Vaccine Education
Ambassador Training:
Training for Informed Vaccine Decision Making

Dr. Susana Morales, Dr. Marcus Lambert, Dr. Linnie Golightly, Dr. Kevin Holcomb, and Dr. Avelino Amado

1.18.21
Presentation Overview

• Please remain on mute, unless asked to join in Q&A
• Submit questions through the chat
• Webinar recording and slides will be emailed to participants
• We have no relevant disclosers.

Topics:
• Who we are and today’s purpose
• Vaccine hesitancy
• The Vaccines: what you need to know
• Strategies for talking with others about COVID-19 vaccine
• Q&A
Who we are:

- **Susana Morales, M.D.** – *Internal Medicine Physician & Director of the Diversity Center of Excellence*
- **W. Marcus Lambert, Ph.D.** – *Biomedical and Social Science Researcher & Asst. Dean of Diversity*
- **Linnie Golightly, M.D.** – *Infectious Disease Physician-Scientist & Associate Dean of Diversity & Inclusion*
- **Kevin Holcomb, M.D.** – *Obstetrician-Gynecologist, Vice Chair of Gynecology, & Associate Dean of Admissions*
- **Avelino Amado, Ph.D.** – *Kinesiology Researcher & Data Scientist*
Why we are here:

“Of all the forms of inequality, injustice in health is the most shocking and the most inhuman because it often results in physical death.”
- Dr. Martin Luther King Jr.

Goal: To offer tips and tools for helping others make an informed decision about COVID-19 vaccination.
U.S. COVID-19 update: Jan 18, 2021

Total Cases: 23,653,919
Deaths: 394,495

Case Rate per 100,000 population

https://covid.cdc.gov/covid-data-tracker
New U.S. cases per day

Daily Trends in Number of COVID-19 Cases in the United States Reported to CDC

- 213,145 New Cases
- 3,557 New Deaths

https://covid.cdc.gov/covid-data-tracker
Black, Hispanic and Native American cases and deaths exceed their % of the population

Source: COVID Tracking Project; 2018 American Community Survey five-year estimates from the U.S. Census Bureau

Credit: Daniel Wood/NPR
Racial and income differences in concerns over contracting COVID-19, spreading it to others

<table>
<thead>
<tr>
<th></th>
<th>Will get COVID-19 and require hospitalization</th>
<th>Might unknowingly spread COVID-19 to others</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>24</td>
<td>33</td>
</tr>
<tr>
<td><strong>White</strong></td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td><strong>Black</strong></td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td><strong>Hispanic</strong></td>
<td>43</td>
<td>49</td>
</tr>
<tr>
<td><strong>Upper income</strong></td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td><strong>Middle income</strong></td>
<td>21</td>
<td>32</td>
</tr>
<tr>
<td><strong>Lower income</strong></td>
<td>33</td>
<td>38</td>
</tr>
</tbody>
</table>

Notes: Whites and blacks include only those who are not Hispanic; Hispanics are of any race. Family incomes are based on 2018 earnings and adjusted for differences in purchasing power by geographic region and for household size.

Source: Survey of U.S. adults conducted April 7-12, 2020.

PEW RESEARCH CENTER
Majority of Americans now say they would get a vaccine for the coronavirus

% of U.S. adults who say if a vaccine to prevent COVID-19 were available today, they ...

<table>
<thead>
<tr>
<th></th>
<th>May '20</th>
<th>Sept '20</th>
<th>Nov '20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely</td>
<td>42</td>
<td>51</td>
<td>29</td>
</tr>
<tr>
<td>Probably</td>
<td>30</td>
<td>30</td>
<td>31</td>
</tr>
<tr>
<td>Probably</td>
<td>16</td>
<td>25</td>
<td>21</td>
</tr>
<tr>
<td>Definitely</td>
<td>11</td>
<td>24</td>
<td>18</td>
</tr>
</tbody>
</table>

Would get the vaccine

Would NOT get the vaccine

% 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%

Note: Respondents who did not give an answer are not shown.
Source: Survey conducted Nov. 18-29, 2020.

"Intent to Get a COVID-19 Vaccine Rises to 60% as Confidence in Research and Development Process Increases"

Pew Research Center
Willingness to accept a vaccine falls on a continuum

Increasing confidence in vaccine, vaccinator, and health system

May have questions, take “wait and see” approach, want more information

Refusal

Passive Acceptance

Demand
Which Groups Are Most Likely To Be COVID-19 Vaccine Hesitant?

