

Vaccine hesitancy and COVID-19: considerations for communication

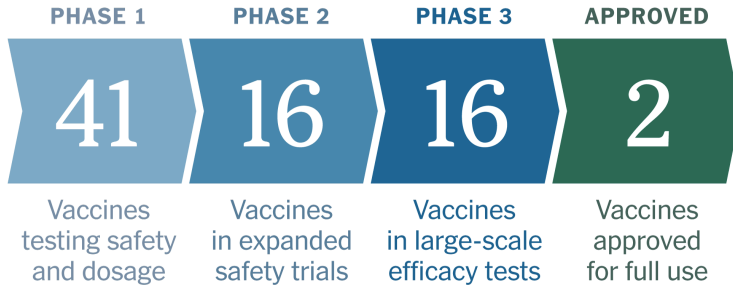


Rupali J. Limaye, PhD, MPH, MA

Departments of International Health, Epidemiology, and Health, Behavior & Society
Director, Behavioral and Implementation Science, International Vaccine Access Center
Johns Hopkins Bloomberg School of Public Health



Coronavirus vaccines in human trials:



- Pfizer mRNA vaccine ~95% effective
- Moderna mRNA vaccine ~95% effective
- Pfizer received emergency use authorization from the FDA; Moderna expected to receive EUA this week
 - Precedent during Trump admin: convalescent plasma therapy; hydroxychloroquine
- Global distribution: COVAX
 - More likely to receive non mRNA products (ie, AstraZeneca)

Now that a COVID-19 vaccine is available

How can we communicate to the public that vaccine recommendations reflect the state of scientific knowledge?

This problem is exacerbated:

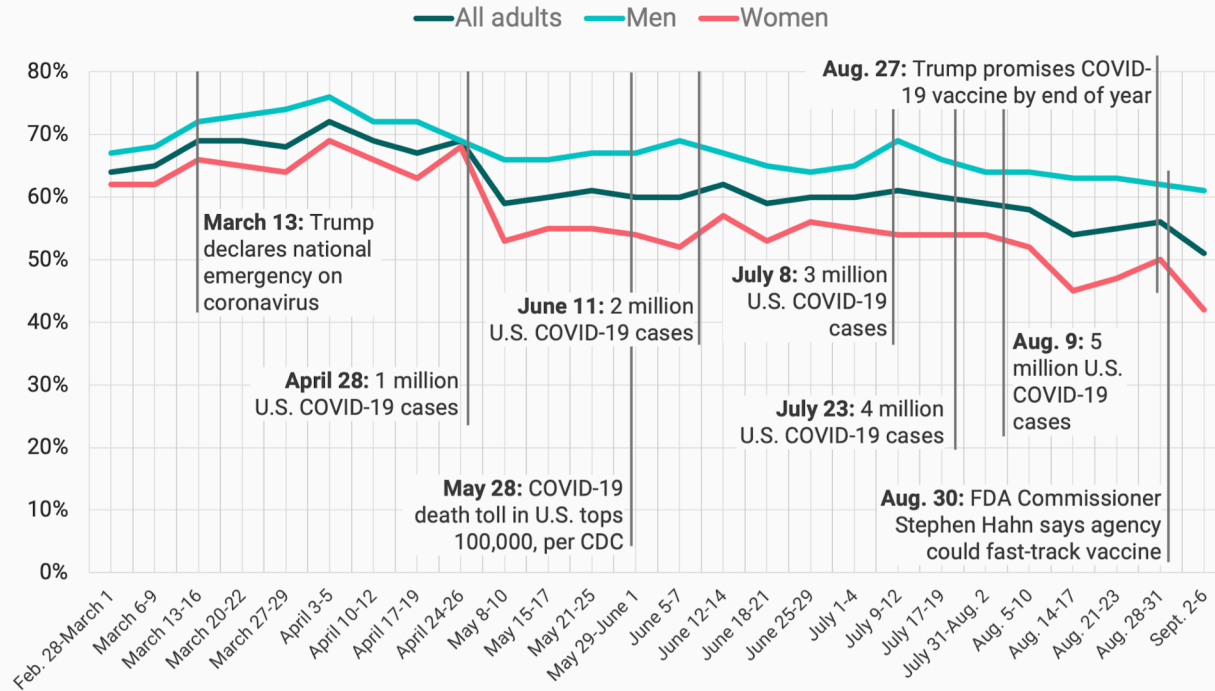
- In times of crisis, during which there is considerable scientific uncertainty
- When available measures have a limited effect
- Politicians—rather than experts—are the public face of crisis management; “Operation Warp Speed”

