CDC's Vaccine Safety Communications

Daniel B. Jernigan, MD, MPH
Director, National Center of Emerging Zoonotic and Infectious Diseases
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Outline

- CDC’s vaccine safety communications
- Communicating vaccine safety during the COVID-19 Public Health Emergency
- Lessons learned

Overview of CDC Vaccine Safety Communications

Vaccine Safety Communications

- **Objective:**
  - To provide clear, consistent, and evidence-based information about the safety of post authorization and post licensure vaccines to **educate all audiences** and **build trust** in vaccine safety programs and systems in the United States.

- By using **established communication principles** to deliver accurate, credible, and timely vaccine safety communication.

Vaccine Safety Communications Efforts

- **Vaccine safety communication efforts are deliberate approaches designed to effectively share accurate, evidence-based information about vaccine safety while addressing concerns and building trust. This includes**
  - Transparency
  - Proactive engagement
  - Audience-specific messages
  - Collaboration with trusted messengers
  - Consistent messaging that aligns with risk communication research and best practices
  - Combatting misinformation

Vaccine Safety at CDC

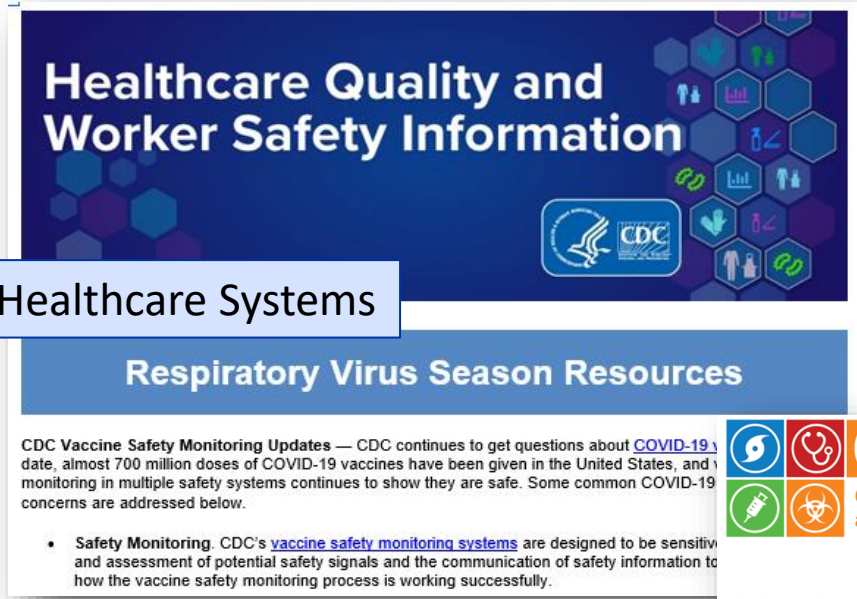
- **Located within the Division of Healthcare Quality Promotion in the National Center for Zoonotic and Emerging Infectious Diseases**
  - Immunization Safety Office (ISO)
    - 50 FTEs
    - 33 Contractors
  - ISO Health communications team
    - 2 FTEs
    - 5 Contractors

Vaccine Safety | Vaccine Safety | CDC

Vaccine Safety Communication at CDC is Cross-Cutting

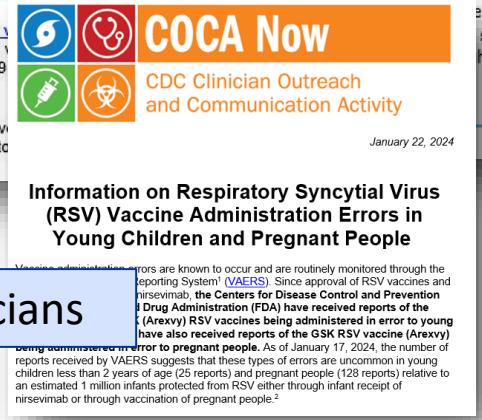
- Vaccine Information Statement (VIS)
- Vaccine guidance for healthcare providers
- Responses to public inquiries
- Advisory Committees (e.g. ,ACIP)
- Emergency response
- Travelers' vaccine guidance
- Global healthcare provider & partner training
- Support to state and local health departments
- Immigrant and refugee health guidance
- Domestic healthcare provider & partner training
- Resources for specific populations (e.g., older adults)

Vaccine Safety Communication with Partners



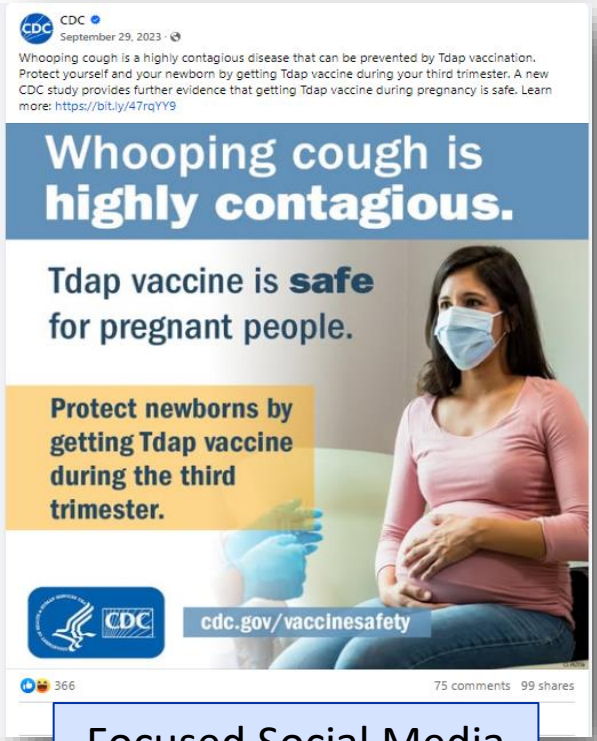
Healthcare Systems

Immunization Implementation Partners

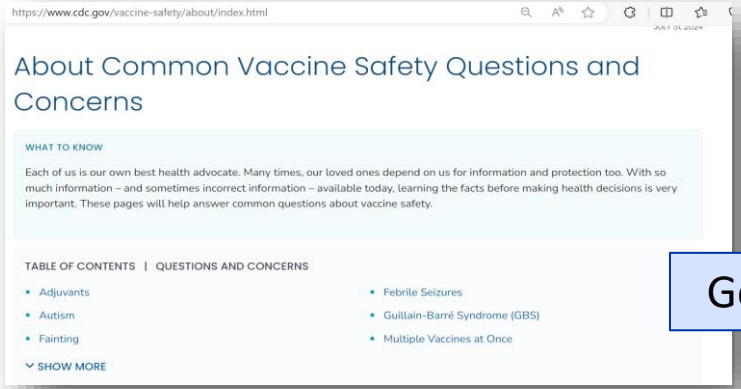


Clinicians

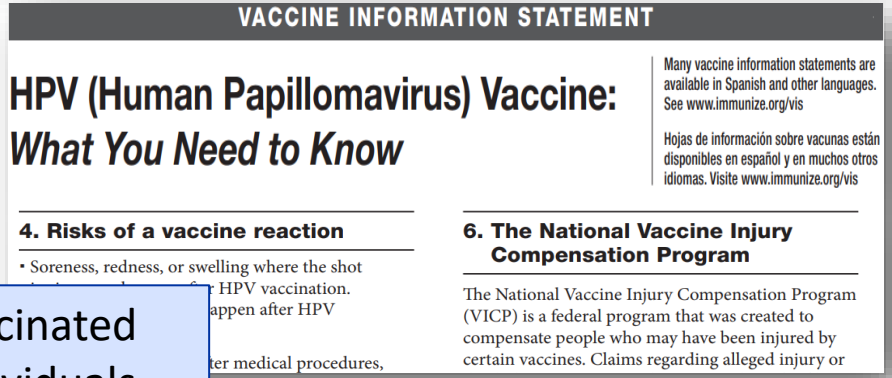
Vaccine Safety Communication with the Public



