



# COVID-19 Vaccines: Information to Empower Our Communities

Susana Morales, MD

Linnie Golightly, MD

Department of Medicine, Weill Cornell/NYP

# Disclosures

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# Disclosures cont.

*Dr. Golightly: has no financial relationships to disclose, and does not intend to discuss any unlabeled/unapproved use of drugs.*

*Dr. Morales: has no financial relationships to disclose, and does not intend to discuss any unlabeled/unapproved use of drugs.*

# Our Discussion Roadmap



- What is COVID-19?
- Why get vaccinated?
- How do vaccines work?
- How do I know the vaccines will protect me and are safe?
- Tell me about the different types of vaccines.
- How did these vaccines become available so quickly while ensuring safety?
- What about allergic reactions, pregnancy and breastfeeding?
- Vaccine confidence starts with you: the importance of information, communication & transparency

# Our Discussion Roadmap



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# As of today—3/2/21—NYC is at an extremely high COVID-19 risk level

The New York Times

U.S.A.

World

Health

## Tracking Coronavirus in New York City, N.Y.



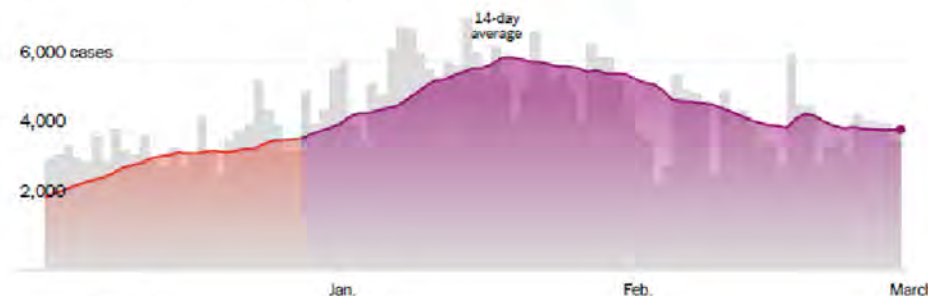
New York City is at an **extremely high risk** level. See why [Full national risk map](#)

The risk of getting Covid-19 is based on cases per capita and test positivity.

LOW MEDIUM HIGH VERY HIGH EXTREMELY HIGH

### New reported cases by day

TOTAL ON MARCH 1 3,704 14-DAY CHANGE -3%



Hospitalized  
14-DAY CHANGE  
-11%



Deaths  
LAST TWO WEEKS  
1,138



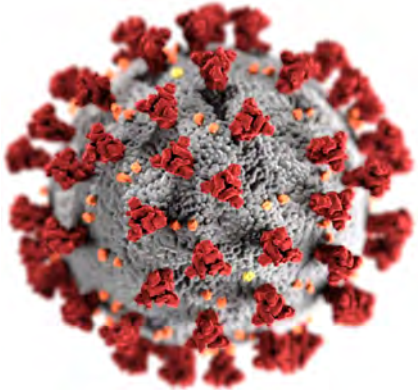
Test positivity  
14-DAY AVG.  
7%



[About this data](#)

Cases are extremely high and have stayed about the same over the past two weeks. The number of **hospitalized Covid patients** has fallen in the New York City area. **Deaths** have remained at about the same level. The **test positivity rate** in New York City is high, suggesting that cases may be undercounted.

