

# Covid-19 Vaccine

## Adverse Event Dashboard

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3/23/22



# Vaccine Adverse Event Reporting System



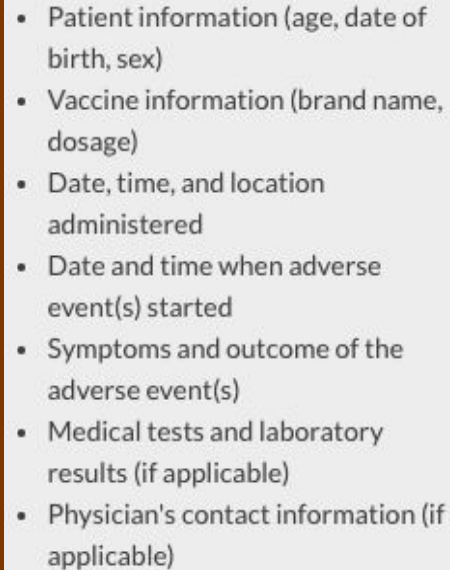
## Self-Reported Data

Passive surveillance system monitored by CDC and FDA



## 3 Tables per Year

Event data, Vaccine data, Symptom data (joined by VAERS\_ID)

- 
- A brown clipboard with a silver clip at the top, holding a white sheet of paper with a list of data points.
- Patient information (age, date of birth, sex)
  - Vaccine information (brand name, dosage)
  - Date, time, and location administered
  - Date and time when adverse event(s) started
  - Symptoms and outcome of the adverse event(s)
  - Medical tests and laboratory results (if applicable)
  - Physician's contact information (if applicable)

Tried using CDC Wonder...

CDC WONDER

FAQsHelpContact UsWONDER Search

The Vaccine Adverse Event Reporting System (VAERS) Request

Request FormResultsMapChartReportAbout

[Dataset Documentation](#)[Other Data Access](#)[Data Use Restrictions](#)[How to Use WONDER](#)

SaveReset

Messages:

► This request produces 97,983 rows, but 75,000 is the maximum allowed. Simplify this request, or send a series of smaller ones. For example, group results by race but limit each query to a single race. Send a request for each race group and then merge the results. Please contact [user support](#) for further assistance.

*Make all desired selections and then click any **Send** button one time to send your request.*

1. Organize table layout:

Group Results By

Symptoms

And By

Vaccine Manufacturer

And By

Vaccine Dose

And By

None

And By

None

Notes:

- Data contains VAERS reports processed as of **03/11/2022**.
- Must group by VAERS ID when selecting any of the Optional Measures.
- When grouping by **VAERS ID**, results are initially displayed with Events Reported, Percent, and totals not shown.

Optional Measures

(Check box to include in results.)

☐ Adverse Event Description

☐ Lab Data

☐ Current Illness

☐ Adverse Events After Prior Vaccinations

☐ Medications At Time Of Vaccination

☐ History/Allergies

Title

2. Select symptoms:

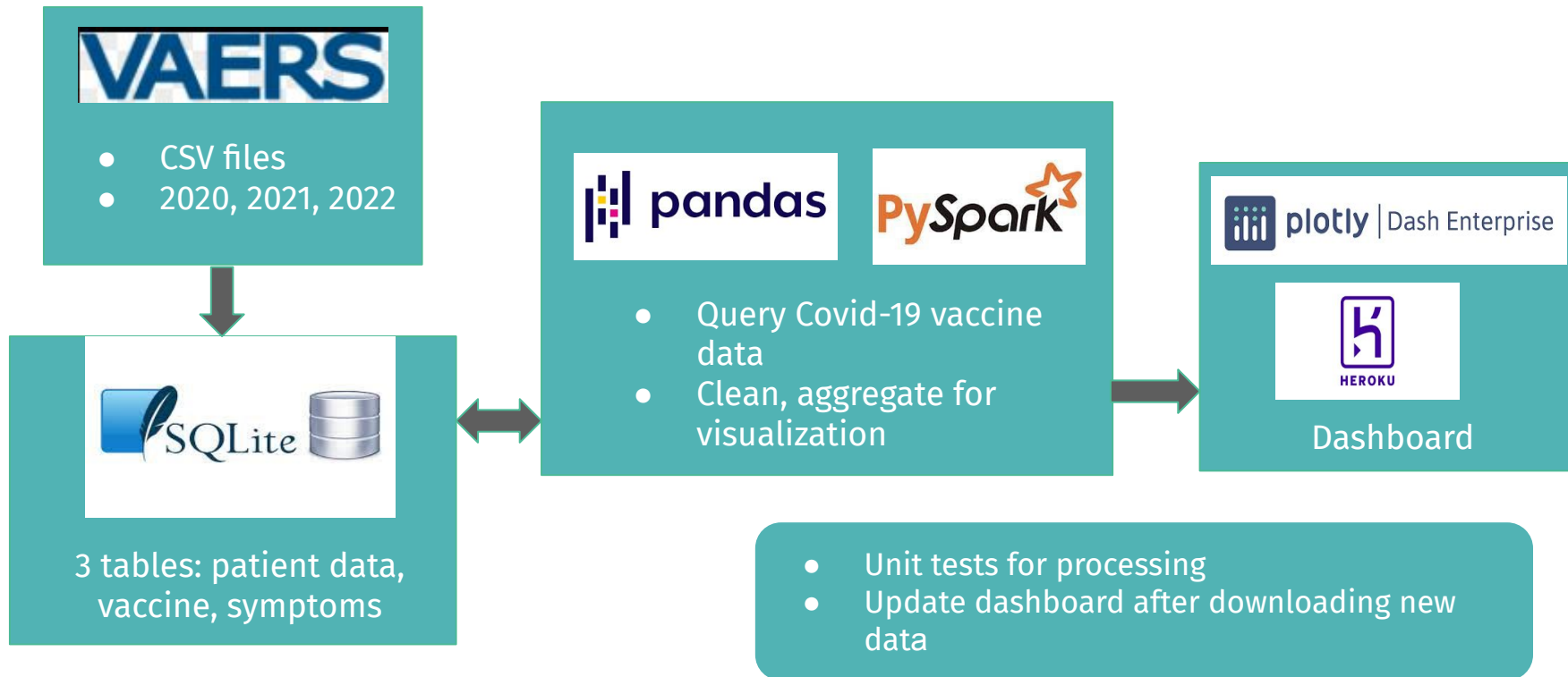
SendHelp

# GOAL

- Pipeline for interactive dashboard
- Visualize adverse events reported for Covid-19 vaccines
- Conveniently updated



# PIPELINE





<https://covid-vax-vaers.herokuapp.com/>

# INSIGHTS

- Most adverse events reported for Dose 1: Moderna
- Most adverse events reported for Dose 2: Pfizer
- Most frequently administered location: “Private” (vs Pharmacy, Nursing Home, Work, etc.)
- Similar top frequency symptoms for 1st dose:
  - Pfizer: 1) headache, 2) pyrexia (fever), 3) pain
  - Moderna: 1) headache, 2) pain, 3) pyrexia
  - Janssen: 1) headache, 2) pyrexia, 3) pain



**Caveats:** don't know in proportion to how many people received, severity of symptoms, unverified data, symptoms from free text extracted by VAERS

# FUTURE WORK



## EXPLORE MORE DATA

01

Medications, medical conditions using NLP

## OTHER ANALYSES

02

Trending line graph,  
choropleth map,  
comparison to other  
vaccination data





**Thank you!**