Focused Social Media



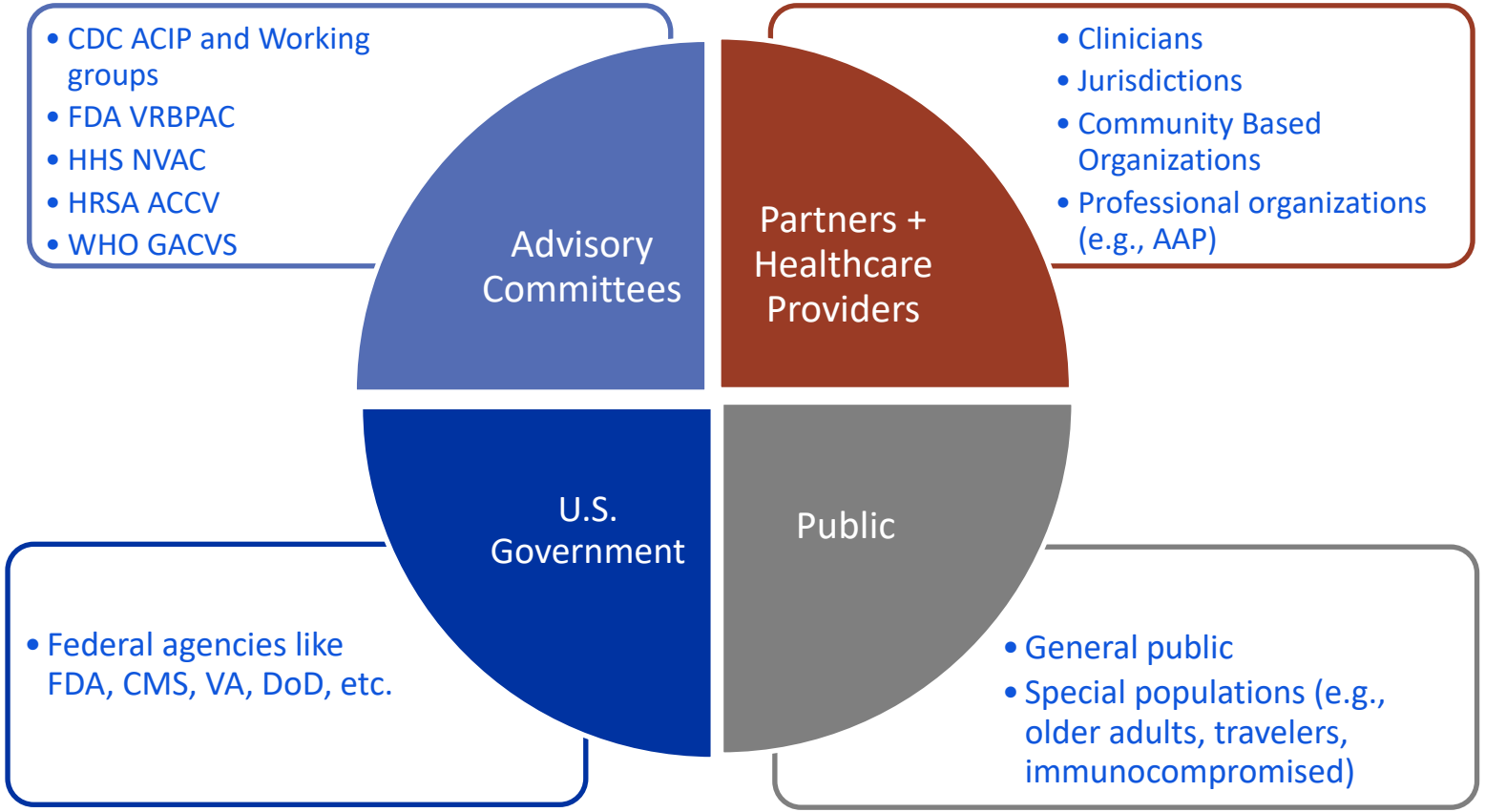
General Public



Vaccinated Individuals

Key Vaccine Safety Interagency Partners

Communicating Vaccine Safety: Key Audiences



ACIP- Advisory on Immunization Practices; VRBPAC-Vaccines and Related Biological Products Advisory Committee; NVAC- National Vaccine Advisory Committee; HRSA ACCV- Health Resources and Services Administration Advisory Commission on Childhood Vaccines; WHO GACVS= World Health Organization Global Advisory Committee on Vaccine Safety

Communication from CDC on Vaccine Safety Information to Various Audiences

Federal Agencies

- Near daily contact about safety issues
- Formal briefings

Advisory Committees

- Work group meetings
- Presentations

Partners (including healthcare providers)

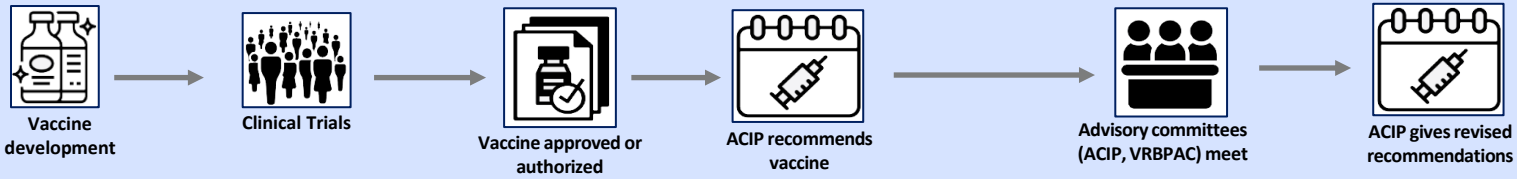
- Partner newsletters
- Dear Provider letters
- COCA calls
- HCP-focused outlets (e.g., Medscape)
- Trainings
- Website
- Guidance/Interim Clinical Considerations/Recommendations

