# COVID-19 & OUR SCHOOLS The Jacksonville North Pulaski School District

# COVID-19 Vaccine...Do I Really Need It?

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# COVID-19 BASICS

#### What is COVID-19?

- Coronavirus
  - Virus that causes infection in your nose, sinuses, or upper throat
- SARS-CoV-2
  - December 2019, outbreak of respiratory infection identified as SARS-CoV-2
  - US saw the same mysterious pneumonia-like illness
- COVID-19
  - **Disease** caused by SARS-CoV-2



## Symptoms of COVID-19

- Fever
- Coughing
- Shortness of breath
- Fatigue
- Chills
- Body Aches

- Headaches
- Sore throat
- Congestion/runny nose
- Nausea
- Diarrhea
- Loss of smell or taste

### What to do if you suspect exposure?

- Quarantine immediately to prevent spread
- Get tested at the right time
  - Antigen
    - Positive tests are very specific, danger of more false negatives
    - Can get results in under an hour
  - PCR
    - More reliable because looks for the virus's genetic material, highly specific
    - Can take up to a week for results
- Treat symptoms, if needed

# COVID-19 VARIANTS

#### **COVID-19 Variants**

- Several variants exist
  - VOI (interest) being monitored (6)
  - VOC (concern) being closely monitored (4)
  - VOHC (high consequence) currently none that rise to the level of HC

#### VOC's

- Alpha United Kingdom
- Beta South Africa
- DELTA India
- Gamma Japan/Brazil



# COVID-19 VACCINE

### Three Vaccines Available Today

- Pfizer BioNTech
  - 2 Doses
  - 21 days apart
  - Ages  $\geq$  12 years
  - 95% effective

- Moderna
  - 2 doses
  - 28 days apart
  - Ages  $\geq$  18 years
  - 94% effective

- Johnson & Johnson
  - 1 dose
  - Ages  $\geq$  18 years
  - 94% effective

All three vaccines have been approved by the FDA under a special designation called an Emergency Use Authorization ONLY.

They are not FDA approved yet.

#### Vaccine Effectiveness

#### Pfizer

- 95.3% effective in preventing severe disease or death (Alpha/Beta)
- 88% effective against symptomatic disease/96% effective against hospitalization (DELTA)

#### Moderna

- 94.1% effective in preventing symptomatic disease
- Shows some effectiveness but more research is needed on Delta variant effectiveness

AMDP

#### Johnson & Johnson

- 86% effective in preventing severe disease or death (Alpha)
- Shows some effectiveness but waiting for final review of data for Deltavariant effectiveness

#### What is in the vaccines?

#### **Pfizer and Moderna Vaccines**

- mRNA vaccines
- Provide the body with instructions/code to fight COVID-19
- Helps the body to remember and manufacture protection against the "spike protein" on the virus
- If the body sees the actual virus, it has the "instructions to protect itself against the disease
- Does not have any live COVID-19 in the vaccine, only only a piece of the "spike protein"

# What are the <u>side effects</u> of the vaccine?

- First Dose
  - Soreness at injection site
  - Fever
  - Body aches
  - Chills
  - Fatigue

Second Dose

Side effects may be more pronounced because of immune response

- Soreness at injection site
- Fever
- Body aches
- Chills
- Fatigue

#### What is in the vaccines?

#### **Johnson & Johnson Vaccines**

- Typical vaccine
- Made with a piece of DNA from the COVID-19 spike protein and combined with adenovirus
- Adenovirus carries the instructions to your immune system
- Helps the immune system to recognize the virus and develop antibodies for future infection
- Does not have any live COVID-19 in the vaccine, only only a piece of the "spike protein"

# What are the <u>side effects</u> of the vaccine?

- Single Dose
  - Soreness at injection site
  - Pain/Redness/Swelling at injection site
  - Fever
  - Headache
  - Body aches
  - Chills
  - Fatigue
  - Muscle pain
  - Nausea



# Who CDC recommends should not get the vaccine?

- If you have a severe allergic reaction to a COVID-19 vaccine
- If you have a non-severe allergic reaction to a COVID-19 vaccine
- If you have had an allergic reaction to other types of vaccines
- If you have severe allergies not related to vaccines
- If you have had an allergic reaction to polyethylene glycol (PEG) or polysorbate

NOTE\*\* There are safeguards in place when you take your vaccine. If you have concerns, talk to your physician or pharmacist.

## What we do not know yet?

- Safety for children under the published ages.
- Need for a booster shot at a later time.
- Timing for a booster shot at a later time.
- Effectiveness against new strains.
- Reinfection rates and timeframe for those that have recovered



### Vaccines Under Development

- In clinical trials, not yet approved for emergency use in the U.S.
  - AstraZeneca COVID-19 vaccine
  - Janssen COVID-19 vaccine
  - Novavax COVID-19 vaccine



# Common Concerns About the Vaccine

### Common Concerns – Vaccine Hesitancy

- The vaccine was developed too quickly.
- POC were not involved in the development or research of the vaccine.
- Mistrust of the government.
- Resistance to "being told what to do"
- Fear of getting or being exposed to COVID-19 from the vaccine.
- Valid fear of past issues with the medical community.
- Thought that they might get COVID-19 regardless.



# What is Arkansas Being Affected Disproportionately

- More illness
- More severe illness
- More hospitalizations
- More exacerbations of other chronic diseases

- Lack of diligence with mask wearing
- Low vaccination rates
- Lower series completion rates
- Need to work

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#### Resources

- Arkansas Department of Health
  - https://www.healthy.arkansas.gov/
- Centers for Disease Control and Prevention
  - https://www.cdc.gov/coronavirus/2019-ncov/index.html
- World Health Organization
  - https://www.who.int/emergencies/diseases/novel-coronavirus-2019



# Questions?