# What is COVID-19?



**SARS-COV-2** is the name of the virus

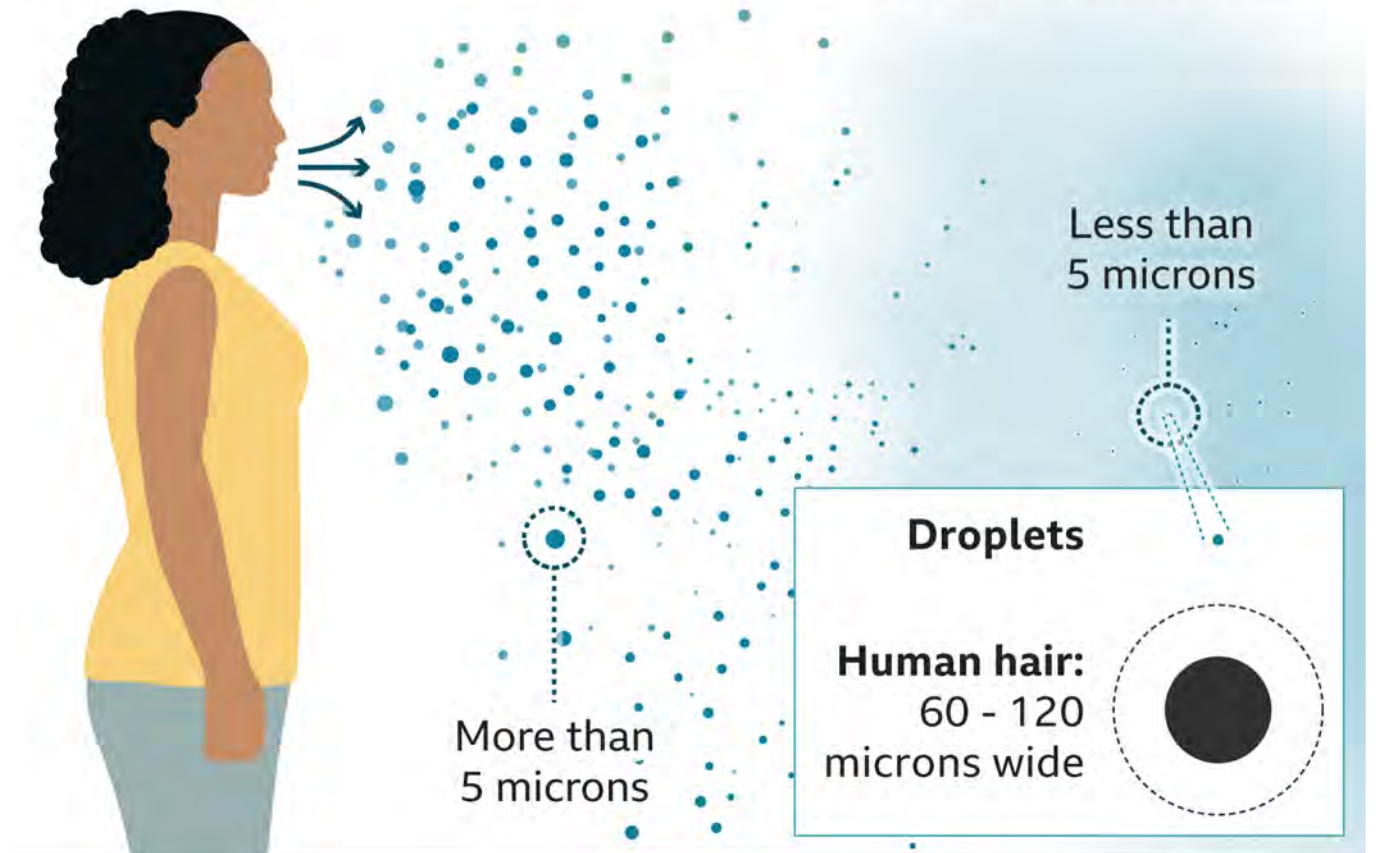
**COVID-19** is the name of the illness that it causes

## Droplet transmission

Coughs and sneezes can spread droplets of saliva and mucus

## Airborne transmission

Tiny particles, possibly produced by talking, are suspended in the air for longer and travel further





**Why Should I Get Vaccinated?**

**To protect yourself**

**Patients with COVID-19 may have these symptoms:**



**Currently, over 1.6 million have been hospitalized with COVID-19 in U.S.**

**COVID-19 has resulted in over 500,000 deaths nationwide**



# Why Should I Get Vaccinated?

# To protect yourself

COVID-19 might cause long-term problems that we don't fully understand yet.



- Structural changes in the heart
- Cardiomyopathy or enlarged heart
- Heart failure



- Worsening kidney function



- Increased blood clots



- “Brain fog”
- Inflammation of the nerves causing weakness/paralysis, parasthesias, e.g., painful pricking/ tingling



- Difficulty breathing and permanent long-term damage, like fibrosis and lung scarring
- Complications from intubations