Public

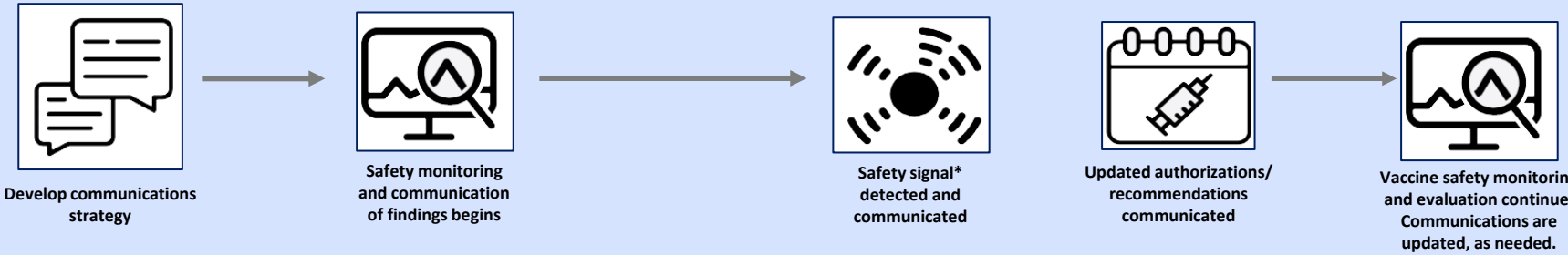
- Website
- Vaccine Information Sheet (VIS)
- Social media
- Messages for specific populations (e.g., pregnancy)
- Videos
- Print materials
- Through traditional media

Overview of Vaccine Safety Communication Activities

Vaccine Timeline



Vaccine Safety Communications Activities



*Signal: a statistical association found in vaccine safety monitoring; it does not mean there is a true association and requires investigation and evaluation.

When a Vaccine Safety Signal is Identified: General Communication Process

SIGNAL IDENTIFICATION

Signal identified

Discuss with other federal agencies, review other sources of data

INTERNAL COMMUNICATION

Notify Division, Center, and CDC leadership + ACIP vaccine WG leads

ACIP WG presentation to get feedback, additional perspectives

COMMUNICATING FINDING EXTERNALLY

ACIP presentation

Communication materials developed:

- Webpages
- Social Media
- Partner letters/calls
- Update to clinical considerations guidance

SIGNAL EVALUTION

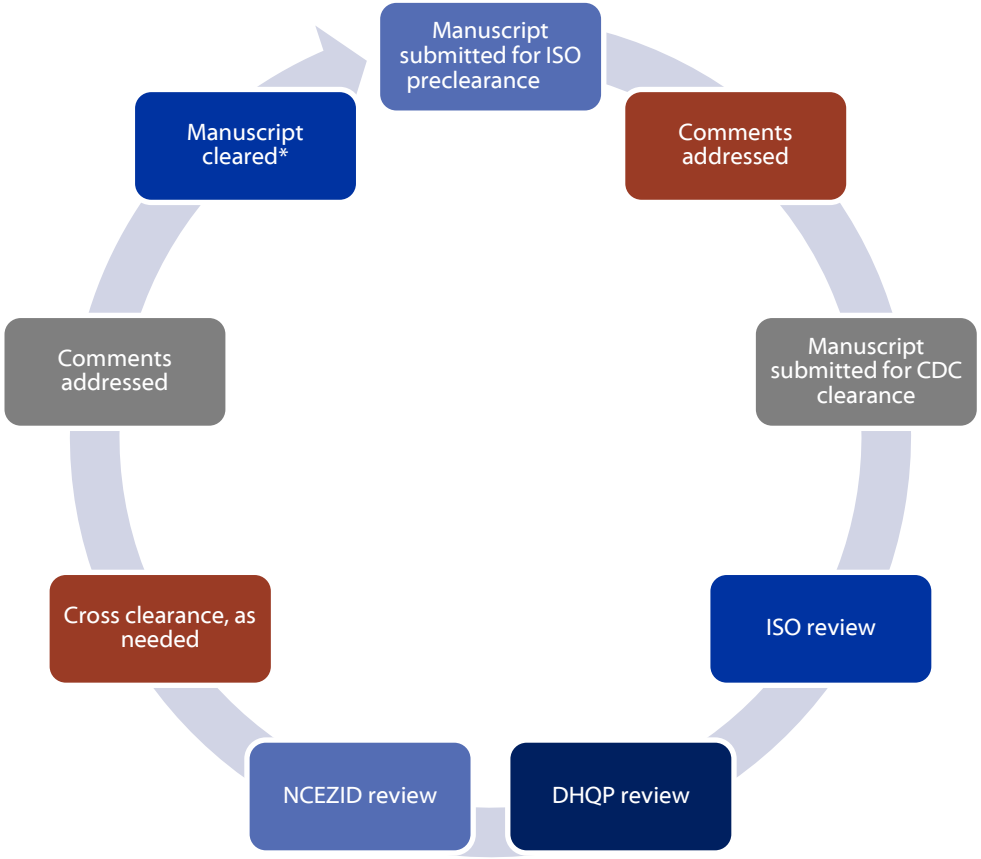
Signal evaluation

Communication updated as new information becomes available + scientific findings are published

During this process, we continue to investigate and evaluate the signal

Clearance Process for Manuscripts

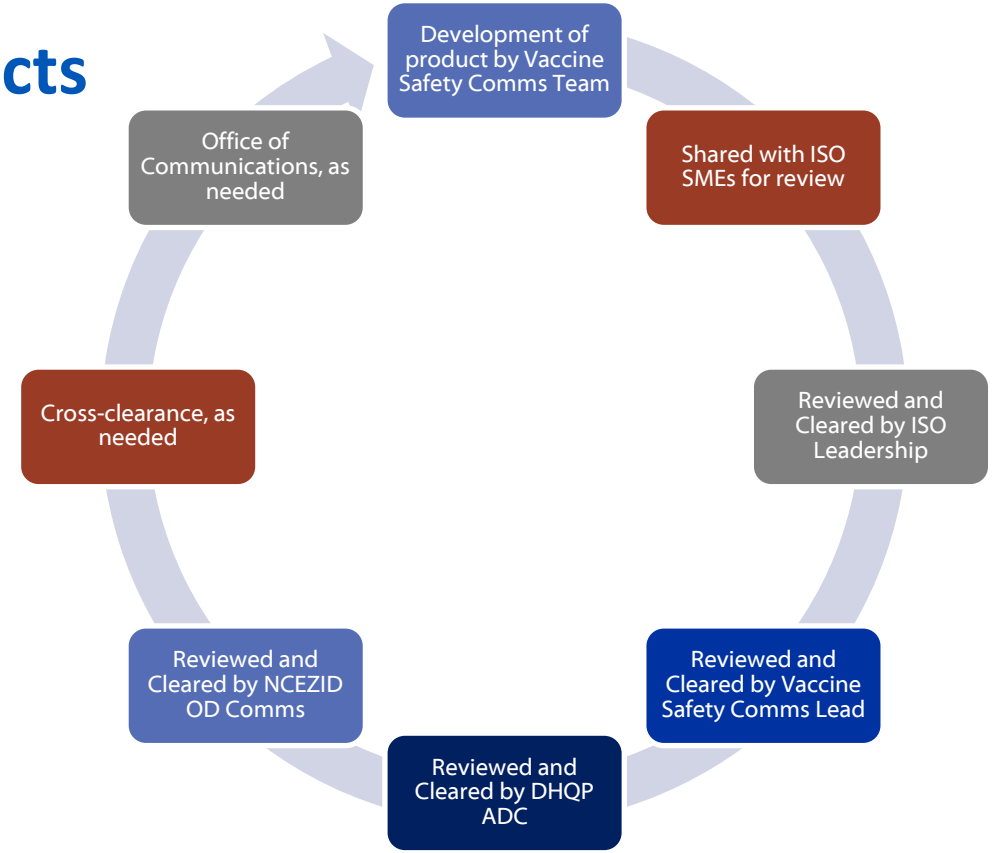
- **Clearance is required for all documents where CDC is engaged**
- **Level of clearance needed depends if CDC co-authors are included**
- **Average length in clearance: 4-6 weeks**
  - Urgent reports (e.g., MMWRs) can be expedited



MMWR: Morbidity and Mortality Weekly Report; MMWR has additional clearance with CDC leadership

Clearance Process for Communications Products

- All products developed are reviewed and cleared
- Development of products with SMEs is an iterative process
- Level of clearance within CDC depends on the product



SME- Subject Matter Expert; ADC: Associate Director of Communications

Vaccine Safety Communications during the COVID-19 Public Health Emergency

COVID-19 Vaccine Safety Team

CDC's COVID-19 Vaccine Safety Team and COVID-19 Vaccine Communication Team were part of the COVID-19 Vaccine Task Force, which also handled vaccine distribution, pharmacy and long-term care logistics, jurisdictional support, and more.

