## **COVID-19 Vaccines:** What You Need to Know

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#### Matthew Sutter, MD MBA FACEP Allen County Health Commissioner

### COVID-19 Vaccines How will it work?

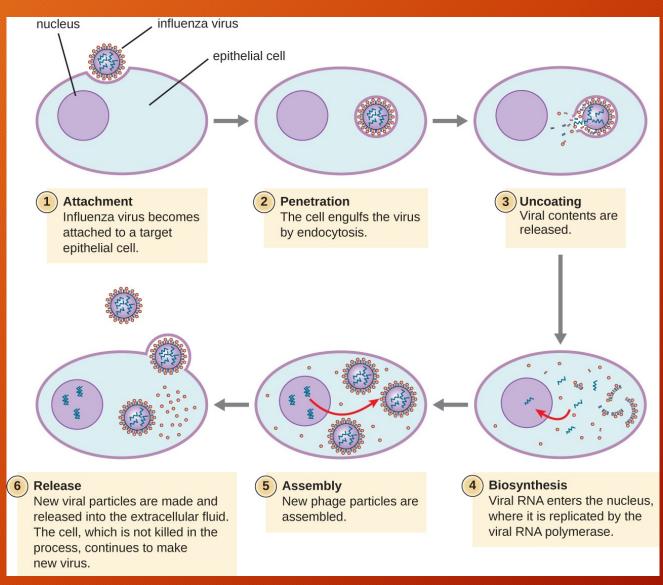


# VACCINES

- Viruses how they work
- Sars-CoV-2
- Immune system
- mRNA vaccines
- Vaccine development and testing
- Vaccine questions



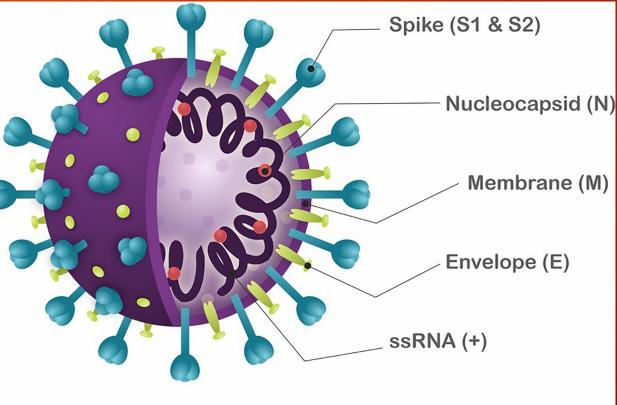
### HOW VIRUSES WORK





#### SARS-COV-2 VIRUS • Genetic material (RNA)

- 30,000 base pair chain
- Surrounded by a lipid (fat) envelope
- Several proteins on the surface
  - Spike
  - Membrane
  - Envelope



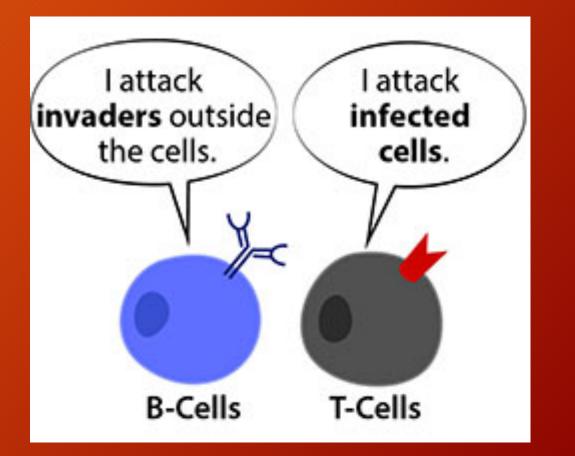
SARS-CoV-2



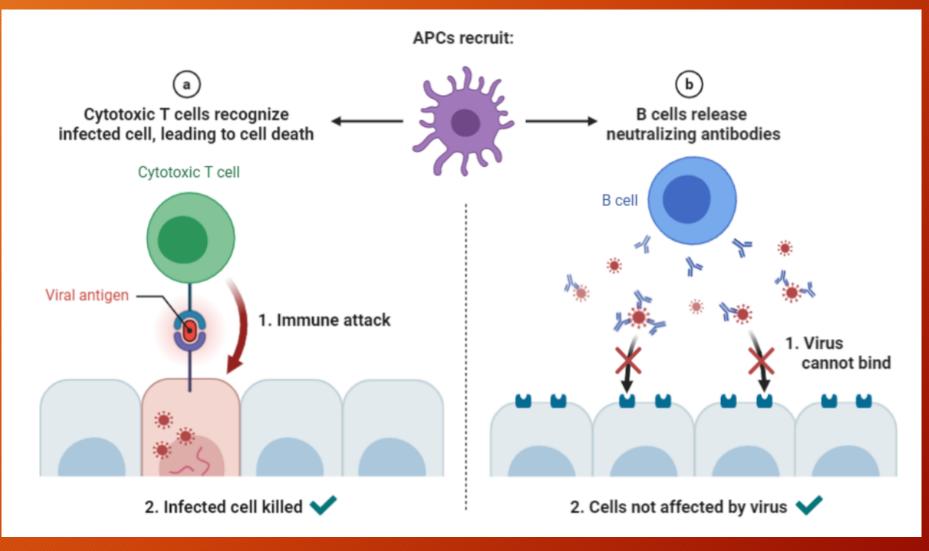
# IMMUNE SYSTEM

- It's complicated!
- B-cells
  - Make antibodies
- T-cells
  - Kill infected cells