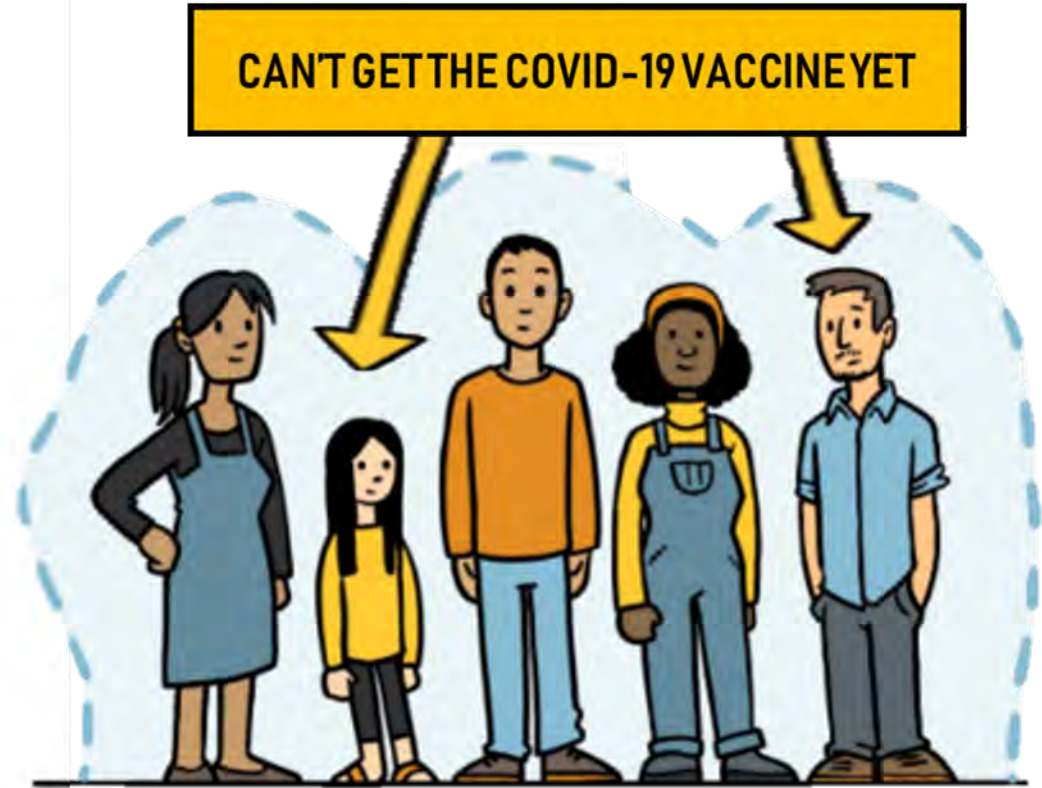
**Reinfection** can occur. Several case reports in the US and other countries; some with worse symptoms, others with less

# Why Should I Get Vaccinated?

To protect your family and your community



A vaccine protects an individual...



Community vaccination protects the whole community, even those who can't get the vaccine yet.

# Why Should I Get Vaccinated?

## To end the Pandemic

Disease	20 <sup>th</sup> Century Annual Morbidity	2019 Reported Cases	% Decrease
Smallpox	29,005	0	100%
Diphtheria	21,053	2	>99%
Measles	530,217	1,287	>99%
Mumps	162,344	3,509	98%
Pertussis	200,752	15,662	92%
Polio (paralytic)	16,316	0	100%
Rubella	47,745	3	>99%
Haemophilus influenza	20,000	14*	>99%

**Coronavirus in the U.S.**

**26.5 million cases**

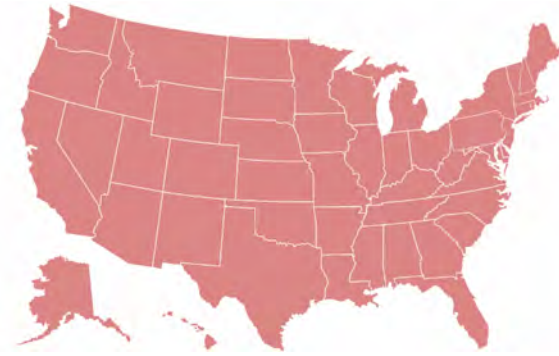
**470,000 deaths**

† JAMA. 2007;298(18):2155-2163 † † National Notifiable Disease Surveillance System, Week 52 (2019 Provisional Data), Unpublished. Atlanta, GA. CDC Division of Health Informatics and Surveillance, 2020. Accessed on January 21, 2020. \* Haemophilus influenzae type b (Hib) < 5 years of age. An additional 12 cases of Hib are estimated to have occurred among the 243 notifications of Hi (< 5 years of age) with unknown serotype.

# How do I know that the vaccines work and are safe?



Each vaccine has been tested in **tens of thousands** of people



**60+ million people** have had a COVID-19 vaccine in the US

Vaccines are held to the **same safety standards and testing phases** as all vaccines.

Vaccine



Placebo



# ALL the vaccines are VERY safe and effective at preventing COVID-19

- ALL the current vaccines are between **80%-95% effective at preventing severe disease.**
- **No significant safety concerns and mild side effects**
- Vaccines **cannot give someone COVID-19.**