COVID-19 Vaccine Safety Team (VST)

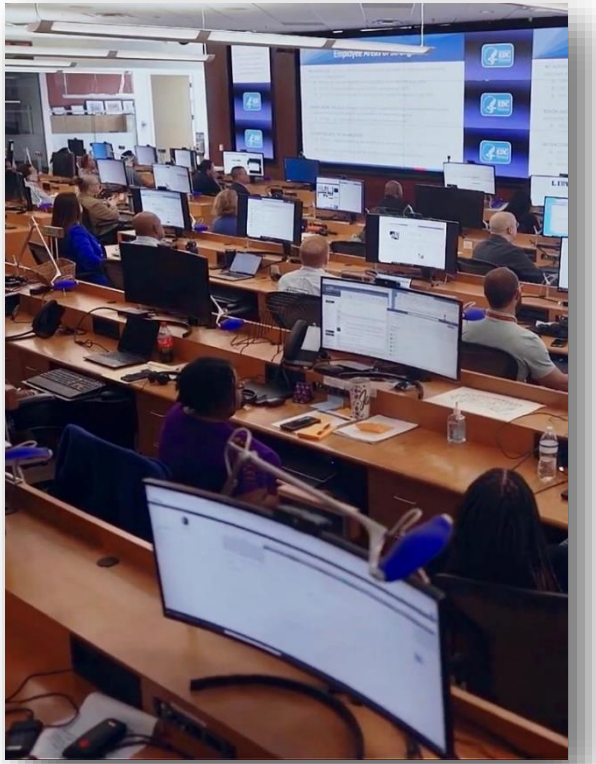
- ISO staff deployed to this team
- Relied on rotating deployers
  - > 200 deployers to the VST during the Response
  - Typically 6-8 week deployments
- Spring 2022: Response activities transition to program (ISO)

COVID-19 Vaccine Communications Team

- Worked closely with COVID-19 Vaccine Safety Team on vaccine-related communications
- October 2020- Spring 2022: Deployment of health communication specialists within CDC
- Team size varied from 2-10 deployers
  - Typically 4-8 week deployments
- Summer 2021: Permanent FTE and DHQP contracted staff dedicated vaccine safety communications

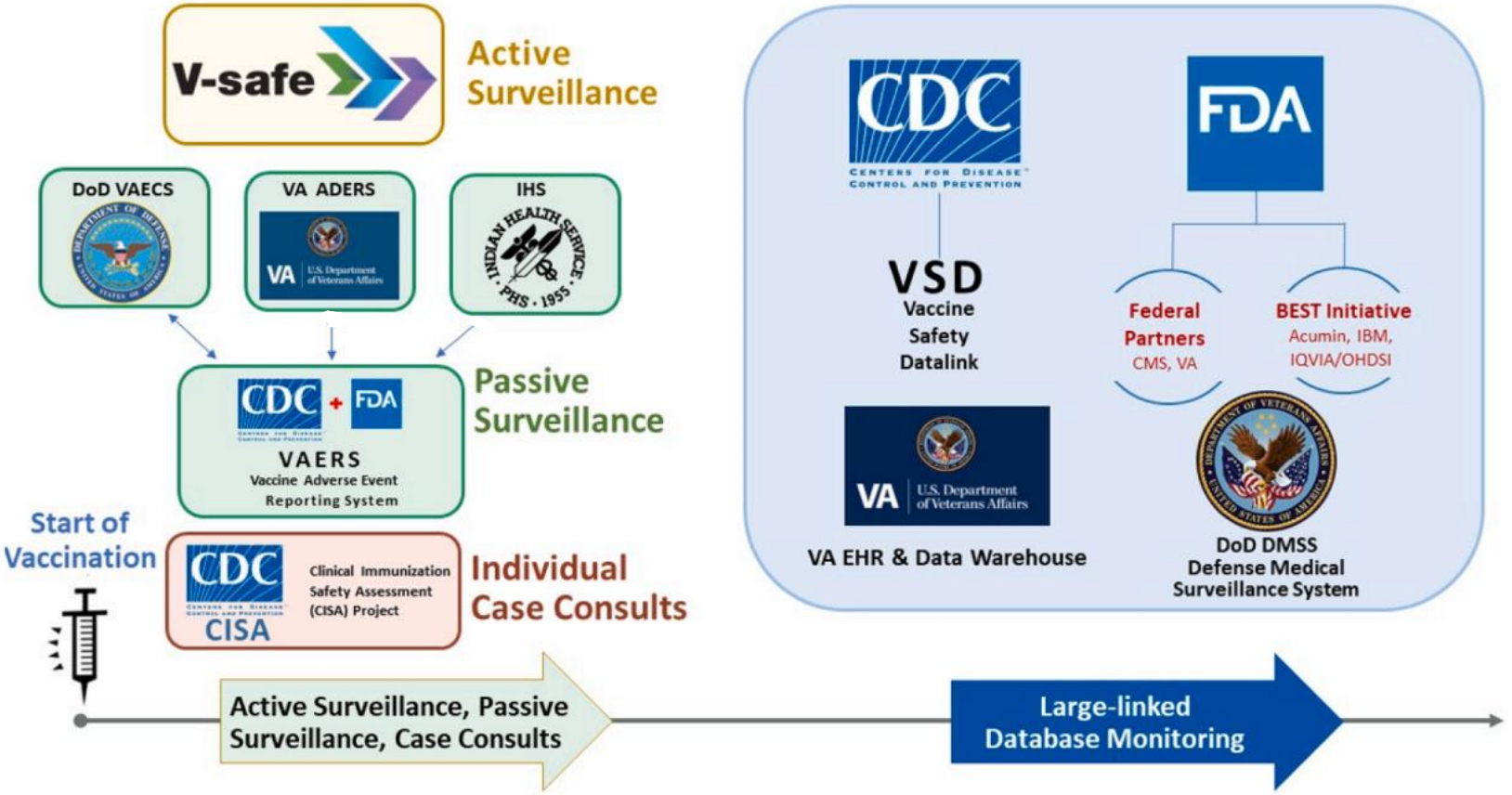
CDC Joint Information Center (JIC)

