modern populations consume health information via social media. Just as the spread of misinformation by malicious and unwitting parties poses a threat to public health and the credibility of institutional knowledge, so too do these platforms offer new approaches to counteract rumors and intentional deception in real time and with targeted strategies. Specific themes covered include misinformation related to cancer prevention and treatment, vaccines, and infectious disease outbreaks.

Table of Contents:  
[www.ajph.aphapublications.org/toc/ajph/110/S3](http://www.ajph.aphapublications.org/toc/ajph/110/S3)

## **STEP 3**

**Review recent research  
on strategies for  
addressing incorrect  
vaccine information**



## STEP 3

# Review recent research on strategies for addressing incorrect vaccine information

The COVID-19 pandemic has been accompanied by an unprecedented amount and spread of misinformation and disinformation in the public sphere. For public health professionals, the pandemic has illustrated the particular challenge of dealing with a crisis situation, and the difficulty in addressing incorrect information about a potential vaccine when there is such a high level of uncertainty and no real facts with which to combat the inaccurate information. Heightened efforts to address vaccine confidence predate the pandemic, but since then, there has been wider recognition of the challenges of incorrect information and expanded research on characterizing and addressing incorrect information.

Recent findings on strategies for addressing incorrect information generally, and vaccines specifically, are briefly summarized in this section. Because this information is being updated rapidly, having a reliable source—like AIM—that can compile new research findings in brief and understandable formats will be critical going forward.

Stemming the spread and impact of incorrect vaccine information requires a multidisciplinary, multisector effort<sup>14,15</sup> including all levels of government (federal, state, local), social media and mass media companies, advocacy organizations, and the medical community.

Social media and other online platforms have taken some actions to moderate content to help stem the spread of misinformation.<sup>16,17</sup> These “front of the pipeline” efforts are helpful but not sufficient, and may introduce unintended secondary problems.<sup>17-20</sup> In addition, these companies have to walk a fine line between censorship and accurately identifying incorrect information. Research continues to refine the tools that help platforms identify misinformation.<sup>21</sup>

Research findings on addressing incorrect information that are most relevant to IPs, and public health agencies more broadly, as well as their partners, are discussed below.

## Key Considerations and Lessons Learned

*The information is presented below as if addressing incorrect vaccine information is under the direct purview of IPs, though it is understood that that is not necessarily the case and that public health agencies and external partners will also be critical to their success.*

- + Once inaccurate beliefs are formed, they are more difficult to counteract.<sup>22</sup> Even after learning information is false, people tend to still at least partially believe it, as it is difficult to remove once it’s encoded in memory.<sup>2,23</sup>
- Proactively increasing pro-vaccination content in social and traditional media is important, though not sufficient.<sup>24,25</sup>
- Strategies for proactively disseminating pro-vaccine content include:
  - Establishing relationships with and disseminating information through verified local media outlets.<sup>26,27</sup>
  - Investing in staff that are trained and capable of understanding how to build and maintain a social media presence.<sup>24</sup>
  - Building a presence on social media by regularly engaging audiences on social and digital channels by frequently posting timely, reliable, and transparent information.<sup>26,28</sup>
  - Using facts and evidence, humanizing the threat of disease, creating safe spaces for asking questions, and being responsive to audience concerns.<sup>28</sup>