## 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

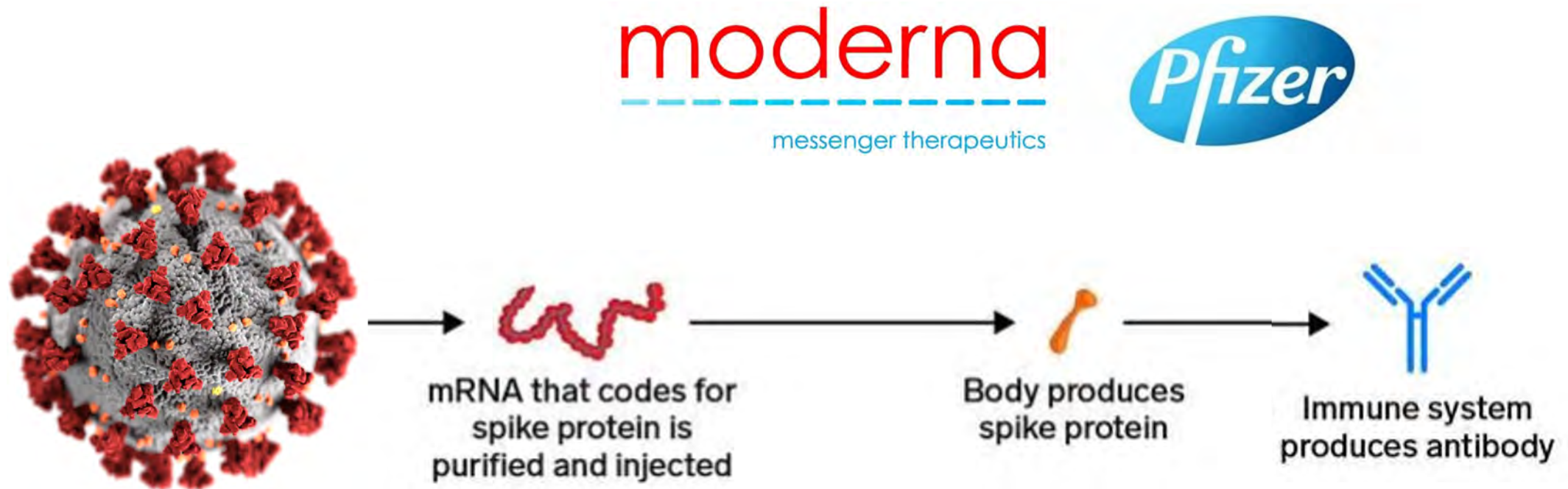
If the real coronavirus tries to enter your body it will be recognized and attacked by **immune cells and antibodies**





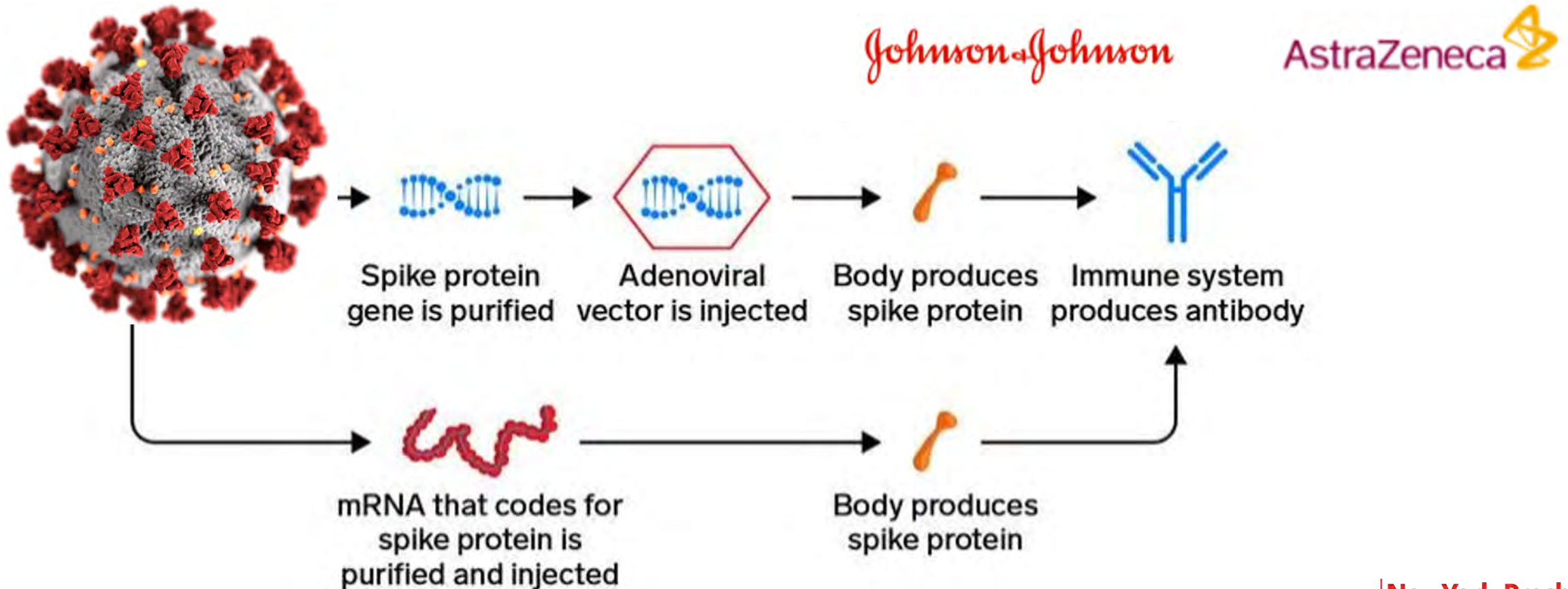
# How Do Vaccines Work?

