How, When, and Why: Can We Have a Candid Conversation About COVID-19 Vaccines?

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How, When, and Why

Can we have a candid conversation about COVID-19 vaccines?

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What does a robust public health response look like?
Our Goals for Today

Help you understand this complex process so that you can:

- Anticipate how you and others make the decision to get vaccinated
- Have conversations with others about COVID-19 vaccines
Hesitancy and Excitement

Reasons people cite for being hesitant (Hamel et al., Jan. 2021; Funk & Tyson, Dec. 2020)

- Side effects
- Prevent me from getting COVID?
- Newness
- Distrust of medical system
Hesitancy and Excitement

Hesitancy more common among:

- Blacks
- Republicans

...but willingness is rising
Hesitancy and Excitement

Reasons people are excited to get vaccinated (Funk & Tyson, Dec. 2020)

- Safety and effectiveness

- ~50 million doses given in U.S.
- More than 10% of population
How do these vaccines work?

How do these vaccines work?

How do these vaccines work?

How do these vaccines work?

How do these vaccines work?

Known Side Effects

**COVID-19**
- Loss of smell
- Lung damage
- Heart damage
- Kidney damage
- Psychiatric conditions
- Diabetes (?)
- Death

**COVID Vaccine**
- Pain at injection site
- Fever
- Fatigue
- Muscle pain/aches
- Serious allergic reaction (11 cases in one million doses, or incidence of 0.0011%)
What about the other vaccines?

- More vaccines coming down the pipeline
  - AstraZeneca/Oxford (76%)
  - Johnson & Johnson/Janssen (~85%)
  - More

- These are *great* vaccines!
- Will reduce severe disease
Vaccine Distribution
What the @$%& happened?
Goals of U.S. PH Institutions

- Prevent epidemics and the spread of disease
- Protect against environmental hazards
- Prevent injuries
- Promote and encourage health behaviors
- Respond to disasters, assist in recovery
- Ensure quality and accessibility of health services
THE 10 ESSENTIAL PUBLIC HEALTH SERVICES

To protect and promote the health of all people in all communities

The 10 Essential Public Health Services provide a framework for public health to protect and promote the health of all people in all communities. To achieve optimal health for all, the Essential Public Health Services actively promote policies, systems, and services that enable good health and seek to remove obstacles and systemic and structural barriers, such as poverty, racism, gender discrimination, and other forms of oppression, that have resulted in health inequities. Everyone should have a fair and just opportunity to achieve good health and well-being.
Components of the Public Health System

- Federal Agencies
- STLTS (State, Tribal, Local, and Territorial Health Departments)
- Government Agencies (Other than Public Health)
- Clinical Care Delivery Systems
- Community-Based Organizations
- Educational Institutions
- Media
- Private, Nonprofit Associations
- Private Industry
Governmental Public Health

State and Local Health Departments
Retain the primary responsibility for health under the US Constitution

- 51**
  State and the District of Columbia Health Departments

- Tribal Health Departments

- 2,565*
  Local Health Departments

- 8**
  Territorial Health Departments

* Number based on 2010 National Profile of Local Health Departments (NACCHO, 2011)
** Numbers cited from ASHPO, Profile of State Public Health, Volume Two, 2011
Public Health Infrastructure

Accreditation Activity as of November 18, 2020

Type of Health Department | Accredited | In Process | Total in e-PHAB
--- | --- | --- | ---
Local | 264 | 125 | 389
State | 36 | 5 | 41
Tribal | 4 | 3 | 7
Territorial | 1 | 1 | 1
Centralized States Integrated System | 1/67 | - | 1/67
Army | 2 | 3 | 5
Number of HDs | 306+1 system | 137 | 444

Population (Unduplicated)*
- 253,476,927 82%
- 37,962,789 12%
- 291,439,716 94%

1 Single accreditation for multiple health departments
*US population is based on the US Census Bureau 2010 population of 308,745,538

Applicant Names Are Kept Confidential
State Health Agency Funding, by Source

As of Sept 2011

- Federal Funds: 45%
- State General Funds: 23%
- Medicare and Medicaid: 7%
- Other State Funds: 16%
- Fees and Fines: 5%
- Other Sources: 4%
- n=48
Most states spend less than $100 per person on public health

Annual public health expenditures per resident by state-level agencies.

Expenditures are inflation-adjusted to constant 2019 dollars and reflect a 2016-18 average. Data includes transfers to local health departments. Sources: State Health Expenditure Dataset, U.S. Census Bureau

Map data: Telegrams/NPR / Graphic: Hannah Recht/KHN, Francois Duckett/AP
Federal Prevention and Public Health Fund faces shortfalls

Originally enacted funding

Actual or scheduled funding

Source: Trust for America's Health / Graphic: Hannah Recht/KHN, Francois Duckett/AP
COVID-19 VACCINATION PHASES IN PENNSYLVANIA

Phase 1A
- Long-term care facility residents
  Health care personnel including, but not limited to:
  • Emergency medical service personnel
  • Nurses
  • Nursing assistants
  • Physicians
  • Dentists
  • Dental hygienists
  • Chiropractors
  • Therapists
  • Phlebotomists
  • Pharmacists
  • Technicians
  • Pharmacy technicians
  • Health professions students and trainees
  • Direct support professionals
  • Clinical personnel in school settings or correctional facilities
  • Contractual HCP not directly employed by health care facility
  • Persons not directly involved in patient care but potentially exposed to infectious material
  • People age 65 and older
  • People age 16-64 with high risk conditions causing increased risk for severe disease