- Going beyond the unidirectional provision of information.<sup>29</sup>
  - Contacting social media platforms for free public service advertising.<sup>27</sup>
- + When IPs do not acknowledge or address incorrect vaccine information, it leaves an information gap that could inadvertently imply IP agreement or be further filled by spreaders of incorrect information.<sup>29,30</sup>
- To inform a response, it is important to understand what types of incorrect vaccine information are circulating. Public health officials should be monitoring multiple types of media to understand the current questions and knowledge gaps and have a strategy to respond and counter incorrect information.<sup>27,31,32</sup>
  - Develop a monitoring protocol to decide which misinformation is gaining traction and define a tipping point for responding, such as if/when it moves across platforms or someone newsworthy distributes it.<sup>27</sup>
  - Track comments that the organization receives via social media, telephone, and email.<sup>28</sup>
  - No one should respond to misinformation unless there is a good reason to do so and there is a plan for communicating it publicly.<sup>27</sup>
- + There is no one-size-fits-all approach to messaging “consumers” of incorrect information. Their susceptibility to incorrect information varies.
- People who believe misinformation may not have sufficient health literacy, or the misinformation may be consistent with pre-existing beliefs and worldviews.<sup>33</sup>
  - Vaccine acceptors, vaccine rejecters, and fence-sitters exhibit different moral preferences (e.g., liberty, authority, concern for others), which influence their vaccine beliefs.<sup>34</sup>
  - Corrective information that runs counter to a person’s worldview can ironically strengthen the misinformation, particularly for contentious issues.<sup>22</sup>
  - To help people better evaluate incorrect vaccine information, especially on social media, IPs can partner with or support coalitions and advocacy groups in educating the public on increasing health/media literacy.<sup>22,26,35-38</sup>
  - To be most effective, information corrections should be tailored by audience subgroups, such as age, risk, world view, and values.<sup>22,23,31,36,39,40</sup>
  - There are two audiences for corrective information on social media, the “agent” who posted the misinformation and the “interpreter” who saw the misinformation. The “agent” is typically more resistant to change.<sup>41</sup> IPs should be mindful of the “silent audience” or those not engaging but observing.<sup>28</sup>
  - Do not forget about vaccine acceptors. They need to have their vaccine decisions valued and reinforced.<sup>29</sup>
- + The content of messages to counter incorrect information should be evidence-based.
- Efforts to address incorrect information need to be cautious to avoid backfiring.<sup>38</sup>
  - The spread of misinformation is driven by emotions. It is very difficult to combat emotions with facts, which is the typical public health approach.<sup>2</sup>
  - Using a myth versus fact format is not effective, as it brings attention to the myths.<sup>42</sup>
  - Although corrections can prove to be ineffective or even counterproductive, most often, they work.<sup>43</sup>
  - Harness the power of narratives by replacing the incorrect information with alternative narratives and not just facts where possible.<sup>36,44</sup>

## Organizations doing misinformation research

**Public Good Projects (PGP)** is a public health nonprofit composed of experts in public health, media, and marketing. PGP's mission is to revolutionize public health communication so that business and public sector programs have greater impact and communities are healthier. Approaches include long-form documentaries, long-term campaigns, media monitoring and bots, grassroots social media organizing, and thought leadership. [publicgoodprojects.org](https://publicgoodprojects.org)

- Their December 2020 research quantifying the rise of vaccine opposition messaging on Twitter provides a useful window into the scope of messages designed to erode vaccine confidence.
- Project VCTR's publication on vaccine opposition messaging in 2020 demonstrates the scope of opposition messages and provides insight into top health issues, themes, hashtags, and news used by vaccine opposition groups.

**MediaWell** compiles news and scholarship on digital disinformation and misinformation. Their literature reviews and news collections curate the latest knowledge on networked democracy, media, and technology. [mediawell.ssrc.org](https://mediawell.ssrc.org)

- This group is currently compiling a report on mitigating misinformation: [mediawell.ssrc.org/research-topics/mitigating-misinformation](https://mediawell.ssrc.org/research-topics/mitigating-misinformation)

**First Draft's** mission is to protect communities from harmful misinformation. They work to empower society with the knowledge, understanding, and tools needed to outsmart false and misleading information. [firstdraftnews.org](https://firstdraftnews.org)

- In 2020, First Draft launched a 3-part series on the psychology of misinformation, focusing on: (1) why we're vulnerable, (2) why corrections are so hard, and (3) how to prevent it [firstdraftnews.org/long-form-article/the-psychology-of-misinformation/](https://firstdraftnews.org/long-form-article/the-psychology-of-misinformation/)