Messenger RNA (mRNA) vaccines create an instruction manual on **how to make the spike protein** on Sars-COV-2



# How Do Vaccines Work?

Viral Vector vaccines use DNA to tell your cells how to make copies of the spike protein found on Sars-COV-2.



# Messenger RNA Vaccines: Pfizer and Moderna



- 2 doses, 21 days apart
- Approved for  $\geq 16$  years old

**36,621** people tested

**95%** protection against COVID-19 infection with symptoms



- 2 doses, 28 days apart
- Approved for  $\geq 18$  years old

**30,000** people tested

**94.5%** protection against COVID-19 infection with symptoms

Sources: <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-conclude-phase-3-study-covid-19-vaccine>  
<https://investors.modernatx.com/news-releases/news-release-details/modernas-covid-19-vaccine-candidate-meets-its-primary-efficacy>

# Viral Vector Vaccines: Johnson & Johnson



- 1 dose (2 doses are also under study)
- $\geq 18$  years old

**44,325** people tested

- **72%** protection against moderate to severe COVID-19 disease in U.S.
  - 66% in Latin America and 57% in South Africa, likely due to different strains with some resistance
- **85%** protection against severe disease

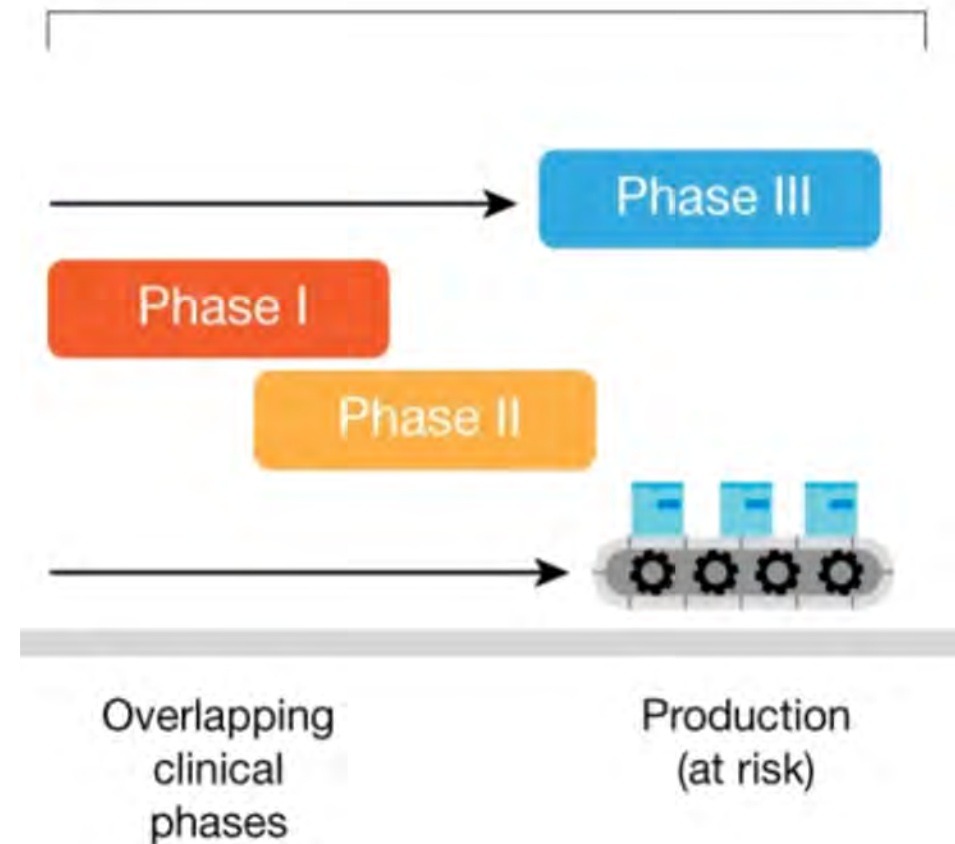
<https://www.inj.com/johnson-johnson-announces-single-shot-janssen-covid-19-vaccine-candidate-met-primary-endpoints-in-interim-analysis-of-its-phase-3-ensemble-trial>

- **No one in clinical trials who got the vaccine was hospitalized, in ICU, or DIED 4 weeks after the vaccine**

## How was the vaccine created so quickly?

- Clinical trial phases were overlapped
- Manufacturing began **while clinical trials are still underway**.
- FDA and CDC are **prioritizing review** and authorization of COVID-19 vaccines.
- Thousands of people **volunteered**

### COVID-19 Vaccine Clinical Trials & Manufacturing done in parallel



## Monitoring safety after the vaccine is approved

There is a strong post-approval monitoring system through **four CDC systems** including Vaccine Adverse Event Reporting System (VAERS) and the V-Safe App.

