Explaining Vaccine Efficacy and Equity

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Communicating COVID-19 Vaccines:
Building Confidence and Explaining Efficacy
National Academies of Science, Engineering and Medicine
Societal Experts Action Network

May 4, 2021

Questions

What are the key strategies public officials can use to communicate effectively with the public about vaccine efficacy and equity in vaccine distribution?

How can public officials address uncertainty and changing situations in their public communication?

A good way to relay the safety and efficacy.
About effective communication regarding Covid-19 vaccines.
About how long the vaccine last and some of the reasons we should get it.
accurate data
accurate information to share with communities
Addressing concerns about pregnancy/breast feeding
Addressing public fear.
Addressing rural hesitancy
addressing vaccine hesitancy
Addressing vaccine hesitancy in vulnerable populations
All future accessible ways to get the vaccine and benefits in getting a covid vaccine
All Vaccine efficacy regarding all variants
Answer questions in regards to efficacy of vaccines. People are also hesitant to get specific vaccines because of what has been portrayed in the media. People shouldn't have to feel like they want one vaccine over the other.
Answer to efficacy of COVID-19 vaccines
Any and everything...
any hints
Any information that you can share will be helpful.
Any race/ethnic-specific resources and guidance.
applications home Nursing
Approaches for white evangelicals
Are there separate strategies used in rural vs. suburban vs. urban communities to promote vaccine safety and increase subsequent vaccinations?
As A Public Health Nurse Who Visits SNFs And LTCFs I Would Like To Hear From The Professionals How To Boost Confidence In Residents & In Staff Alike!
As an occupational health nurse for a large state agency it is important to have the best information to share with staff regarding vaccines.
As much as possible
As much as possible...it is a real problem...
assist our program in encouraging our employees to get vaccinated
Availability of resources to support the processes at the community levels
available media kit
Available tools and documents in the safety of the COVID-19. Also, techniques in how to approach the

Public Health Officials

Must serve multiple audiences, facing multiple decisions, with diverse priorities, knowledge, and resources, needing different information, delivered in different ways.

With limited operational resources, great time pressure, irregular information, and mixed societal support.

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They need and deserve systemic support.