**The Shorenstein Center on Media, Politics, and Public Policy** is the Harvard Kennedy School's research center dedicated to exploring and illuminating the intersection of press, politics, and public policy in theory and practice. The Center strives to bridge the gap between journalists and scholars, and between them and the public. One of its programs focuses on misinformation, including *The Harvard Kennedy School Misinformation Review*, which is a new format of scholarly publication with a fast approach to peer review. [shorensteincenter.org](https://shorensteincenter.org)  
[misinforeview.hks.harvard.edu](https://misinforeview.hks.harvard.edu)

---

### Citation:

Bonnevie, E., Gallegos-Jeffrey, A., Goldberg, J., Byrd, B., Smyser, J. (2020, December). Quantifying the rise of vaccine opposition on Twitter during the COVID-19 pandemic. *J Commun Healthc*. doi:10.1080/17538068.2020.1858222

Year in Vaccine Opposition 2020. (2021). [https://projectvctr.cdn.prismic.io/projectvctr/60c417e6-591c-447a-a7e8-30ab510b4bac\\_2020\\_vctr\\_year\\_in\\_review\\_1.pdf](https://projectvctr.cdn.prismic.io/projectvctr/60c417e6-591c-447a-a7e8-30ab510b4bac_2020_vctr_year_in_review_1.pdf).

Starbird K., Spiro, E.S., Koltai, K. (2020, June 25). Misinformation, Crisis, and Public Health—Reviewing the Literature, Social Science Research Council, MediaWell. <http://doi.org/10.35650/MD.2063.d.2020>



# Research on Managing Misinformation on Social Media Platforms

Findings from some social media platform-specific research are summarized below. Government involvement on some common platforms (e.g., Twitter, Pinterest) is uncommon, and communication is typically one way rather than a dialogue.<sup>19,30</sup> Just removing misinformation from these platforms is not sufficient. Public health officials and their partners must ensure that accurate information is widely accessible on these platforms.<sup>18</sup>

## Twitter

- + Twitter bots and trolls have a significant impact on online communications about vaccines. Trolls and bots post vaccine-related content at higher rates and promote both pro-and anti-vaccination messages, to promote discord.<sup>46</sup>
- + However, other research showed that bots are responsible for only a small proportion of the vaccine-related content that active Twitter users see, and engagement is negligible.<sup>37</sup>
- + Well-intentioned pro-vaccine posts may have the unintended effect of “feeding” the trolls, especially if content directly engages with anti-vaccine content.<sup>46</sup>
- + Major talking points used by vaccine opponents originate from just a handful of accounts. Identifying and countering a small set of arguments and highly influential accounts could be an effective way to address misinformation.<sup>18,20,37,47</sup>
- + With character limits, tweets do not allow for contextualization, making it easier to mislead by using sensational falsehoods or manipulations of real data.<sup>48</sup>
- + Source credibility may be more important for users to gauge validity.<sup>48</sup>
- + Rather than address rumors directly and risk amplifying them further, it may be more beneficial for vaccine advocates to continue to emphasize the safety and efficacy of vaccines in general terms. Engaging bot-driven narrative only further amplifies the message.<sup>48</sup>
- + Pro-vaccine Twitter users that use humor to criticize anti-vaccine and anti-science tweets may inadvertently mislead and further provoke anti-vaccine content.<sup>48</sup>

## Facebook

- + Based on analysis of Facebook content, vaccine opponents increasingly oppose vaccination as a matter of political principle (using a civil liberties’ argument) rather than because of vaccine safety concerns.<sup>49</sup>
- + A civil liberties frame implies a legitimate debate about vaccination and takes attention away from the social rationales for vaccination. IPs need to be able to communicate the appropriate and compelling social context for vaccine decisions.<sup>49</sup>
- + Challenges for public health include limited resources, which keeps the program from devoting the attention necessary to maintain a constant media presence, and a wish (or requirement) to avoid the appearance of partisan or political views.<sup>49</sup>
- + Anti-vaccine pages seemed to reflect homogenization of content, suggesting coordinated action to drive content.<sup>49</sup>