- Central point of information coordination and emergency risk communication during major CDC responses
- Key functions:
  - Centralize response communications
  - Develop response communications strategy
  - Staffing
  - Engage with clinician and non-clinician partners
  - Response clearance
  - Research and evaluation



https://blogs.cdc.gov/publichealthmatters/2011/03/the-jic-never-sleeps/

COVID-19 Vaccine Safety Monitoring Plan and Timeline



Development and Communication of a Vaccine Safety Monitoring Plan

- **Interagency vaccine safety monitoring was coordinated with partners**
  - Developing a common core list of Adverse Events of Special Interest for monitoring
  - Sharing information on safety monitoring plans, including methods
- **Updates on the vaccine safety monitoring plan given to HHS/CDC leadership and Advisory Committees**
  - Regular updates to ACIP Vaccine Safety Technical (VaST) Work Group
- **COVID-19 vaccine safety webpages were kept updated**
  - Description of federal safety monitoring systems and general vaccine monitoring activities
  - Posting of COVID-19 vaccine safety SOPs and protocols

Gee J, et al. Overview of U.S. COVID-19 vaccine safety surveillance systems. Vaccine. 2024 Sep 17;42 Suppl 3:125748.

Preparing for the National COVID-19 Vaccination Program

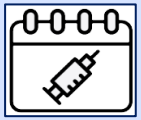
Vaccine Timeline

Vaccine development

May 2020: OWS Announced

Clinical Trials + Results

December 2020: Vaccines authorized



December 2020: ACIP recommends vaccine

2021-2023: Advisory committees (ACIP, VRBPAC) meet revise recs

Vaccine Safety Communications Activities

Summer 2020: Develop communications strategy

Identify key:
- Audiences
- Messages, tactics, & channels
- Timeline
- Trusted messengers

December 2020: Safety monitoring and communication of findings begins

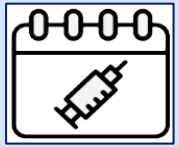
Internal communications**
- Coordination within CDC and with other federal agencies

External communications**
- Website content
- MMWRs/manuscripts
- Clinical guidance
- Webinars
- Social media
- Newsletters

January 2021: First safety signal* detected and communicated

Internal communications**
- CDC leadership and programs
- Interagency partners
- Other countries

External communications**
- Presentations to committees
- Media statements
- Website updates
- Digital media
- Partner communications



Updated authorizations/ recommendations communicated

External communications**
- MMWR policy statements
- Updated clinical guidance
- Patient education materials
- COCA calls
- Podcasts
- Social media

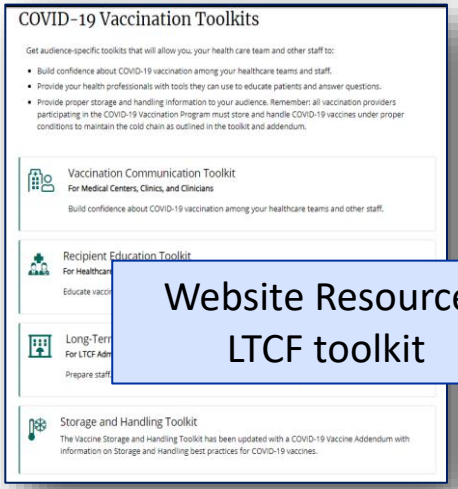
Vaccine safety monitoring and evaluation continue. Communications updated, as needed.

*Signal: a statistical association found in vaccine safety monitoring; it does not mean there is a true association and requires investigation and evaluation; **Internal – within the U.S. Government; External– public facing communications

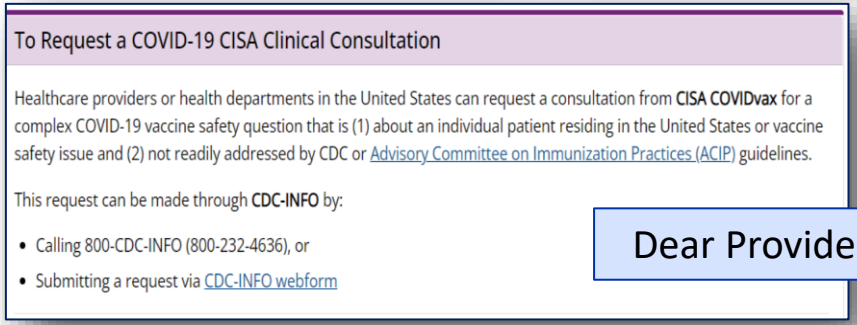
Education and Communication on U.S. COVID-19 Vaccine Safety Systems