APRIL 2021

UNDERSTANDING AND COMMUNICATING ABOUT COVID-19 VACCINE EFFICACY, EFFECTIVENESS, AND EQUITY

Authors: Baruch Fischhoff*
Vaness Northington Gamble**
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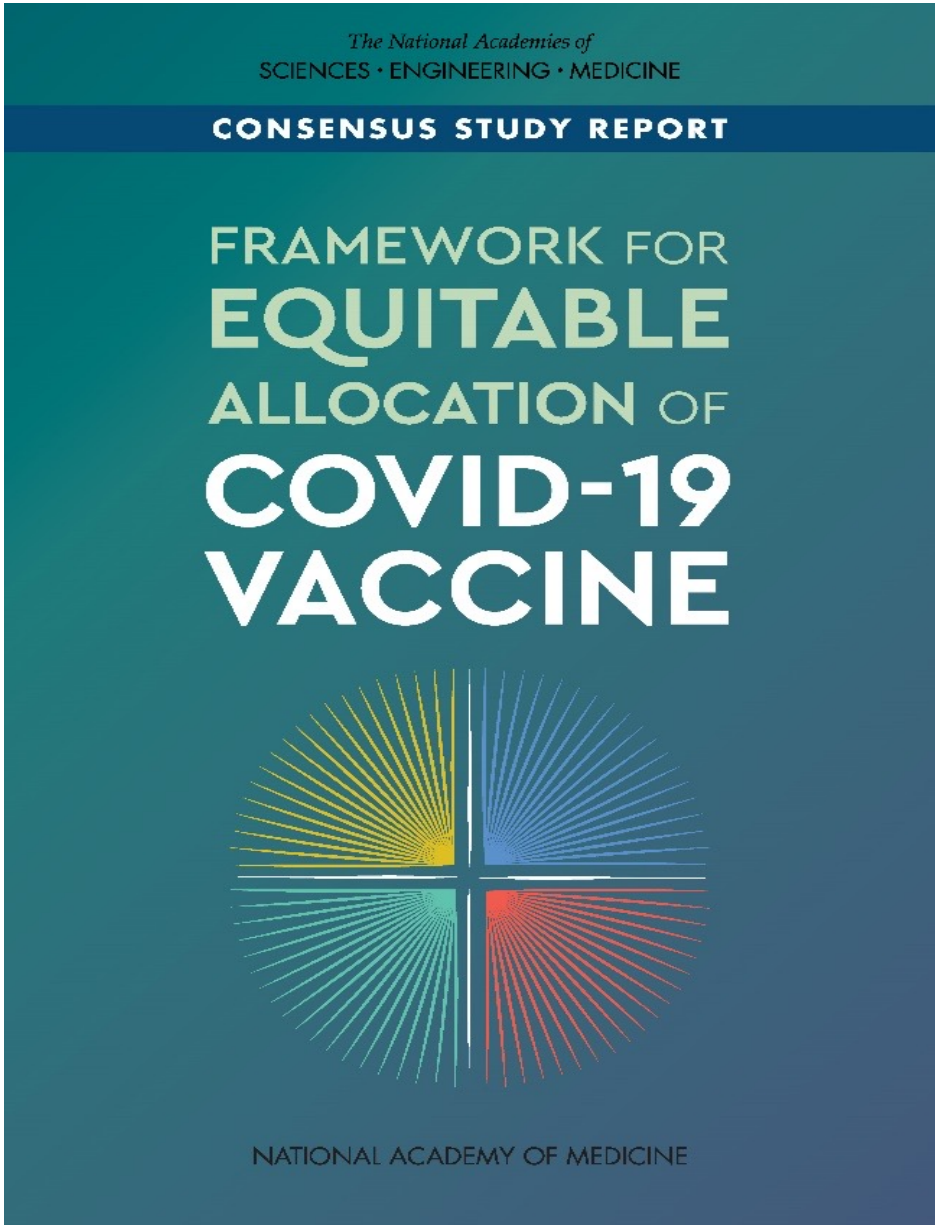
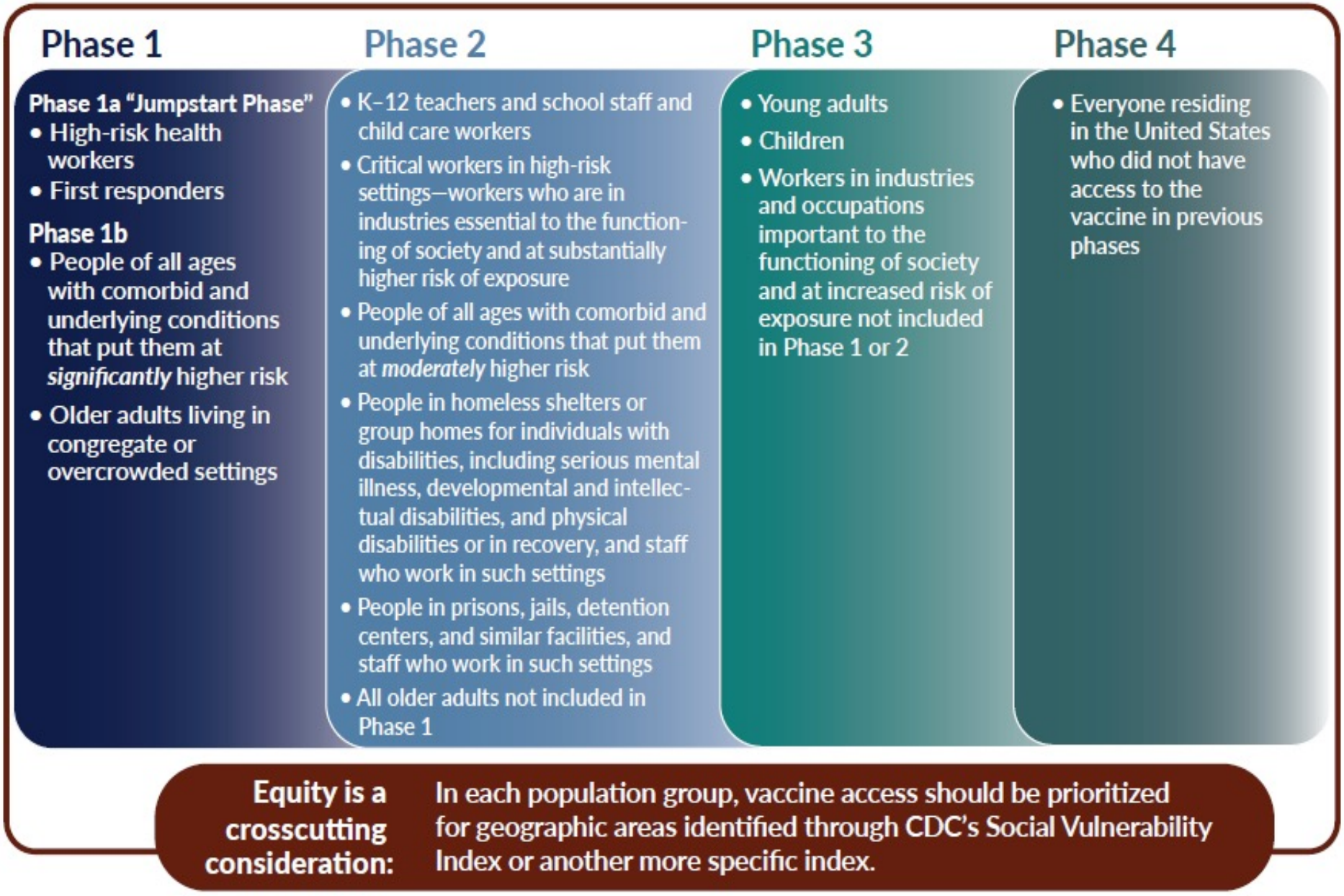
https://www.nap.edu/catalog/26154/