- Provide an alternate explanation—ideally, one that is more plausible and easier to understand—to “switch out” the inaccurate information and fill the gap.<sup>22,35,43</sup>
- Minimize unnecessary explicit repetition of misinformation, but do explain why the misconception was disseminated and provide ample information on why it is wrong.<sup>22,35</sup>
- Inoculation (explaining the technique underlying the misinformation) can be effective<sup>45</sup> but much more so as a post-warning than a forewarning.<sup>43</sup>
- Repetition of corrections helps to reduce the “continued influence” effect.<sup>35</sup> Programs should promote the same information across as many channels as possible.<sup>27</sup>
- Use high credibility sources. Trust and perceived honesty and integrity seem to matter more than expertise.<sup>22</sup> People are more likely to trust information from an unknown source shared by a trusted sharer than the same information from a reputable source shared by someone they do not trust.<sup>26</sup> Develop tools to help the public identify credible information sources.<sup>23</sup>

---

## RESOURCES / OTHER POTENTIAL ITEMS OF INTEREST

*Vaccine Misinformation Management Field Guide: Guidance for Addressing a Global Infodemic and Fostering Demand for Immunization*, published December 2020, helps organizations address the global infodemic through strategic and well-coordinated action plans to build vaccine confidence and counter misinformation. [vaccinemisinformation.guide](https://vaccinemisinformation.guide)

### CDC Vaccinate with Confidence Initiative

**Vaccinate with Confidence** is CDC’s strategic framework to strengthen vaccine confidence and prevent outbreaks of vaccine-preventable diseases in the United States, through three key priorities:

- **Protect Communities:** CDC will support states, cities, and counties to find pockets of under-vaccination and take steps to protect their communities.
- **Empower Families:** CDC will expand resources for health care professionals to support effective vaccine conversations.
- **Stop Myths:** To stop misinformation from eroding public trust in vaccines, CDC will work with local partners and trusted messengers to:
  - improve confidence in vaccines among at-risk groups;
  - establish partnerships to contain the spread of misinformation; and
  - reach critical stakeholders to provide clear information about vaccination and the critical role it plays in protecting the public.

[www.cdc.gov/vaccines/partners/vaccinate-with-confidence.html](https://www.cdc.gov/vaccines/partners/vaccinate-with-confidence.html)

[www.cdc.gov/vaccines/partners/downloads/Vaccinate-Confidently-2019.pdf](https://www.cdc.gov/vaccines/partners/downloads/Vaccinate-Confidently-2019.pdf)

**Office of Disease Prevention and Health Promotion**, U.S. Department of Health and Human Services.

**Health Literacy website:** [health.gov/our-work/health-literacy](https://health.gov/our-work/health-literacy)

- Featured initiative: Health Literacy Online [health.gov/healthliteracyonline](https://health.gov/healthliteracyonline)

**National Prevention Information Network (NPIN)**, CDC. **Health Communication Strategies and Resources** website: [npin.cdc.gov/pages/health-communication-strategies-methods](https://npin.cdc.gov/pages/health-communication-strategies-methods)

- New Methods For Health Strategy Communication: [npin.cdc.gov/pages/health-communication-strategies-methods](https://npin.cdc.gov/pages/health-communication-strategies-methods), including:
  - CDC’s “Designing and Implementing an Effective Tobacco Counter-Marketing Campaign” offers information on using media literacy strategies relevant for any public health campaign [www.cdc.gov/tobacco/stateandcommunity/counter-marketing](https://www.cdc.gov/tobacco/stateandcommunity/counter-marketing).
  - CDC’s the Health Communicator’s Social Media Toolkit: [www.cdc.gov/socialmedia/tools/guidelines/pdf/socialmediatoolkit\\_bm.pdf](https://www.cdc.gov/socialmedia/tools/guidelines/pdf/socialmediatoolkit_bm.pdf)

## Project VCTR: Vaccine Communication Tracking and Response

Website: [projectvctr.com/](http://projectvctr.com/)