Roadshow for V-Safe

Public Outreach



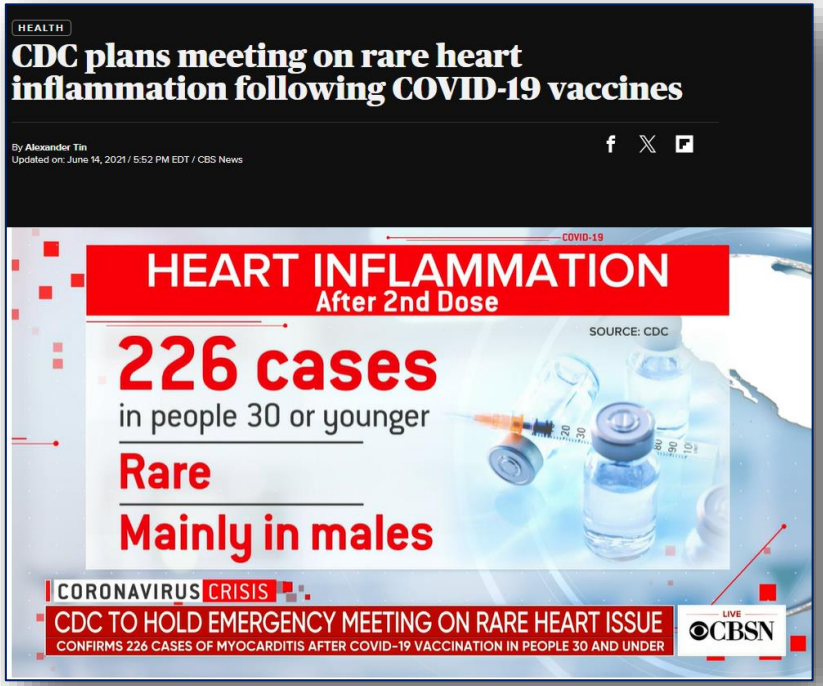
Website Resources
LTCF toolkit



Dear Provider Letter

Continuous Updates to CDC's ACIP

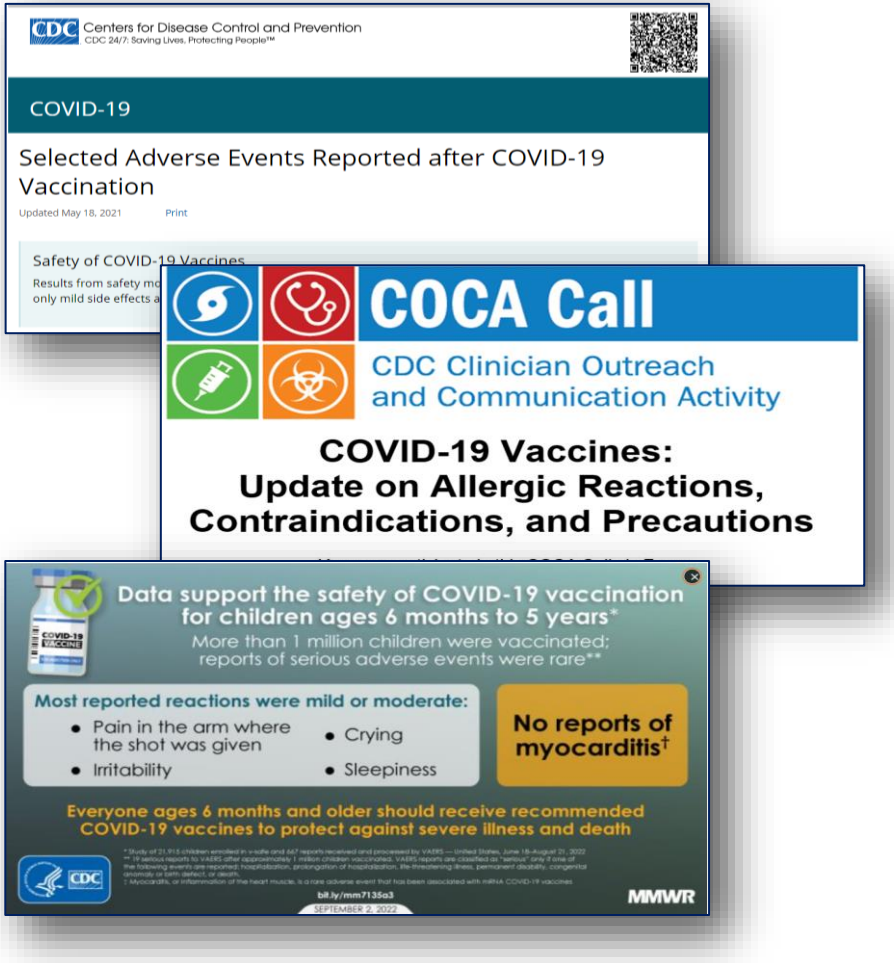
- **Between December 2020-May 2023:**
  - 27 ACIP meetings on COVID-19 vaccines
    - 17 VaST assessments
    - 18 COVID-19 vaccine safety presentations from CDC systems
- **Associated communication activities**
  - Internal briefing documents
  - Media interviews
  - Prepared responses for CDC Info
  - Webpage updates
  - Interim clinical consideration updates
  - Social media posts
  - Communications with partners



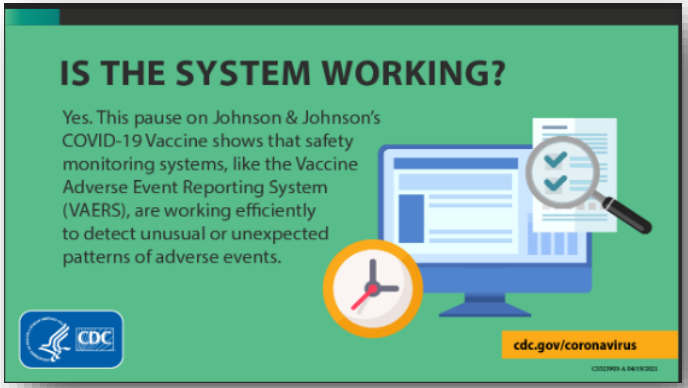
ACIP: Advisory Committee on Immunization Practices

Vaccine Safety Monitoring Findings

- **Public presentations**
- **106 Publications**
  - Including 28 MMWRs
- **Each presentation and publication had a communications plan**
  - Key messages, planned outreach, media statement
- **Website updates**
  - Select Adverse Events Reported after COVID-19 Vaccination detailed adverse events like anaphylaxis, TTS, etc.



Promotion of Vaccine Safety Monitoring Systems



Experience with Thrombosis with Thrombocytopenia Syndrome (TTS) after Janssen COVID-19 Vaccine

2/27/21: FDA EUA
2/28/21: ACIP recommendation for 18yrs+

4/13/21:
-CDC and FDA recommended a pause of Janssen COVID-19 vaccine
- HAN alert

4/30/21:
- TTS case series published in JAMA
- MMWR on safety of Janssen vaccine

10/21/21: ACIP: Interim clinical considerations for Janssen COVID-19 booster doses includes risks of TTS and GBS

1/18/22: case series providing detailed clinical characterization of TTS published in *Annals of Internal Medicine*

6 cases TTS reported to VAERS CDC

4/14/21
Emergency ACIP meeting

4/23/21
Emergency ACIP meeting;
-Pause lifted and Janssen COVID-19 recommendation resumed

4/27/21: MMWR Updated ACIP recommendations; COCA call

5/12/21: TTS update to ACIP

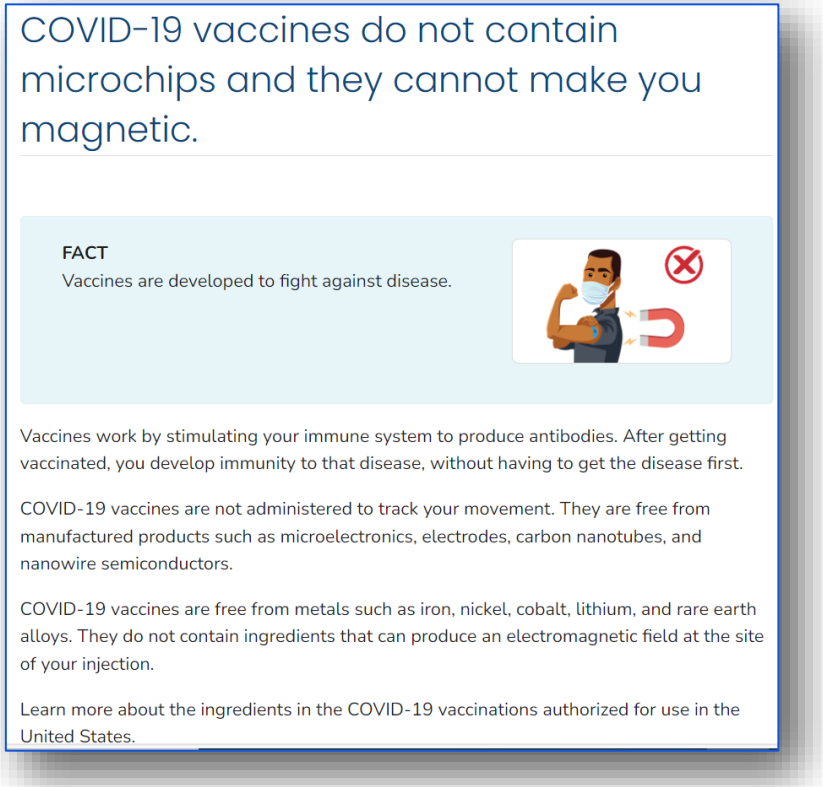
12/16/21: ACIP recommends mRNA COVID-19 over Janssen COVID-19 vaccine
12/17/21: COCA call

1/21/22: MMWR on updated interim ACIP recommendations by ACIP on use of Janssen COVID-19 vaccine

Communication to healthcare professionals and the public was critical

Addressing Myths and Facts about COVID-19 Vaccines

- **Social listening conducted that informed CDC about vaccine safety concerns**
  - COVID-19 State of Vaccine Confidence Report
    - Posted on CDC's website
- **Dedicated CDC webpage for COVID-19 myths and facts**



COVID-19 vaccines do not contain microchips and they cannot make you magnetic.

