# How was the COVID-19 vaccine developed, authorized and manufactured

Vaccines have saved the lives of thousands of Virginians through the years. Now, scientists and researchers have worked to bring us a new vaccine to help in the fight against COVID-19.



**EVERY vaccine**, no matter what it's for, goes through multiple steps. **For the COVID-19 vaccine**, **NO STEPS were skipped.** The financial part of the process was sped up to help us fight this virus.



## It Starts with Lab Testing

Scientists and researchers work on formulas that will become a vaccine. Before it's ever given to people, it goes through extensive lab testing.



### **Next Stop is Clinical Trials**

Clinical trials test safety, dosage and effectiveness. Vaccines have to pass three phases in this step before they can be offered to the general public. The FDA\* sets the rules for this step.



# Last, Authorization and Production

The FDA reviews the data from the trials and gives the go ahead for distribution. The vaccine is made in large quantities for distribution.

\*Who is the FDA? What does it do?

A non-political group, the Food and Drug Administration (FDA) uses oversight and regulation to ensure vaccine quality, safety and effectiveness — helping to facilitate the timely development of COVID-19 vaccines.

A vaccine only gets FDA authorization if it tests both SAFE and EFFECTIVE

#### **Clinical Trials**

Volunteers around the country offer to get the vaccine so scientists and medical professionals can see how they are affected.

#### **PHASE 1: Safety**

- Evaluate safety and identify any common reactions
- 20 100 volunteers

#### **PHASE 2: Effectiveness**

- Gather more information on safety, efficacy, dosage and reactions
- Several hundreds of volunteers

#### **PHASE 3: Safety + Effectiveness**

- Compare reactions of people who got the vaccine versus those who have not
- Thousands of volunteers



For more information about how vaccines are created, tested and distributed, visit **vdh.virginia.gov/covid-19-vaccine** or call 877-ASK-VDH3.