- 13 Best Practices in Vaccine Communication  
[drive.google.com/file/d/1IVEgTUVYr6UfGUD01IKqEDNGE460Extn/view?usp=sharing](https://drive.google.com/file/d/1IVEgTUVYr6UfGUD01IKqEDNGE460Extn/view?usp=sharing)
- Using Social Media Influencers to Deliver Positive Information About the Flu Vaccine: Findings from a Multi-Year Qualitative Study [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3697432](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3697432)
- Using social media influencers to increase knowledge and positive attitudes toward the flu vaccine  
[journals.plos.org/plosone/article?id=10.1371/journal.pone.0240828](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0240828)
- Content Themes and Influential Voices Within Vaccine Opposition on Twitter, 2019  
[ajph.aphapublications.org/doi/full/10.2105/AJPH.2020.305901](https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2020.305901)

- 
- <sup>15</sup> Wardle, C., Derakhshan, H. (2018, August). Information Disorder: Toward an interdisciplinary framework for research and policy making. Council of Europe, 2nd revised edition. <https://rm.coe.int/information-disorder-report-version-august-2018/16808c9c77>
- <sup>16</sup> Shu C., Schieber, J. (2020). Facebook, Reddit, Google, LinkedIn, Microsoft, Twitter and YouTube issue joint statement on misinformation. TechCrunch. <https://techcrunch.com/2020/03/16/facebook-reddit-google-linkedin-microsoft-twitter-and-youtube-issue-joint-statement-on-misinformation/>
- <sup>17</sup> Brodwin, E. (2020, September 21). How Pinterest beat back vaccine misinformation — and what Facebook could learn from its approach. STAT. <https://www.statnews.com/2020/09/21/pinterest-facebook-vaccine-misinformation/>
- <sup>18</sup> Chou, W.S., Gaysynsky, A. (2020). A Prologue to the Special Issue: Health Misinformation on Social Media. American Journal of Public Health, 110, S270-S272, <https://doi.org/10.2105/AJPH.2020.305943>
- <sup>19</sup> Guidry, J.P.D., Vraga, E.K., Laestadius, L.I., Miller, C.A., Occa, A., Nan, X., Ming, H.M., Qin, Y., Fuemmeler, B.F., Carlyle, K.E. (2020, October). HPV Vaccine Searches on Pinterest: Before and After Pinterest's Actions to Moderate Content. Am J Public Health, 110(S3), S305-S311. doi: 10.2105/AJPH.2020.305827
- <sup>20</sup> Chou, W.S., Gaysynsky, A., Cappella, J.N. (2020). Where We Go From Here: Health Misinformation on Social Media. American Journal of Public Health, 110, S273-S275, <https://doi.org/10.2105/AJPH.2020.305905>.
- <sup>21</sup> Limaye, R.J., Sauer, M., Ali, J., Bernstein, J., Wahl, B., Barnhill, A., Labrique, A. (2020). Building trust while influencing online COVID-19 content in the social media world. The Lancet Digital Health, 2(6), 277-278. [https://www.thelancet.com/journals/landig/article/PIIS2589-7500\(20\)30084-4/fulltext](https://www.thelancet.com/journals/landig/article/PIIS2589-7500(20)30084-4/fulltext)
- <sup>22</sup> Swire-Thompson, B., Eckle, U. (2018). Misinformation and its Correction: Cognitive Mechanisms and Recommendations for Mass Communication.