Limaye, R.J., Sauer, M., Truelove, S.A. (In press). Politicizing public health: The powder keg of rushing COVID-19 vaccines. *Human Vaccines and Immunotherapeutics*

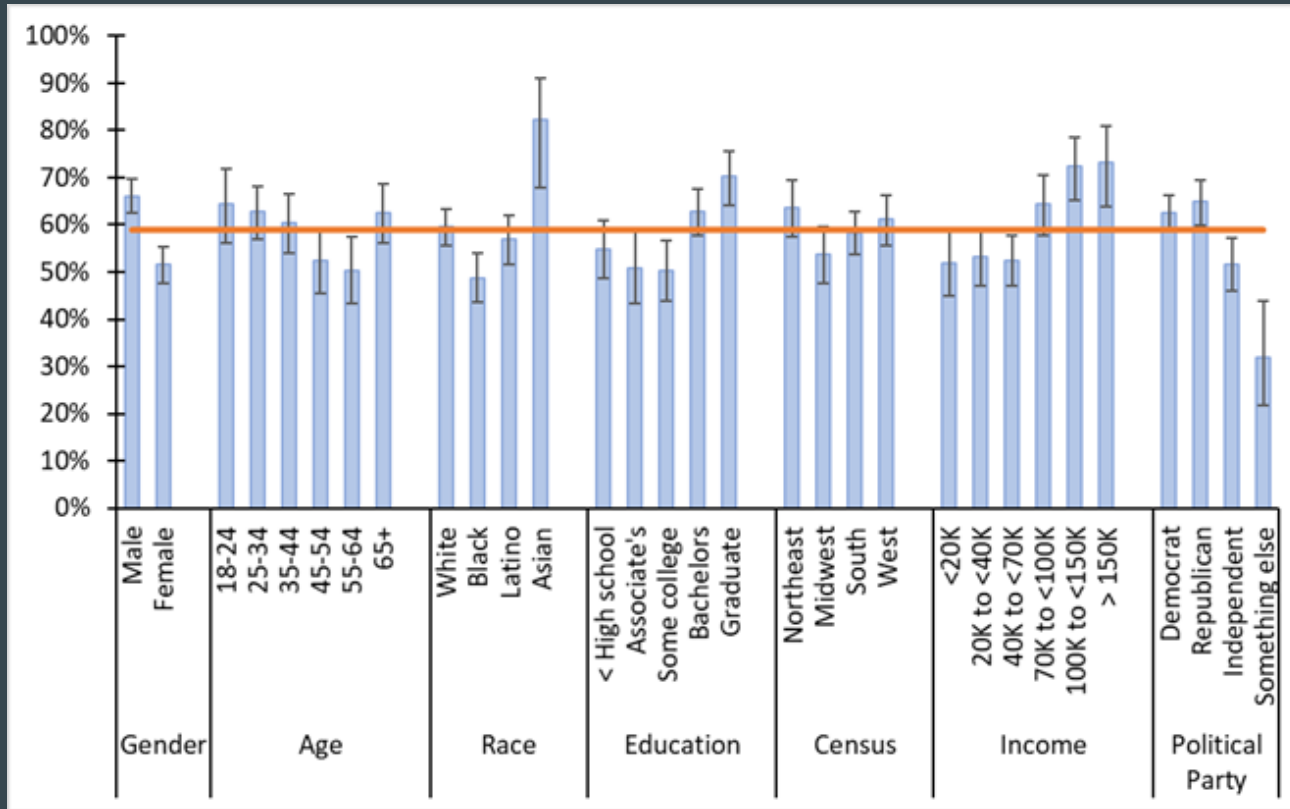
Peretti-Watel, P., Seror, V., Cortaredona, S., Launay, O., Raude, J., Verger, P., ... & Léger, D. (2020). A future vaccination campaign against COVID-19 at risk of vaccine hesitancy and politicisation. *The Lancet Infectious Diseases*.