Safety data across all of the systems are **analyzed and reported each week**.

**VAERS**

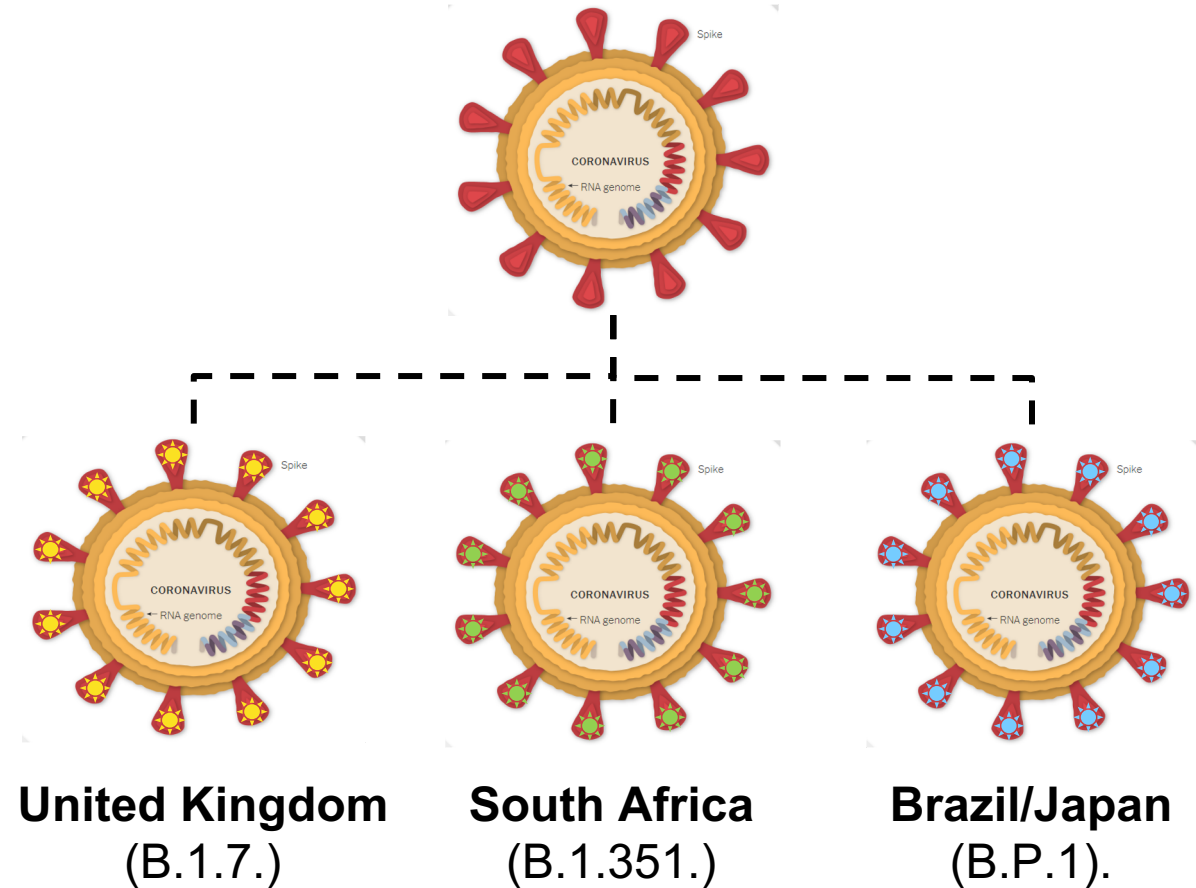
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## What about the new strains?

- If epidemics continue, viruses **spread and mutate** – forming strains.
- **Vaccination is our best tool** to stop mutation and new strains.
- Vaccines will help **protect us** against new strains, but may not be as effective. **But vaccines are still recommended!**



# What else do I need to know about protection?

**Q: I have already been infected with COVID-19 and have COVID-19 antibodies, should I still get the vaccine?**

**A: YES**, because some people have become re-infected and the vaccines might provide better protection.

**Q: If I get vaccinated do I still need to wear a mask and practice social distancing?**

**A: YES**, because, at this time, we do not know if the vaccine prevents all infections (including infection without symptoms) and it is possible that you could still spread it to others.