- <sup>23</sup> Vanderpool, R.C., Gaysynsky, A., Sylvia, Chou, W.Y. (2020, October). Using a Global Pandemic as a Teachable Moment to Promote Vaccine Literacy and Build Resilience to Misinformation. Am J Public Health, 110(S3), S284-S285. doi: 10.2105/AJPH.2020.305906.
- <sup>24</sup> French, J., Deshpande, S., Evans, W., Obregon, R. (2020). Key Guidelines in Developing a Pre-Emptive COVID-19 Vaccination Uptake Promotion Strategy. Int. J. Environ. Res. Public Health, 17, 5893. <https://www.mdpi.com/1660-4601/17/16/5893/htm>
- <sup>25</sup> Stecula, D.A., Kuru, O., Jamieson, K.H. (2020, January 1). How Trust in Experts and Media Use Affect Acceptance of Common Anti-Vaccination Claims. The Harvard Kennedy School Misinformation Review, Volume 1, Issue 1, Attribution 4.0 International (CC BY 4.0) DOI: <https://misinforeview.hks.harvard.edu/article/users-of-social-media-more-likely-to-be-misinformed-about-vaccines>
- <sup>26</sup> Rodgers, K. Massac, N. (2020, May/June). Misinformation: A Threat to the Public's Health and the Public Health System, Journal of Public Health Management and Practice, Volume 26, Issue 3, 294-296. doi: 10.1097/PHH.0000000000001163
- <sup>27</sup> Donovan, J. (2020, October). Concrete Recommendations for Cutting Through Misinformation During the COVID-19 Pandemic. Am J Public Health, 110(S3), S286-S287. doi: 10.2105/AJPH.2020.305922.
- <sup>28</sup> Steffens, M.S., Dunn, A.G., Wiley, K.E., Leask, J. (2019). How organizations promoting vaccination respond to misinformation on social media: a qualitative investigation. BMC Public Health, 19, 1348. <https://doi.org/10.1186/s12889-019-7659-3>. <https://bmcpubhealth.biomedcentral.com/articles/10.1186/s12889-019-7659-3>
- <sup>29</sup> MacDonald, N., Butler, R., & Dubé, E. (2018). Addressing barriers to vaccine acceptance: an overview, Human Vaccines & Immunotherapeutics, 14:1, 218-224, DOI: 10.1080/21645515.2017.1394533. <https://www.tandfonline.com/doi/full/10.1080/21645515.2017.1394533>
- <sup>30</sup> Oren, E., Martinez, L., Hensley, R.E., Jain, P., Ahmed, T., Purnajo, I., Nara, A., Tsou, M.H. (2020, October). Twitter Communication During an Outbreak of Hepatitis A in San Diego, 2016-2018. Am J Public Health, 110(S3), S348-S355. doi: 10.2105/AJPH.2020.305900.
- <sup>31</sup> Igoe, K. (2020, April 3). Developing Public Health Communication Strategies—And Combating Misinformation—During COVID-19. <https://www.hsph.harvard.edu/ecpe/public-health-communication-strategies-covid-19/>
- <sup>32</sup> Pazzanese, C. (2020, May 8). Battling the 'pandemic of misinformation'. Harvard Gazette. <https://news.harvard.edu/gazette/story/2020/05/social-media-used-to-spread-create-covid-19-falsehoods/>
- <sup>33</sup> Scherer, L.D., Pennycook, G. (2020, October). Who Is Susceptible to Online Health Misinformation? Am J Public Health, 110(S3), S276-S277. doi: 10.2105/AJPH.2020.305908.
- <sup>34</sup> Rossen, et al. (2019). Accepters, Fence Sitters, or Rejectors: Moral profiles of vaccination attitudes. Social Science & Med, 224: 23-27.
- <sup>35</sup> Swire-Thompson, B., DeGutis, J., Lazer, D. (2020, September). Searching for the Backfire Effect: Measurement and Design Considerations. Journal of Applied Research in Memory and Cognition, 9(3), 286-299. doi.org/10.1016/j.jarmac.2020.06.006.