Share of U.S. Adults Who Say They'd Get a COVID-19 Vaccine Has Fallen 21 Points Since Early-April Peak

U.S. adults were asked whether they would get a coronavirus vaccine if one became available

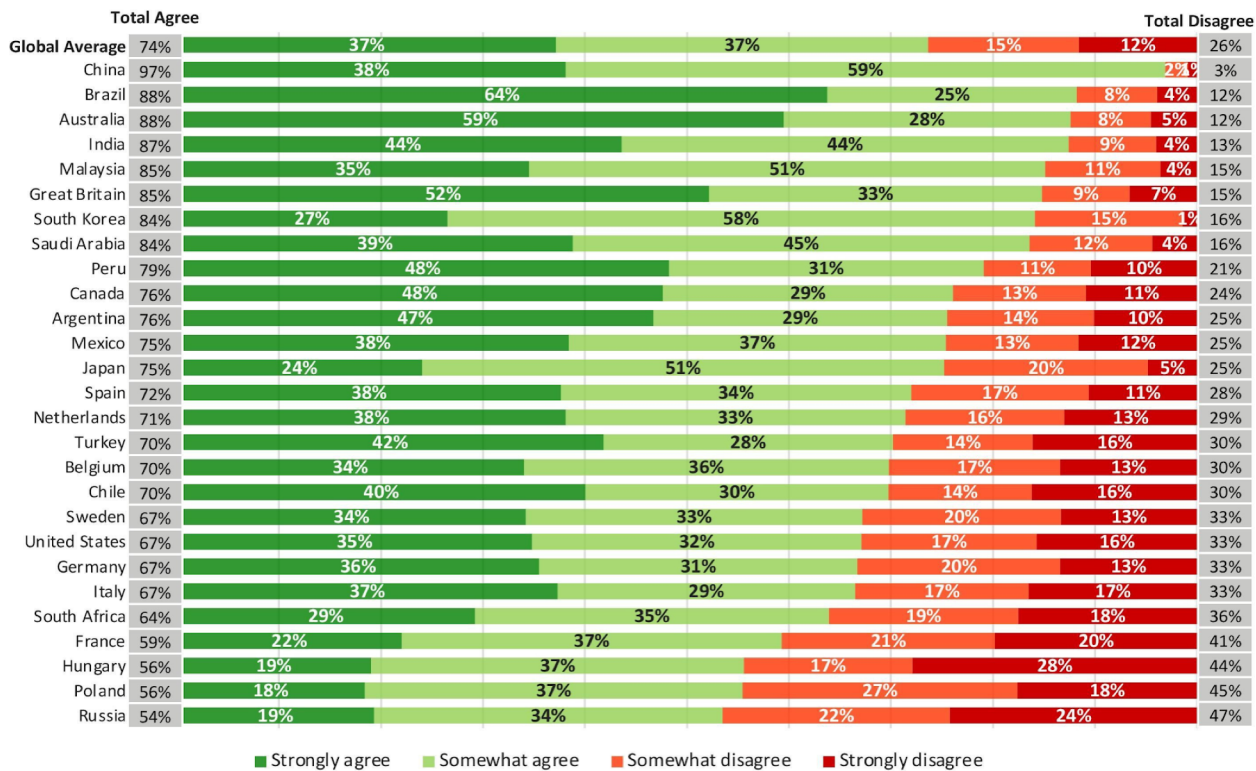


Willingness to accept a vaccine: US



N=1,592
Data collected from
Sept 1 – Sep 7 2020

Interest in getting a COVID-19 vaccine if available

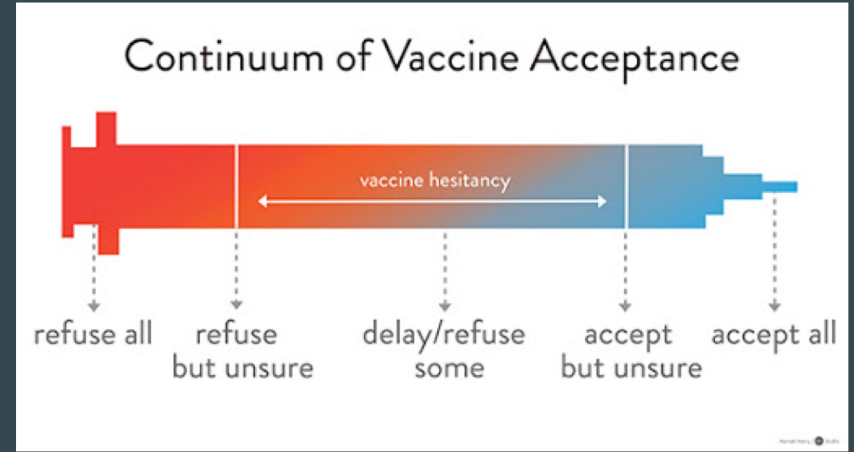


Base: 19,519 online adults aged 16-74 across 27 countries

What is driving vaccine hesitancy within the
COVID-19 context?