FACT

Vaccines are developed to fight against disease.

Vaccines work by stimulating your immune system to produce antibodies. After getting vaccinated, you develop immunity to that disease, without having to get the disease first.

COVID-19 vaccines are not administered to track your movement. They are free from manufactured products such as microelectronics, electrodes, carbon nanotubes, and nanowire semiconductors.

COVID-19 vaccines are free from metals such as iron, nickel, cobalt, lithium, and rare earth alloys. They do not contain ingredients that can produce an electromagnetic field at the site of your injection.

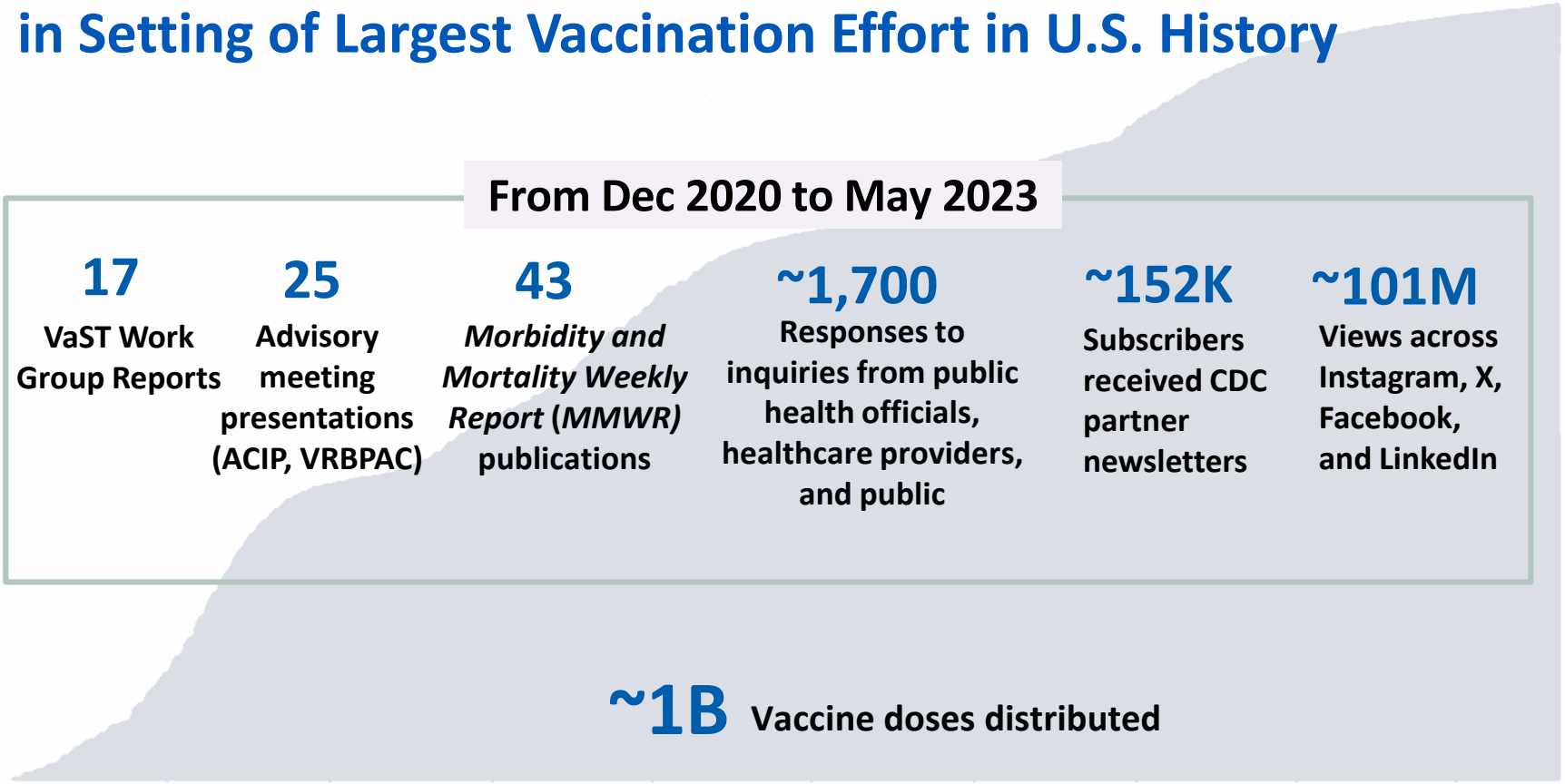
Learn more about the ingredients in the COVID-19 vaccinations authorized for use in the United States.

Myths & Facts About COVID-19 Vaccines | COVID-19 | CDC

Vaccine Safety: Getting Out the Message

- **CDC's website**
- **Social media**
  - General audiences: Instagram, Facebook, X (formerly Twitter)
  - Healthcare professional audiences: LinkedIn
- **Healthcare provider outlets like Medscape and Doximity**
- **Partner calls and webinars**
- **Podcasts**
- **Videos**

Rapid Dissemination of COVID-19 Vaccine Safety Information in Setting of Largest Vaccination Effort in U.S. History



From Dec 2020 to May 2023

17 VaST Work Group Reports

25 Advisory meeting presentations (ACIP, VRBPAC)

43 *Morbidity and Mortality Weekly Report* (*MMWR*) publications

~1,700 Responses to inquiries from public health officials, healthcare providers, and public

~152K Subscribers received CDC partner newsletters

~101M Views across Instagram, X, Facebook, and LinkedIn

~1B Vaccine doses distributed

Lessons Learned from COVID-19 Public Health Emergency

Lessons Learned

- **Importance of risk communication**
  - Growing hesitancy, decreased confidence, and rumors emphasized the need to have clear, transparent, and timely vaccine safety messaging
  - Using new and non-traditional trusted messengers to relay vaccine safety information
  - Need to have a multi-pronged approach to sharing vaccine safety information
    - No one-size-fits-all approach
    - Vaccine safety concerns differ among populations
- **Vaccine safety communications requires specialized understanding**
  - Timely recruitment and hiring is essential
- **Communication research is important to inform messaging**

Current Communications Projects: Informing Future Vaccine Safety Messaging

- **Aiming to understand our audiences better:**
  - Knowledge and understanding of vaccine safety monitoring systems
  - Perceptions of safety: vaccines compared to other health-related products
  - Assessments of vaccine safety discussions between patient and provider
  - Identification of new dissemination channels for vaccine safety messaging and materials to reach targeted populations

- **Expected outcomes:**
  - Refine vaccine safety messages
  - Optimize other types of communications on vaccine safety

Recent Research Suggest More Nuanced Communication is Needed

- **Skepticism Towards Vaccines**: Unvaccinated adults largely doubt the health benefits of COVID-19 vaccines, fearing medium to high risks of side effects (Pew Communications Research, May 2023).
- **Critical Perceptions**: Vaccine-hesitant individuals reject absolute terms like "best" and "safest," and view vaccination calls-to-action as guilt-inducing (Johns Hopkins, May 2023).
- **Communication Challenges**: Phrases like “trust the science” alienate those skeptical of scientific authority; emphasis on evolving knowledge may enhance receptivity (CDCF contracted research, January 2024).