- <sup>36</sup> Hoffman, B.L., Felter, E.M., Chu, K.H., Shensa, A., Hermann, C., Wolynn, T., Williams, D., Primack, B.A. (2019). It's not all about autism: The emerging landscape of anti-vaccination sentiment on Facebook. *Vaccine*, 37(16) ,2216–2223. <https://doi.org/10.1016/j.vaccine.2019.03.003>. <https://www.sciencedirect.com/science/article/pii/S0264410X19303032?via%3Dihub>
- <sup>37</sup> Dunn, A.G., Surian, D., Dalmazzo, J., Rezazadegan, D., Steffens, M., Dyda, A., Leask, J., Coiera, E., Dey, A., Mandl, K.D. (2020, October). Limited Role of Bots in Spreading Vaccine-Critical Information Among Active Twitter Users in the United States: 2017–2019. *Am J Public Health*, 110(S3), S319–S325. doi: 10.2105/AJPH.2020.305902.
- <sup>38</sup> Wang, Y., McKee, M., Torbica, A., Stuckler, D. (2019, September 18). Systematic Literature Review on the Spread of Health-related Misinformation on Social Media. *Soc Sci Med*, 240:112552. doi: 10.1016/j.socscimed.2019.112552.
- <sup>39</sup> Mendel-Van Alstyne, J., Nowak, GJ., Aikin, A.L. (2018). What is "confidence" and what could affect it?: A qualitative study of mothers who are hesitant about vaccines. *Vaccine*, 36 (44), 6464–6472.
- <sup>40</sup> Dubé E., et al. (2020). Optimizing Communication Material to Address Vaccine Hesitancy. *Canada Communicable Disease Report*, 46 (2-3), 48–52.
- <sup>41</sup> Vraga, E.K., Bode, L. (2020,October). Correction as a Solution for Health Misinformation on Social Media. *Am J Public Health*, 110(S3), S278–S280. doi: 10.2105/AJPH.2020.305916.
- <sup>42</sup> Pluviano, S., Watt, C., Della, Sala, S. (2017). Misinformation lingers in memory: Failure of three provaccination strategies. *PloS one*, 12(7).
- <sup>43</sup> Walter, N., Murphy, ST. (2018). How to unring the bell: A meta-analytic approach to correction of misinformation. *Communication Monographs*, 85(3), 423–441.
- <sup>44</sup> Wardle, C., Derakhshan, H. (2018, August). Information Disorder: Toward an interdisciplinary framework for research and policy making. Council of Europe, 2nd revised edition. <https://rm.coe.int/information-disorder-report-version-august-2018/16808c9c77>
- <sup>45</sup> Cook, J., Lewandowsky, S., Ecker, U.K.H. (2017). Neutralizing misinformation through inoculation: Exposing misleading argumentation techniques reduces their influence. *PLOS ONE*, 12(5). <https://doi.org/10.1371/journal.pone.0175799>
- <sup>46</sup> Broniatowski DA, Jamison AM, Qi S, et al. (2018). Weaponized Health Communication: Twitter Bots and Russian Trolls Amplify the Vaccine Debate. *Am J Public Health*, 108(10) ,1378–1384. doi:10.2105/AJPH.2018.304567. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6137759/pdf/AJPH.2018.304567.pdf>
- <sup>47</sup> Bonnevie, E., Goldbarg, J., Gallegos-Jeffrey, A.K., Rosenberg, S.D., Wartella, E., Smyser J. (2020, October). Content Themes and Influential Voices Within Vaccine Opposition on Twitter, 2019. *Am J Public Health*, 110(S3), S326–S330. doi: 10.2105/AJPH.2020.305901.
- <sup>48</sup> Jamison, A., Broniatowski, D.A., Smith, M.C., Parikh, K.S., Malik, A., Dredze, M., Quinn, S.C. (2020, October). Adapting and Extending a Typology to Identify Vaccine Misinformation on Twitter. *Am J Public Health*, 110(S3), S331–S339. doi: 10.2105/AJPH.2020.305940.
- <sup>49</sup> Broniatowski, D.A., Jamison, A.M., Johnson, N.F., Velasquez, N., Leahy, R., Restrepo, N.J., Dredze, M., Quinn, S.C. (2020, October). Facebook Pages, the "Disneyland" Measles Outbreak, and Promotion of Vaccine Refusal as a Civil Right, 2009–2019. *Am J Public Health*. 110(S3):S312–S318. doi: 10.2105/AJPH.2020.305869.







Association of  
Immunization  
Managers

Tel: (301) 424-6080 | Fax: (301) 424-6081  
[info@immunizationmanagers.org](mailto:info@immunizationmanagers.org)

[www.immunizationmanagers.org](http://www.immunizationmanagers.org)