Arguments underlying hesitancy have shifted

- Tyranny = government is over-reaching
- Authorities do not know best; science is now just another voice in the room
 - Misinformation
 - Polarization of attitudes





Misinformation and disinformation

Dictionary.com's 2018 Word of the Year: *Misinformation*

- When people spread misinformation, they often believe the information they are sharing
- Disinformation is crafted and disseminated with the intent to mislead others
- **Example: If a political leader claims that COVID-19 is no worse than the flu, despite knowing otherwise, that is *disinformation*. When an individual hears this, believes it, and then shares it, that is *misinformation*.**


Dictionary

Search for a word 

 **mis·in·for·ma·tion**
/ˌmɪsɪnfərˈmæʃ(ə)n/

noun

false or inaccurate information, especially that which is deliberately intended to deceive.
"nuclear matters are often entangled in a web of secrecy and misinformation"

Similar: [disinformation](#) [false information](#) [misleading information](#) [deception](#) 

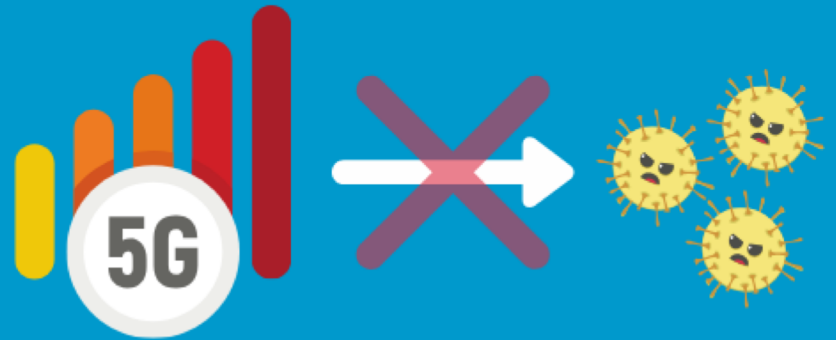
Viruses cannot travel on radio waves/mobile networks.

COVID-19 is spreading in many countries that do not have 5G mobile networks.

COVID-19 is spread through respiratory droplets when an infected person coughs, sneezes or speaks.