**Q: How long will the protection last?**

**A: We don't know yet, but studies are ongoing to answer this question.**

## What about allergic reactions?



**Everyone** should stay in the hospital or clinic for **15 minutes** in case you might be allergic to something in the vaccine.

Before getting vaccinated, be sure to document known allergies on your **pre-vaccine checklist**

If you have had a **serious allergic reaction to something other than the vaccine**, you should stay in the immediate area for **30 minutes** after the shot.

If you are **allergic to something in the vaccine**, you should **not get vaccinated**.

**Discuss** any concerns with vaccination team

## What about pregnancy and breastfeeding?



**Pregnant women who get COVID-19 are at greater risk** of being hospitalized, have an increased risk of death, and an even greater risk if they have another chronic condition.

**The vaccine is recommended by ACOG for those planning to become pregnant to protect against COVID prior or during pregnancy**

If you are **breast feeding** you should go ahead and get the vaccine. There is no way for the vaccine to get into the breast milk or affect the baby. You should not stop breast feeding to get the vaccine



# Resources to Make a Vaccination Appointment

## NY State Vaccination Hotline

833-NYS-4VAX

(833-697-4829)

[covid19vaccine.health.ny.gov](https://covid19vaccine.health.ny.gov)

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## NYC COVID-19 Vaccination Hotline

877-VAX-4NYC

(877-829-4692)

[vaccinefinder.nyc.gov](https://vaccinefinder.nyc.gov)

## SOMOS

833-SOMOSNY

(833-766-6769)

[somosvaccination.mdland.com](https://somosvaccination.mdland.com)

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## The Armory at NewYork-Presbyterian

646-697-VACC

(646-697-8222)

[vaccinetogetherny.org](https://vaccinetogetherny.org)



It will take time for everyone to be vaccinated.

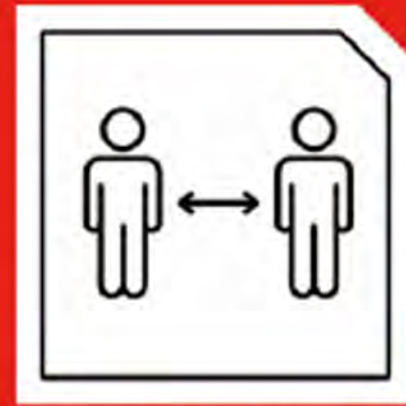
In the meantime, we must all keep  
doing **what we know works**:



**WEAR  
A MASK**



**WASH  
YOUR HANDS**



**WATCH  
YOUR DISTANCE**

**Continue to find joy, peace, meaning, hope, and love every day**







# Thank You

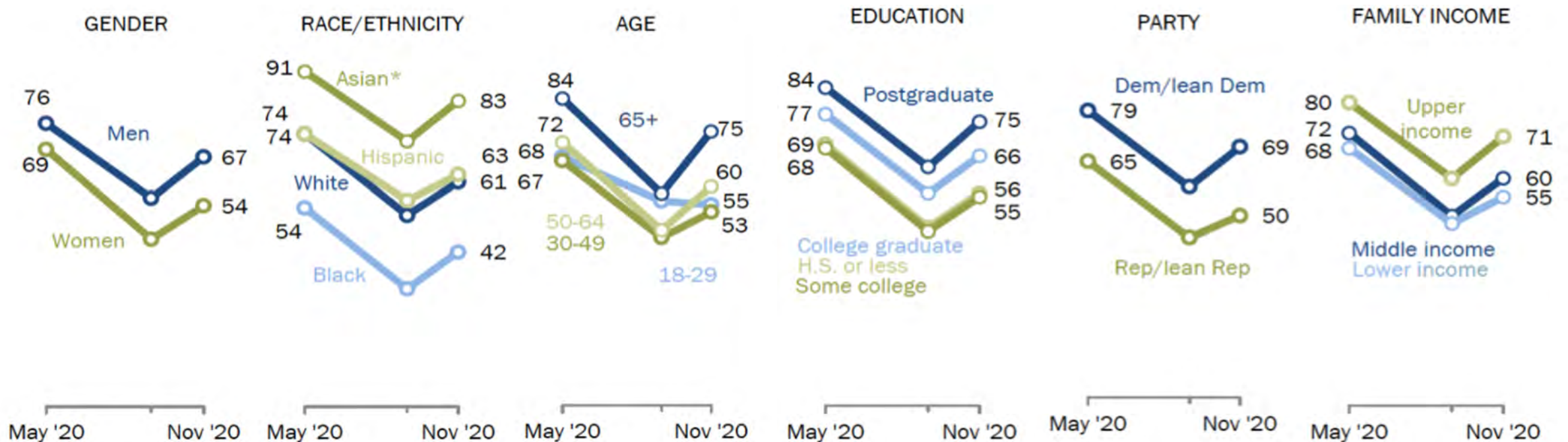
*This presentation was current on Feb 22<sup>nd</sup>, 2020. For the most up-to-date information on COVID-19 or COVID-19 vaccines please visit [CDC.gov](https://www.cdc.gov).*