Percent within each group who say, if a COVID-19 vaccine was determined to be safe by scientists and available for free to everyone who wanted it, they would probably not get it or definitely not get it:

- Republicans: 42%
- Ages 30-49: 36%
- Rural residents: 35%
- Black adults: 35%
- Essential workers: 33%
- Independents: 31%
- Health care workers: 29%
- Men: 29%
- Ages 18-29: 28%
- Total: 27%
- Suburban residents: 27%
- Women: 26%
- Hispanic adults: 26%
- White adults: 26%
- Ages 50-64: 26%
- Urban residents: 25%
- Household with serious health condition: 22%
- Ages 65 and over: 15%
- Democrats: 12%

<table>
<thead>
<tr>
<th>Reason</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm concerned about potential side effects</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>I think COVID-19 vaccine may not be safe</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I don't think that COVID-19 is dangerous to my health</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>I am against vaccination in general</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>The best way is to let nature take its course</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>I believe natural or traditional remedies</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>I'm afraid of injections</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Religious reasons</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Causes of COVID-19 vaccine hesitancy vary

• Personal or group experiences of racism, mistreatment and abuse, including in healthcare
• Politicization of vaccines and COVID-19
• Anti-vaccine advocacy
• Suspicion regarding pharmaceutical industry motivations, history of abuses by pharmaceutical industry
• Mistrust of government authorities, science, health care industry
Prepare for COVID-19 vaccine conversations

- Make your own decision about vaccination
- Start conversations today
- Engage in effective conversations
- Be prepared for questions

Modified from: https://www.cdc.gov/vaccines/covid-19/health-systems-communication-toolkit.html
Vaccines: What you need to know
How do vaccines work?

A vaccine works by showing your immune system what a piece of the coronavirus looks like, essentially a "mug shot" of the coronavirus, so that if the real coronavirus ever tries to enter your body it will be recognized and attacked by immune cells and antibodies.
Clinical trials test whether vaccines are safe and effective
Accelerated vaccine development

- **Researchers did not start from scratch**
  - Scientists had existing data on the structure, genome, and life cycle of this type of virus (MERS, SARS)

- **Worldwide sharing of data**
  - We knew the viral genetic sequence in Jan 2020

- **New messenger RNA (mRNA) technology**

- **Unprecedented financial support**
  - Purchased allotments of the vaccines prior to knowing its success

---

**Vaccine development**

<table>
<thead>
<tr>
<th>Typical development of vaccine</th>
<th>Covid-19 vaccine development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-clinical Analysis</td>
<td>Pre-clinical</td>
</tr>
<tr>
<td>Phase I</td>
<td>Phase I</td>
</tr>
<tr>
<td>Small numbers of people</td>
<td>Phase II</td>
</tr>
<tr>
<td>Phase II</td>
<td>100s of people</td>
</tr>
<tr>
<td>Phase III</td>
<td>1000s in study</td>
</tr>
<tr>
<td>Regulatory review</td>
<td>Large numbers of doses</td>
</tr>
<tr>
<td>Vaccine approved and distributed</td>
<td>at risk</td>
</tr>
</tbody>
</table>

COVID-19 vaccine trials by the numbers

As of November 20, 2020

**Pfizer/BioNTech**
- ~44,000 enrolled
- 150 clinical sites
  - 39 U.S. states
- Racial/ethnic distribution
  - 13% - Hispanic (U.S. only)
  - 10% - African American
  - 6% - Asian
  - 1.3% - Native American
- 39% ages 56-85

As of October 22, 2020

**Moderna**
- 30,000 enrolled
- 89 clinical sites
  - 32 U.S. states
- Racial/ethnic distribution
  - 20% - Hispanic
  - 10% - African American/Black
  - 4% - Asian
  - 3% - All others
- 64% ages 45 and older
  - 39% ages 45-64
  - 25% ages 65+


For more information, visit [www.clinicaltrials.gov](http://www.clinicaltrials.gov)
Pfizer and Moderna Vaccines Work:
More than 90% effective at preventing COVID-19 disease

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Information</th>
<th>People tested</th>
<th>Does it work?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pfizer</td>
<td>2 shots, 21 days apart</td>
<td>36,621</td>
<td>95% protection</td>
</tr>
<tr>
<td></td>
<td>Approved for ≥16 years old</td>
<td></td>
<td>170 infections</td>
</tr>
<tr>
<td></td>
<td>• 162 in placebo</td>
<td></td>
<td>• 8 in vaccine group</td>
</tr>
<tr>
<td></td>
<td>30,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderna</td>
<td>2 shots, 28 days apart</td>
<td>94.5% protection</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved for ≥18 years old</td>
<td>95 infections</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 90 in placebo</td>
<td></td>
<td>• 5 in vaccine group</td>
</tr>
</tbody>
</table>

About the COVID-19 mRNA vaccines

• These mRNA vaccines are expected to produce side effects after vaccination, especially after the 2nd dose.