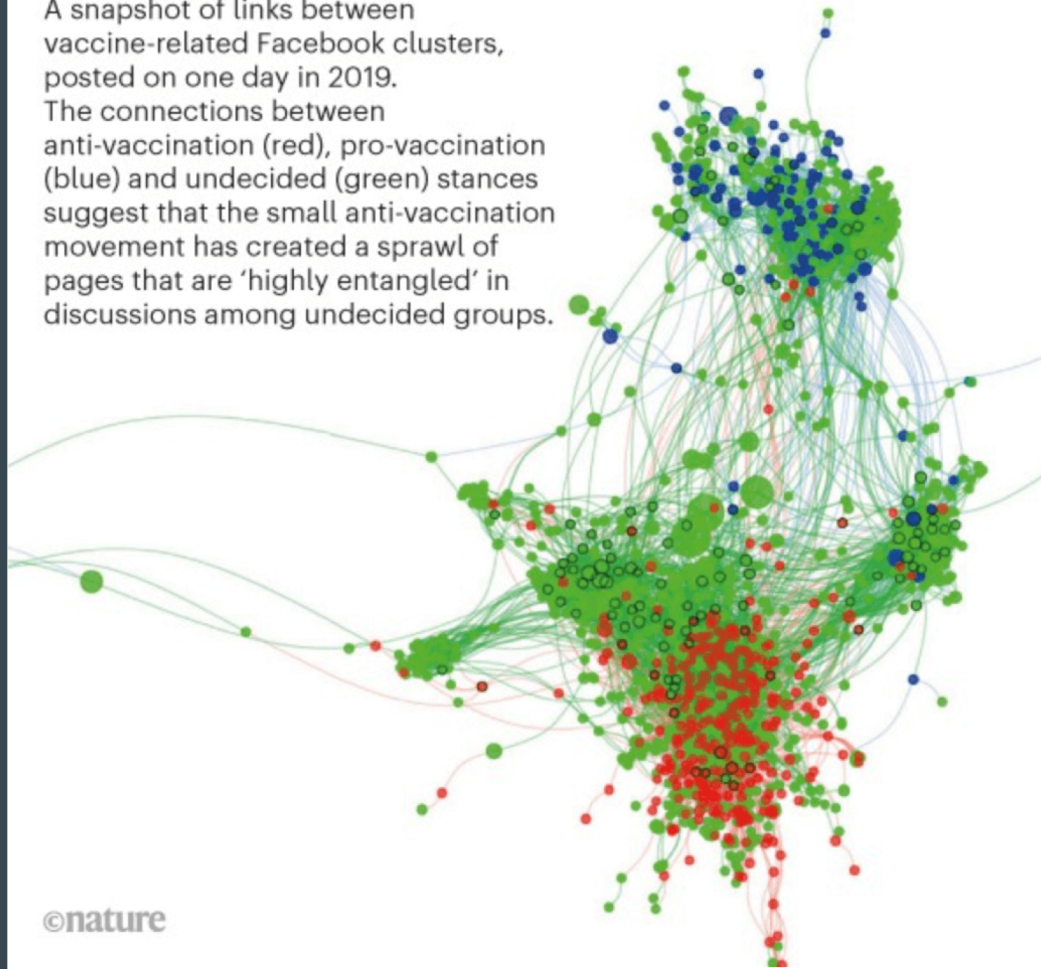
People can also be infected by touching a contaminated surface and then their eyes, mouth or nose.

FACT:
5G mobile networks
DO NOT spread COVID-19

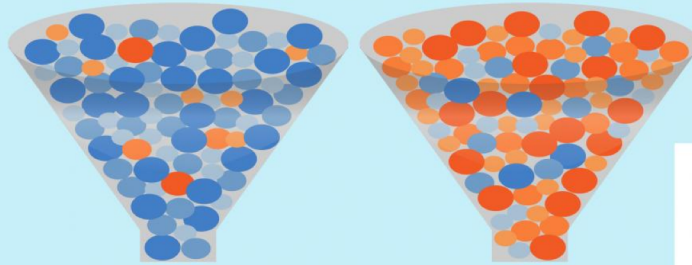


ONLINE COMPETITION BETWEEN VACCINE VIEWS

A snapshot of links between vaccine-related Facebook clusters, posted on one day in 2019. The connections between anti-vaccination (red), pro-vaccination (blue) and undecided (green) stances suggest that the small anti-vaccination movement has created a sprawl of pages that are 'highly entangled' in discussions among undecided groups.



Echo chamber: Parents hear information that reinforces their decision about child's flu vaccine



Decision:
Child will get
flu vaccine



Decision:
Child will not get
flu vaccine

Number of sources
that made parents:

WANT
vaccine

vs

QUESTION or
NOT WANT
vaccine

● 5-6 sources



● 3-4 sources



● 1-2 sources



each circle = 1% of parents

How do we manage demand?

Crisis and Emergency Risk Communication Principles



Crisis and Emergency Risk Communication Principles: Lessons Learned

- **Being first:** On April 1, Georgia Governor Brian Kemp stated that the possibility of asymptomatic transmission of COVID-19 had come to light in the last 24 hours
 - This statement came two months after documented asymptomatic transmission in Germany in January; a January 31st statement by Dr. Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases at the National Institutes of Health (NIH), noting that asymptomatic transmission was certainly occurring; a February 13 statement from Dr. Robert Redfield, director of the US CDC, that asymptomatic transmission was possible