# Importance of Communication, Transparency and Trust

Willingness to get a COVID-19 Vaccine is on the rise, but *still about two-in-ten are “pretty certain” they won’t get a vaccine*

% of US Adults who say they would definitely/probably get a vaccine for COVID-19 if one were available today



# Importance of Communication, Transparency and Trust

## Vaccine confidence starts with you



**Choose to get vaccinated yourself**



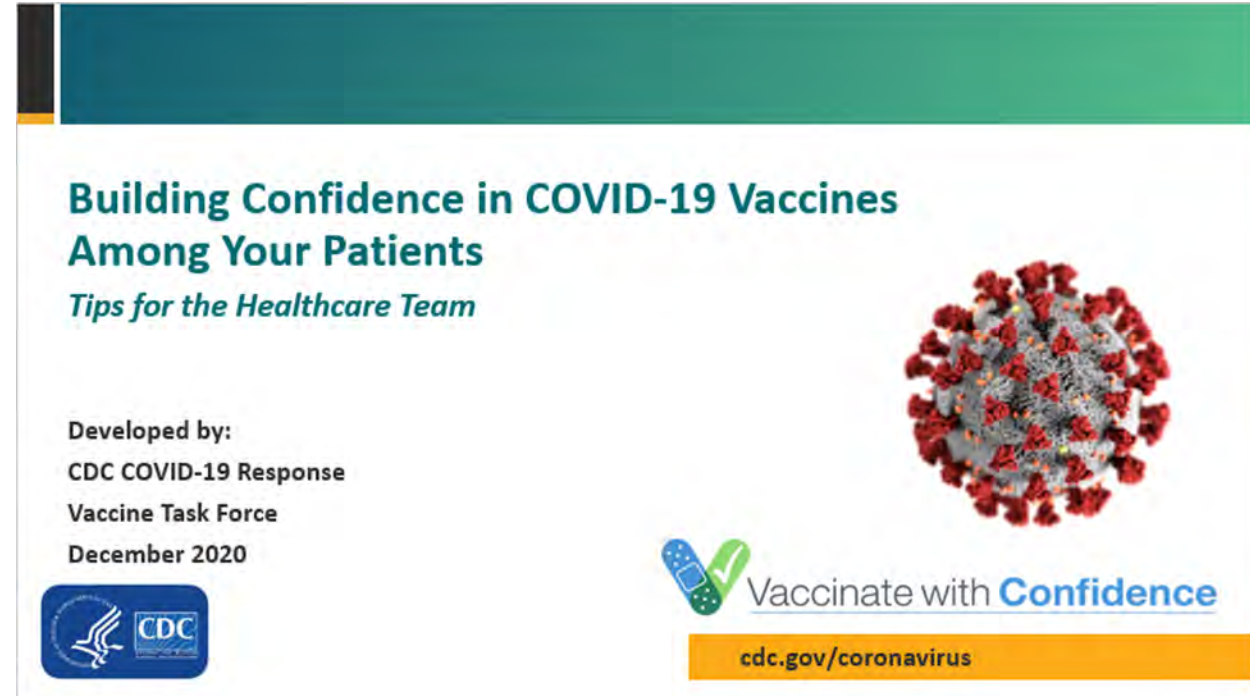
**Start conversations early**



**Engage in effective conversations**


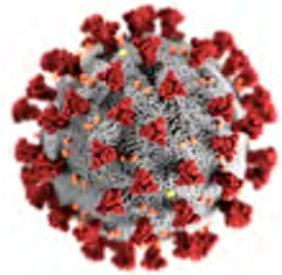


**Be prepared for questions**



**Building Confidence in COVID-19 Vaccines  
Among Your Patients**  
*Tips for the Healthcare Team*

Developed by:  
CDC COVID-19 Response  
Vaccine Task Force  
December 2020



Vaccinate with **Confidence**

[cdc.gov/coronavirus](https://cdc.gov/coronavirus)



## Active safety monitoring for COVID-19 vaccines

- **V-safe** is a new CDC smart-phone based monitoring program for COVID-19 vaccine safety
  - uses text messaging and web surveys to check-in with vaccine recipients after vaccination
  - participants can report side effects and health impact events after COVID-19 vaccination
  - includes active telephone follow-up by CDC for reports of significant health impact
  - captures information on pregnancy status and enables follow-up on pregnant women