Phase 1B
- People in congregate settings not otherwise specified as LTCF and persons receiving home and community-based services
- First responders
- Correctional officers and other workers serving people in congregate care settings not included in Phase 1A
- Food and agricultural workers
- U.S. Postal Service workers
- Manufacturing workers
- Grocery store workers
- Education workers
- Clergy and other essential support for houses of worship
- Public transit workers
- Individuals caring for children or adults in early childhood and adult day programs

Phase 1C
Essential workers in these sectors:
- Transportation and logistics
- Water and wastewater
- Food service
- Housing construction
- Finance, including bank tellers
- Information technology
- Communications
- Energy, including nuclear reactors
- Legal services
- Federal, state, county and local government workers, including county election workers, elected officials and members of the judiciary and their staff
- Media
- Public safety
- Public health workers
- All individuals not previously covered who are 16 and older and do not have a contraindication to the vaccine (note that at this time, only the Pfizer-BioNTech product is approved for those age 16 and 17)

Updated: 1/19/2021
Other Vaccine Roll Out Challenges

- Supply shortages
- Lack of federal support/guidance/$$$$
- Type of vaccine requires extreme cold so hospitals first line distributors
- No universal healthcare infrastructure
- Those not aligned with systems cannot navigate the technology

WE WERE NOT READY
Why mask and distance after vaccination?

**Multiple Layers Improve Success**
The Swiss Cheese Respiratory Pandemic Defense recognizes that no single intervention is perfect at preventing the spread of the coronavirus. Each intervention (layer) has holes.

**Personal responsibilities**
- Physical distance, stay home if sick
- Hand hygiene, cough etiquette
- If crowded, limit your time

**Shared responsibilities**
- Ventilation, outdoors, air filtration
- Quarantine and isolation
- Masks
- Avoid touching your face
- Fast and sensitive testing and tracing
- Government messaging and financial support
- Vaccines

Source: Adapted from Ian M. Mackay (virologydownunder.com) and James T. Reason. Illustration by Rose Wong
Who will get vaccinated?

Approach communication with *compassion*, *understanding*.

Avoid confrontation.

Many of those who would not get a COVID-19 vaccine say they could change their mind:

<table>
<thead>
<tr>
<th>Definitely</th>
<th>Probably</th>
<th>Probably</th>
<th>Definitely</th>
</tr>
</thead>
<tbody>
<tr>
<td>18%</td>
<td>21</td>
<td>31</td>
<td>29</td>
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</tbody>
</table>

They would NOT get the vaccine: 39%.

They would get the vaccine: 61%.

% among this group who say once others start getting a coronavirus vaccine and there is more information:

- Pretty certain would NOT get vaccine: 53%.
- Possible would get vaccine: 46%.
- No answer <1%.
What should I say?

First, ask questions... (people’s reasons for vaccine hesitancy differ)

- Who do you **trust** for information?
  - Find recommendations and info from someone person trusts, identifies with, and has expertise
  - False information often sensationalizes and lacks data; Accurate information often presents a lot of data
What should I say?

First, ask questions... (people’s reasons for vaccine hesitancy differ)

- What **information** would help you make your decision?

  - **Safety and efficacy:** Data from thousands and thousands of people has found the vaccines to be safe and effective. 50 million doses given now.

  - **Research and development process:** Didn’t cut corners. Cut the red tape.

  - **For those who don't believe COVID to be severe,** vaccine one tool to lower rates, speed reopening
What should I say?

First, ask questions… (people’s reasons for vaccine hesitancy differ)

- What are the **benefits/pros** of getting vaccinated **for you**?
  - Less likely to get sick
  - Peace of mind
  - Travel, spend time with others (with less risk)
What should I say?

Second, help people get an appointment...

- **When** and **where** can they get vaccinated?
- **How** can they make an appointment?
- **Help them register** for an appointment and **help them get there** (transportation)
Do you know someone who is hesitant?

- Let's brainstorm!
- Picture someone in your life you want to talk to about COVID-19 vaccines
- Consider what you might ask and what you might say
- Discuss with your group
Resources

Finding a Vaccine Site
- PA Registry
- Philly Registry

Helping Your Community
- Philadelphia Medical Reserve Corps (MRC)
- Ready PA
- SERVPA
Trusted Sources

- CDC https://www.cdc.gov/vaccines/covid-19/index.html
- Pennsylvania Department of Health https://www.health.pa.gov/topics/disease/coronavirus/Vaccine/Pages/Vaccine.aspx
Bonus Slides
What is Herd Immunity?

When most of a population is immune to an infectious disease, this provides indirect protection to those who are not immune to the disease.
What are these new COVID variants?

- Viruses generate mutations as long as they are replicating
- Concern about variants identified in the UK, South Africa, Brazil and USA
- Mutations in spike make them able to dodge immune system to an extent
- Current vaccines are still effective, but somewhat reduced (from super excellent to excellent)
- New variants require increased masking, distancing, and protection
Why mask and distance after vaccination?

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Source: Adapted from Ian M. Mackay (virologydownunder.com) and James T. Reason. Illustration by Rose Wong
100% of the population

Time →

Susceptible

Sick
People infected with \textit{mutant} variant

Recovered

Vaccinated