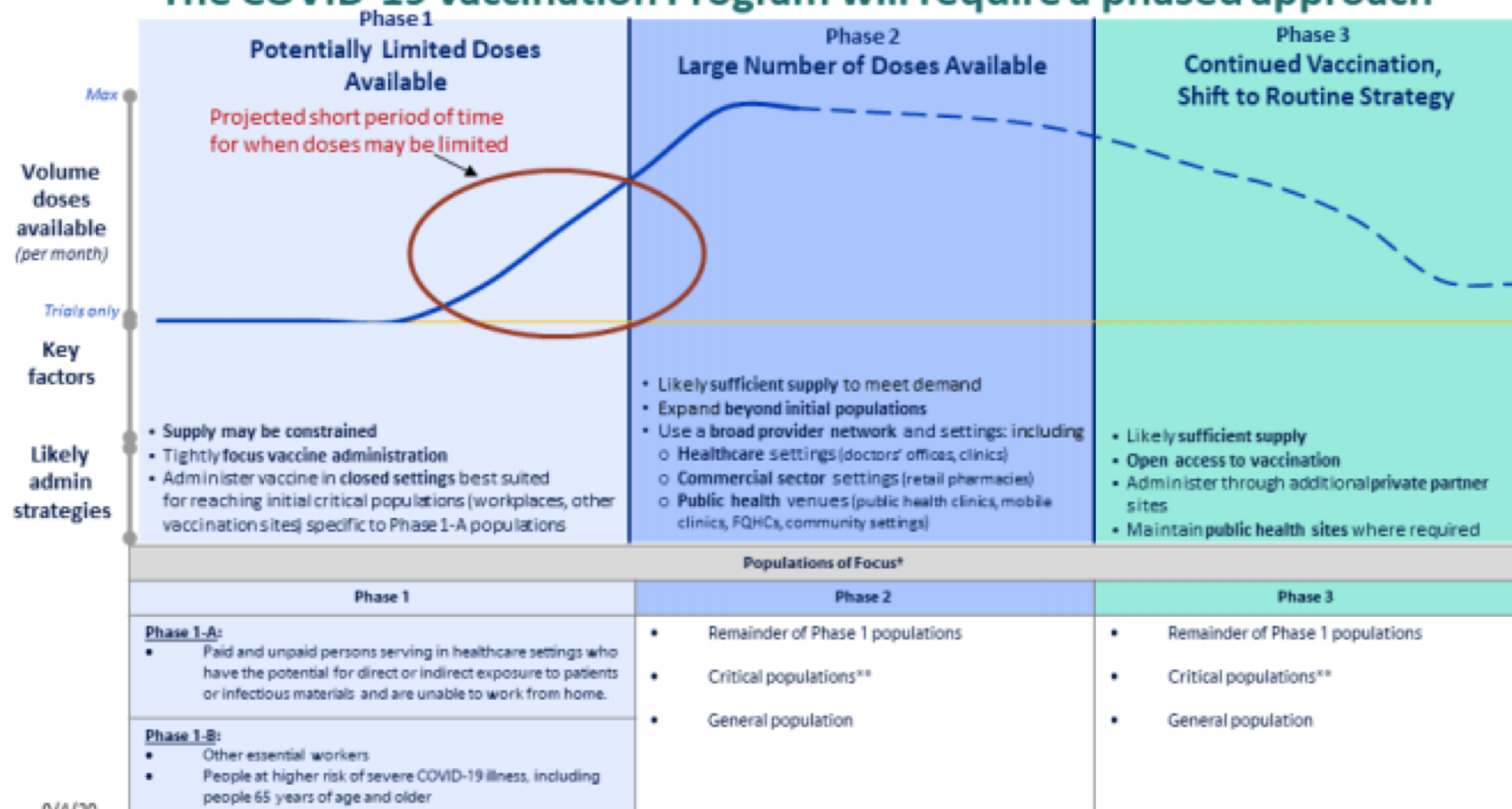
Crisis and Emergency Risk Communication Principles: Lessons Learned

- **Being right:** Shifting guidelines on mask use demonstrate the challenges of managing unknowns and the importance of upholding the “be right” principle
 - In February, the WHO advised the public not to wear masks
 - At the time, studies were underway to assess whether masks—particularly cloth masks, to reduce demand for surgical and N95 masks needed by healthcare workers—could help reduce transmission
 - Less than a month later, the WHO and CDC issued new guidance advising the public to wear masks to help reduce transmission
 - Both Dr. Adams and Dr. Fauci acknowledged the emerging evidence about transmission and the importance of masks and changed their messages, advising individuals to wear face coverings