Building Communication Capacity

https://www.nap.edu/catalog/24738



Free PDF of the report and related materials (summaries under Resources tab.
: https://www.nationalacademies.org/our-work/a-framework-for-equitable-allocation-of-vaccine-for-the-novel-coronavirus



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Commitment to Transparency

To ensure that the framework is equitable and **is seen as equitable**, the committee designed it

- to be easily understood by diverse audiences
- to be reliably translated into operational terms
- to distinguish scientific and ethical judgments

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Two Essential, Mutually Dependent Elements of Vaccine Distribution

Risk Communication (Chapter 6)

Providing the facts that people need to feel respected, make personal choices, evaluate programs, and understand their rationale.

Health Promotion (Chapter 7)

Providing consensual recommendations, through trustworthy channels, along with personal and institutional resources needed to act on them.

Science for Addressing Challenges
(Chapter 6)

Risk Communication (content)

- making unfamiliar biological processes clear
- demonstrating equity in process and performance
- tailoring messages to diverse audience
- testing messages before dissemination

Community Engagement (process)

- continuous
- timely
- trustworthy
- appropriate channels

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Content Design Principles

Define terms clearly
Use numbers for quantities
Compare options
Present all relevant outcomes
Acknowledge uncertainty; promise updates

Communication Design Process

Identify the relevant outcomes
Collect and analyze potentially relevant evidence
Set information priorities
Conduct formative testing

Background Information – Limited Relevance

TABLE 2 Characteristics of Authorized COVID-19 Vaccines in the United States as of March 26, 2021

Pfizer BioNTech Vaccine	Moderna Vaccine	Johnson & Johnson (Janssen) Vaccine
Target Population		
• Authorized for 16+	• Authorized for 18+	• Authorized for 18+
Vaccine Type		
• mRNA[a]	• mRNA[a]	• Virus-vector[b]
Vaccine Administration[c]		
• 2 shots • 21 days apart	• 2 shots • 28 days apart	• 1 shot
Common Side Effects[d]		
• Pain at injection site, fatigue, headache, muscle pain, joint pain, fever (more common after 2nd dose)	• Pain at injection site, fatigue, headache, muscle pain, joint pain, fever (more common after 2nd dose, more so in younger adults)	• Pain at injection site, fatigue, headache, muscle pain, joint pain, fever
Storage Requirements		
• Frozen vials are shipped in thermal containers with dry ice. Undiluted frozen vials can be stored at temperatures –25°C to –15°C (–13°F to 5°F) for up to 2 weeks. • Vials must be kept frozen and protected from light until ready to use.	• Vials arrive frozen at –25°C to –15°C (–13°F to 5°F) and should be stored in the original carton to protect from light. • Vials can be stored refrigerated at 2°C to 8°C (36°F to 46°F) for up to 30 days prior to first use.	• Must be transported at refrigerated temperatures of 2°C to 8°C (36°F to 46°F). • Can be stored for up to 3 months at refrigerated temperatures of 2°C to 8°C (36°F to 46°F).