Results of Recent CDC Vaccine Safety Focus Groups with Current and Expecting Parents

- Respondents are **sensitive to ambiguous language** in vaccine communications, often dissecting claims and questioning their credibility. Language that lacks specificity, such as "routinely" or "generally," can provoke skepticism, especially among those who are already hesitant about vaccines.
  - There is considerable resistance to blanket, absolute statements like “safe and effective”. Messaging that acknowledges the complexities of vaccines resonates more.
- **Clear and definitive language like "transparent", "long-lasting" and "long-standing" is viewed positively** by respondents. These terms are seen as providing detailed information and instilling confidence in the vaccine monitoring process.
- **References to "talk to your healthcare provider" are often dismissed by vaccine-hesitant respondents**, who express skepticism about the advice of healthcare professionals.

Communicating Vaccine Safety

- **Vaccines are the best protection** we have against infectious diseases.
- **The benefits of vaccines far outweigh the risks.** As science continues to advance, we strive to develop safer vaccines and improve delivery to protect ourselves against disease more effectively.
- **COVID-19 vaccines are the best way to protect your child from severe illness**.
- Hundreds of millions of people in the U.S. have **safely received COVID-19 vaccines.** COVID-19 vaccines are closely monitored by multiple U.S. vaccine safety systems.
- **Rotavirus vaccines safely protect children** from severe watery diarrhea, vomiting and hospitalizations.
- Did you know? The United States' long-standing **vaccine safety systems ensure that the benefits of vaccination far outweigh the risks**.

Conclusion

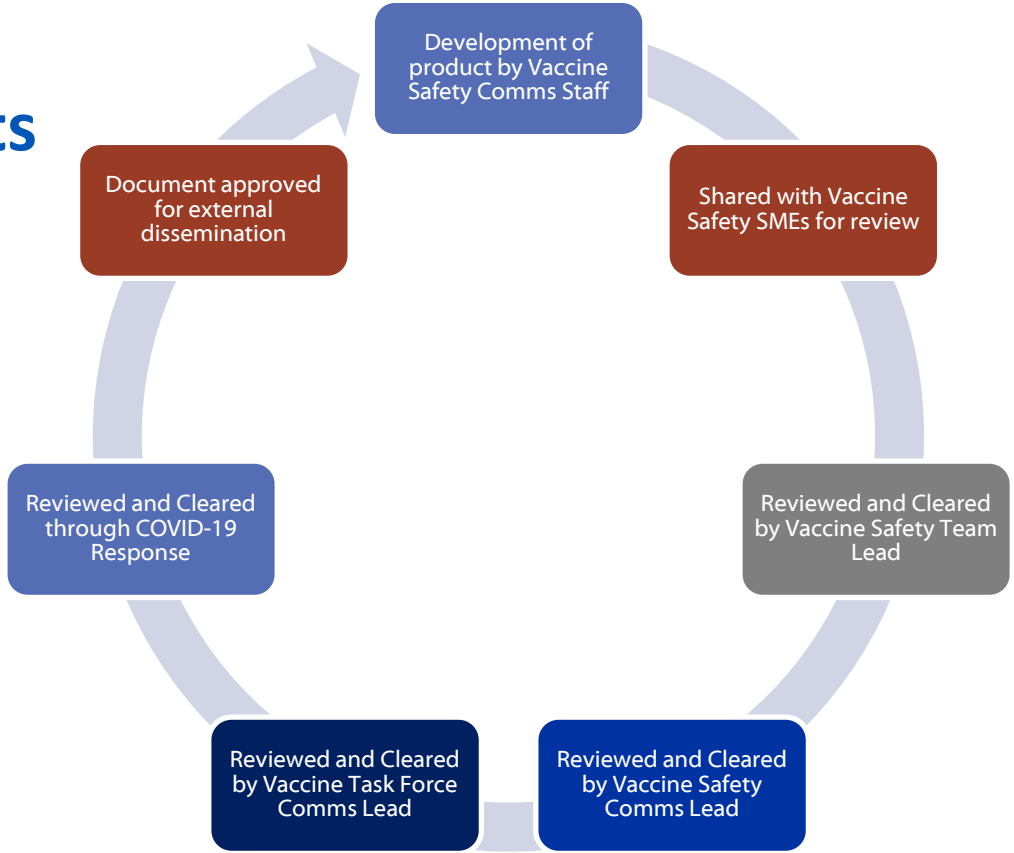
- CDC communicates evidence-based information about vaccine safety to various audiences

- Lessons learned from the COVID-19 response are guiding CDC to improve communication efforts

Backup slides

Developing COVID-19 vaccine safety communication products

- **Similar process as non-emergency documents**
  - Clearance chain differs
- **Review ensures:**
  - Documents align with CDC policies
  - Plain language
  - Clearly understandable
  - Considers equitable graphics



Communicating Findings from ISO Vaccine Safety Studies

- **Manuscript accepted for publication**
- **Communications rollout plan developed**
  - May include talking points, social and other media plan, draft social media posts
- **Updating federal partners**
- **Publication of manuscript**
- **Notification of partners through newsletters**
- **Depending on findings:**
  - Website updates
  - Updates to interim clinical considerations guidance
  - Digital media (social, emails to vaccine safety distribution list)

Federal and International Advisory Committees

Advisory Committee on Immunization Practices (ACIP)

- Including the COVID-19 Vaccine Safety Technical (VaST) Work Group (2020—2023)

Vaccines and Related Biological Products Committee (VRBPAC)

National Vaccine Advisory Committee

Advisory Commission on Childhood Vaccines

WHO's Global Advisory Committee on Vaccine Safety

National Immunization Technical Advisory Groups in other countries

Key Components of Communicating Vaccine Safety

- Data monitoring/evaluation and reporting
- Communication and collaboration with partners
- Public information dissemination
- Healthcare provider support
- Public awareness campaigns
- Crisis communication
- Public and healthcare provider responses
- Feedback and evaluation

Internal vaccine safety communications

- **Coordinate with other federal agencies**
- **Provide updates to other programs**
- **Update leadership**
  - DHQP, NCEZID, NCIRD, and CDC
- **Present findings to ACIP Work Groups**
- **Work with NCIRD colleagues for updating ICC and VIS**

*Internal – within the U.S. Government ACIP: Advisory Committee on Immunization Practices, NCEZID- National Center for Emerging Zoonotic and Infectious Diseases; NCIRD- National Center for Immunization and Respiratory Diseases, ICC: Interim Clinical Considerations, VIS: Vaccine Information Sheets, MMWR: Morbidity and Mortality Weekly Report

Preparing for the National COVID-19 Vaccination Program

- **CDC started developing a COVID-19 vaccine safety communications plan in summer 2020**
- **Plan included:**
  - Goals and objectives
  - Situation analysis
  - Anticipated audiences
  - Pre-developed messages
  - Channels and tactics, including activities and products
  - Evaluation and metrics
  - Timeline