Crisis and Emergency Risk Communication Principles: Lessons Learned

- **Promoting action:** addition to providing information, crisis communication must include clear, concise, and concrete actions for the public
 - Offering a range of actions may be most impactful: a maximum, middle-ground, and minimum response
 - Public health messaging during this pandemic has included full stay-at-home orders (maximum), guidance to wear masks, avoid public transit and crowds, and practice social distancing and hand hygiene (middle), and if those are not all feasible, to at least practice social distancing and hand hygiene (minimum)
 - Critically, promoting action should highlight their benefits and importance

The COVID-19 Vaccination Program will require a phased approach



Phase 1

Phase 1a "Jumpstart Phase"

- High-risk health workers
- First responders

Phase 1b

- People of all ages with comorbid and underlying conditions that put them at *significantly* higher risk
- Older adults living in congregate or overcrowded settings

Phase 2

- K-12 teachers and school staff and child care workers
- Critical workers in high-risk settings—workers who are in industries essential to the functioning of society and at substantially higher risk of exposure
- People of all ages with comorbid and underlying conditions that put them at *moderately* higher risk
- People in homeless shelters or group homes for individuals with disabilities, including serious mental illness, developmental and intellectual disabilities, and physical disabilities or in recovery, and staff who work in such settings
- People in prisons, jails, detention centers, and similar facilities, and staff who work in such settings
- All older adults not included in Phase 1

Phase 3

- Young adults
- Children
- Workers in industries and occupations important to the functioning of society and at increased risk of exposure not included in Phase 1 or 2

Phase 4

- Everyone residing in the United States who did not have access to the vaccine in previous phases

Equity is a crosscutting consideration:

In each population group, vaccine access should be prioritized for geographic areas identified through CDC's Social Vulnerability Index or another more specific index.

COVAX Fair Allocation Mechanism

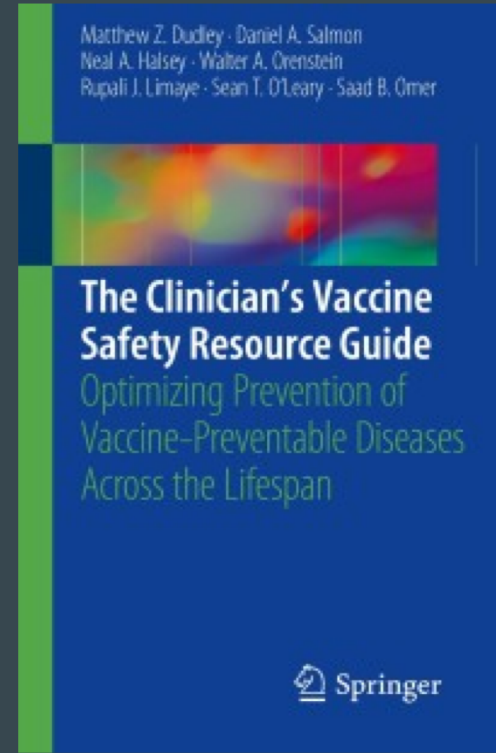
- An initial proportional allocation of doses to countries until all countries reach enough quantities to:
 - Cover 3% of their population to cover health workers
 - Cover 20% of their general population
- A follow-up phase to expand coverage to other populations. If severe supply constraints persist, a weighted allocation approach would be adopted, taking account of a country's COVID threat and vulnerability.

How should practitioners communicate to caregivers?

- **Trust:** Communicate to build, maintain, and restore trust between public and those managing outbreak
 - This includes communication regarding side effects
- **Announce early:** Proactive communication, even with incomplete information, is crucial
 - Baltimore Mayor Young press briefings
- **Transparency:** Maintaining public trust requires ongoing transparency including timely and complete information.
 - Disseminating trial data
- **Listening:** Understanding public risk perceptions, views, and concerns is critical to effective communication

How should we communicate for acceptance?

- **Don't correct misperceptions:** The instinctive response to vaccine-related misinformation is to provide correct information, but this can backfire – called the boomerang effect.
- **Focus on the disease:** Pivot the conversation to the disease itself
- **Use nudges/defaults:** apply presumptive communication
- **Build trust through empathy**





Vaccines work.

They save lives and protect
people from disease.

Thank you!
rlimaye@jhu.edu