• **Side effects** may include:
  - injection site pain
  - headache
  - muscle aches
  - fever

• No significant safety concerns were identified in the clinical trials.

• At least 8 weeks of safety data were gathered in the trials. It is unusual for side effects to appear more than 8 weeks after vaccination.

Source: https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/covid-19/clinical-considerations.html
Vaccination is a safer way to build protection than getting COVID-19

• Getting the virus that causes COVID-19 may offer some natural protection, known as immunity. But experts don’t know how long this protection lasts.

• The risk of severe illness and death from COVID-19 far outweighs any benefits of natural immunity.

• COVID-19 vaccination will help protect you by creating an antibody response without the risk of severe illness.
Know the elements of effective vaccine conversations

- Start from a place of respect, empathy and understanding.
- Address misinformation by sharing key facts.
- Listen to and respond to questions.
- Proactively explain side effects.
- Share your story!
Speaking with groups about vaccines

- Targeted messaging to the audience and with trusted messengers
- Address questions and concerns
- Negative messages make thing worse—important to emphasize safety and effectiveness, not horrible COVID-19 data
- Don’t overuse statistics or graphs
- Speak about your personal experience and journey to make your own decision

**WHO**

There are many people already in your network who you can talk with about the COVID vaccines:

- Extended family
- Civic organizations
- Colleagues
- Faith communities
- Classmates
- Community leaders
- Online communities
Know where to go for the latest information about COVID-19 vaccines

- CDC and FDA websites:
  - www.cdc.gov/covid-19

- Your state or local health department
  - https://covid19vaccine.health.ny.gov

- The National Medical Association

- WHO - https://www.who.int/

- GAVI - https://www.gavi.org/
Q&A
“The function of education is to teach one to think intensively and to think critically.”

- Dr. Martin Luther King, Jr., from a speech at Morehouse College in 1948
More resources for COVID-19 vaccine conversations

- https://www.cdc.gov/vaccines/covid-19/hcp/engaging-patients.html
- www.cdc.gov/vaccines/hcp/covid-conversations
- NYS: What You Need to Know | COVID-19 Vaccine (ny.gov)
- NYC Health + Hospital: COVID-19 Vaccines at NYC Health + Hospitals | NYC Health + Hospitals (nychealthandhospitals.org)
- NYC Covid19 Vaccine Finder (lists Moderna or vaccine type by location): NYC COVID-19 Vaccine Finder
- Slides and video will be shared!
Answering Common Patient Questions about COVID-19 Vaccination
Q: How do we know if COVID-19 vaccines are safe?

• **Explain:**
  - FDA carefully reviews all safety data from clinical trials.
  - FDA authorizes emergency vaccine use only when the expected benefits outweigh potential risks.
  - Recommended by trusted independent reviewers
    - NMA COVID-19 Task Force

“COVID-19 vaccines were tested in large clinical trials to make sure they meet safety standards. Many people were recruited to participate in these trials to see how the vaccines offer protection to people of different ages, races, and ethnicities, as well as those with different medical conditions.”
Q: Will the shot hurt? Will it make me sick? What about the side effects?

• Explain:
  o Explain that they cannot get COVID-19 from the vaccine.
  o Explain what the most common side effects from vaccination are, how severe they may be, and that they typically go away on their own within a week.
  o Make sure people know that a fever is a potential side effect.

“These side effects are signs that your immune system is doing exactly what it is supposed to do. It is working and building up protection to disease.”

“Most people do not have serious problems after getting a vaccine. We will understand more about mild side effects of the COVID-19 vaccine before we start to use it. However, your arm may be sore, red, or warm to the touch. These symptoms usually go away on their own within a week. Some people report getting a headache, fever, fatigue, or body aches after getting a vaccine.”
Q: Who should you call if you experience an allergic reaction?

• **Explain:**
  
  o Handouts will be provided that will list a phone number.
  
  o Parents and patients can report severe adverse reactions directly to the CDC’s Vaccine Adverse Event Reporting System (VAERS) online at [https://vaers.hhs.gov/reportevent.html](https://vaers.hhs.gov/reportevent.html) (preferred) or by calling 1-800-822-7967

The handout provided will also share more details about the V-safe app. V-safe is a smartphone-based tool that uses text messaging and web surveys to provide personalized health check-ins after you receive the COVID-19 vaccination. Depending on your answers, someone from CDC may call to check on you and get more information.