Clinical Trial Information – Greater Relevance

TABLE 1 Summary of Clinical Trial Results as of March 26, 2021

Pfizer BioNTech Vaccine	**Moderna Vaccine**	**Johnson & Johnson (Janssen) Vaccine**
Clinical Endpoints for Defining Vaccine Efficacy		
Preventing Death[a]		
• 100%	• 100%	• 100%
Preventing Hospitalizations[b]		
• 100%	• 89%	• 100%
Preventing Symptomatic COVID-19[c]		
• *Preventing symptomatic COVID-19:* 95% (beginning 7 days after second dose)	• *Preventing symptomatic COVID-19:* 94.1% (beginning 14 days after second dose)	• *Preventing moderate to severe COVID-19:* 66.3% (beginning 14 days after dose) • *Preventing severe/critical COVID-19 :* 76.7% (beginning 14 days after dose) • *Preventing severe/critical COVID-19:* 85.4% (beginning 28 days after dose)

Real-World Data – Maximum Relevance

Outcome	Pfizer/ BioNTech	Moderna	J&J/Janssen	No Vaccine
Dead				
Hospitalized				
Severe Illness				
Moderate Illness				
Mild Illness				
No excess health effects				

Cell entries:

- numeric estimates
- consistent, consensually understood outcomes
- uncertainty assessments available

Critical Need I
Formative Testing Requirement

The Need

People tend to exaggerate how well they understand one another and blame their audience for their communication failures.

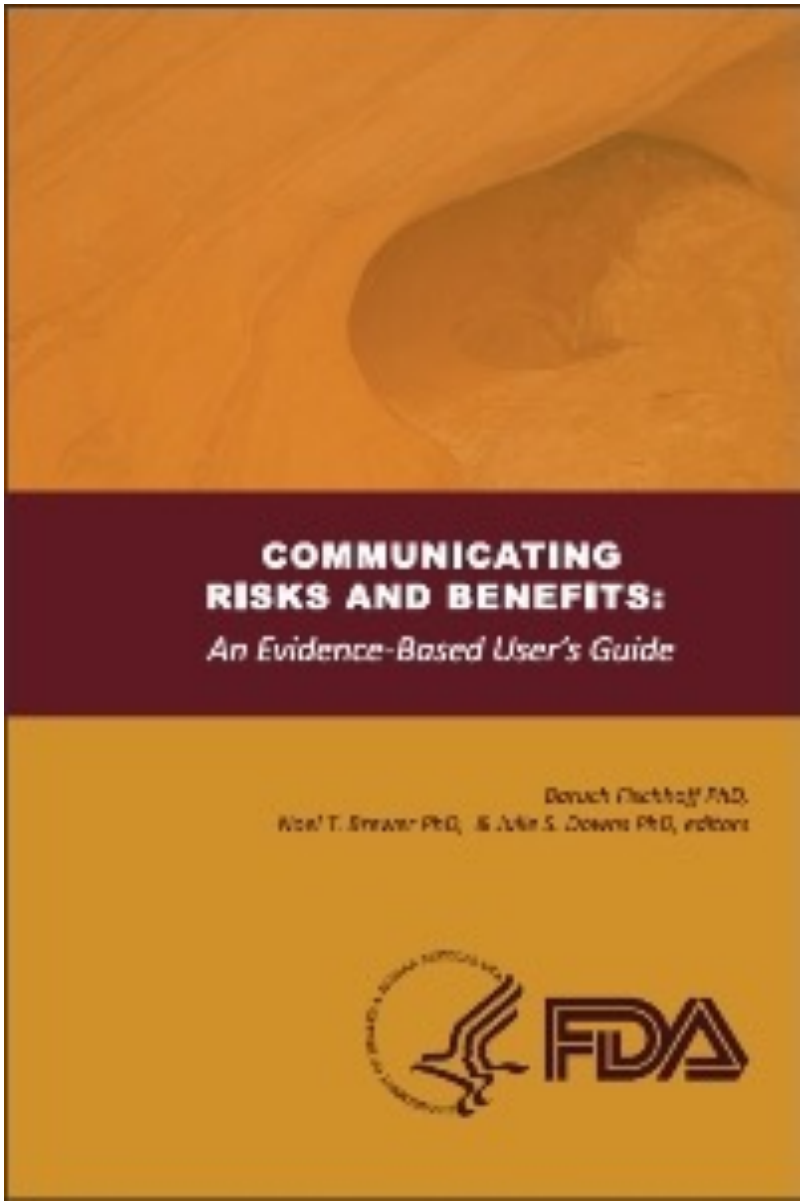
The Fast, Inexpensive Solution

Ask people from the target audience to read draft messages aloud, saying whatever comes into their mind, regarding what is there and missing; testing the message, not them.

Critical Need II
National Resource Center

That will

- create prototype messages, drawing on risk communication science, using common formats and terms, and conducting formative testing;
- liaise with community partners to tailor messages, serve as trusted channels, and provide feedback on local concerns;
- guide scientists in collecting, analyzing, and sharing decision-relevant information.



http://www.fda.gov/AboutFDA/ReportsManualsForms/Reports/ucm268078.htm