#### **IMMUNE SYSTEM**



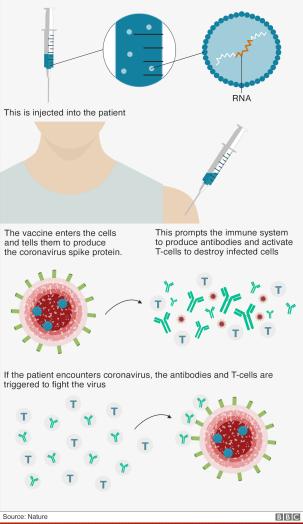


## **mRNA VACCINES**

- mRNA enters cells
- Makes only spike protein
- Immune system recognizes spike protein as foreign and attacks

#### How an RNA vaccine would work

Scientists take part of the virus' genetic code or RNA, that tells cells what to build, and coat them in a lipid so they can enter the body's cells





# VACCINE DEVELOPMENT AND TESTING



- Phase 2 trials Hundreds Effectiveness and dose
- Phase 3 trials Thousands Safety and efficacy
- Approval
- Post approval testing



# VACCINE QUESTIONS

Does it keep you from getting infected?

- Disease immunity vs sterilizing immunity
- Viral load and shedding
- How long does protection last?
- What are the adverse effects?
- Are there long-term effects?



#### Mindy Waldron Department Administrator

# COVID-19 VACCINATIONS How will it work?



# WHAT IS THE VACCINATION PLAN?

- Mass Vaccinations are not new to us
  - Hospitals conducting Phase 1a now (HCW's)
  - Health Departments will do essential personnel, other prioritized groups, and general public as directed

#### We will do them in one central location

- Daytime, Evening, and Weekend Hours
- By Appointment (online or by phone)
- For as long as it takes...
- We estimate we will start Mid-Jan



# WHAT IS THE VACCINATION PLAN?

- We will conduct them 5-6 days/week
- We will have approx. 50+ people working these clinics per day every day.
- Vaccines will be <u>FREE</u> (however, insurance information will be gathered)
- YOU WILL BRING YOUR PICTURE ID, INSURANCE CARD, and wear a mask.
- We will schedule your 2<sup>nd</sup> dose before you leave.



WHAT IS THE VACCINATION PLAN?
•We will work with other



partners once more is known on:

- Serving those who are homebound
- Serving those in confinement settings
- Vulnerable populations who may not be able to travel easily
- Going into settings or communities as needed

# WHAT SHOULD I EXPECT? • <u>Check-in:</u> (10 mins)

- Pre-Screen for eligibility (no allergies to vaccine ingredients, health info, etc.)
- Verify identity and age
- Verify demographics
- Health History (to ensure eligible and not ill)
- Complete consents (all electronic)
- Schedule 2<sup>nd</sup> dose appointment
- Answer any questions





# HOW LONG WILL IT TAKE?

- Vaccination: (<5 mins)</li>
  - Verify Name/DOB, etc.
  - Answer any questions
  - Conduct the vaccination





#### Observation: (15-30 mins)

- 15 mins (generally)
- Ensure no reactions
- Answer any questions



# HOW LONG WILL IT TAKE? • TOTAL:



- Approximately 25 mins (~40 mins for those who need a longer observation period)
- And then we will see you in approx. 28 days!
- We hope to be able to do 120-140 vaccinations per hour!
- How much vaccine we have to provide, though, is dependent upon how much vaccine is shipped to us each week.



# When will food service workers be able to receive the vaccine?

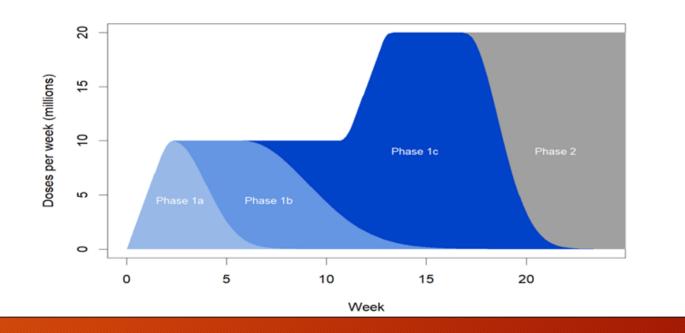
- It's not clear at this point. The current focus is vaccinating healthcare workers. The next groups will likely be older Americans and some frontline essential workers.
- Food service workers are currently classified as "other essential workers" and would likely be eligible in phase 1c. When that phase starts is based on how quickly vaccine can be delivered.
- It's also important to understand that each state makes its own decisions about how to distribute the vaccine, so Indiana may choose a different approach than the ACIP recommendations.





# When will food service workers be able to receive the vaccine?

Example of Phase 1 & Phase 2 COVID-19 vaccination roll-out



Another helpful resource is: <u>https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2020-</u> 12/slides-12-20/02-COVID-Dooling.pdf





# Can employers mandate the vaccine as an employment requirement?

 That is an employment law question and we would not know the answer to that question.





#### What percentage of Allen County residents need to be vaccinated in order for restrictions and the mask mandate to be lifted?

- It's not clear at this point. It will probably be related to the state and regional vaccination numbers rather than countyspecific numbers because many people work in Allen County but live in other counties.
- Also, while the Pfizer and Moderna vaccines provide outstanding protection against severe illness, it's not known whether vaccinated people can still get asymptomatic infections and spread to others.





#### Have the new vaccines been tested against the new strain/mutation found in Europe?

Not directly because the vaccines and the variant are too new. It's very likely the vaccines will still work well with that variant as there are several spots on the spike protein that antibodies can attach to. The variant only has minimal changes to the spike protein and even if it changes one target, there are multiple other targets on the spike protein.
More will likely be studied soon.





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#### Thank you for attending

For more business-focused COVID-19 resources, visit covid19.gfwinc.com



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