

Vaccine Indicators and Data Visualization Best Practices

Vaccine Indicators





Vaccine Indicators

1. Phase: Current phase of vaccination, including who is eligible to be vaccinated now
2. Supply: Percentage of population that could be fully vaccinated with doses distributed
3. Supply: Percentage of doses administered
4. Coverage: Percentage of population partially vaccinated
5. Coverage: Percentage of population fully vaccinated

Full vaccine indicator report available here:

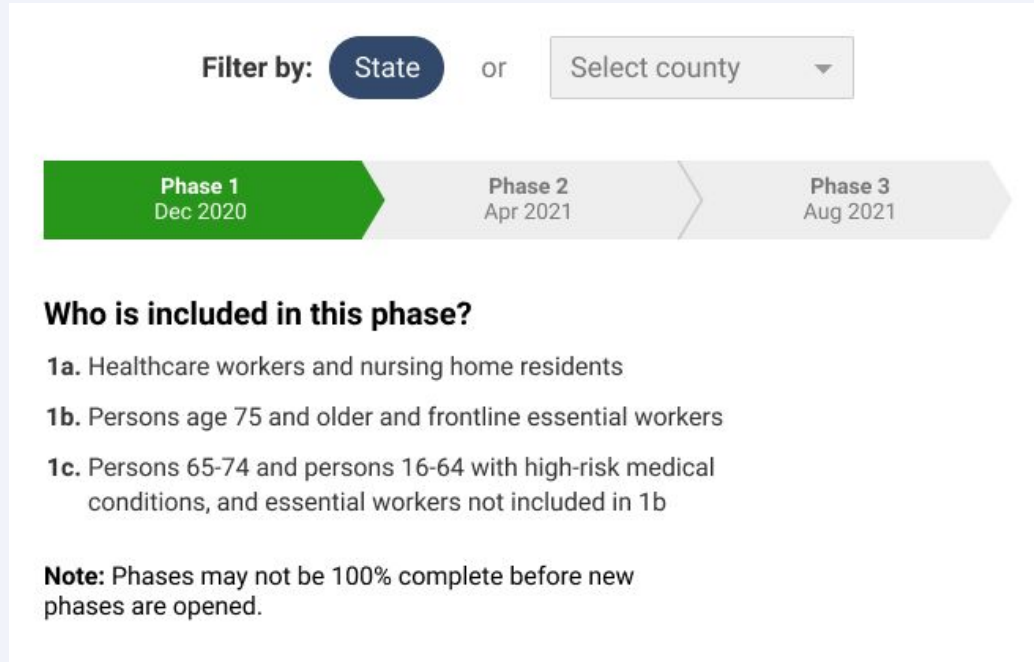
<https://preventepidemics.org/covid19/indicators/>

Visualization Best Practices



Indicator 1

Current phase of vaccination, including who is eligible to be vaccinated now



Filter by: **State** or

Phase 1
Dec 2020

Phase 2
Apr 2021

Phase 3
Aug 2021

Who is included in this phase?

1a. Healthcare workers and nursing home residents

1b. Persons age 75 and older and frontline essential workers

1c. Persons 65-74 and persons 16-64 with high-risk medical conditions, and essential workers not included in 1b

Note: Phases may not be 100% complete before new phases are opened.

Recommendations

- Keep it simple and link to detailed eligibility descriptions
- Indicate the timing for future phases, if possible
- If phase varies by county, add a map
- Provide visualization and explanatory text in multiple languages
- Provide links to how and where those eligible can be vaccinated

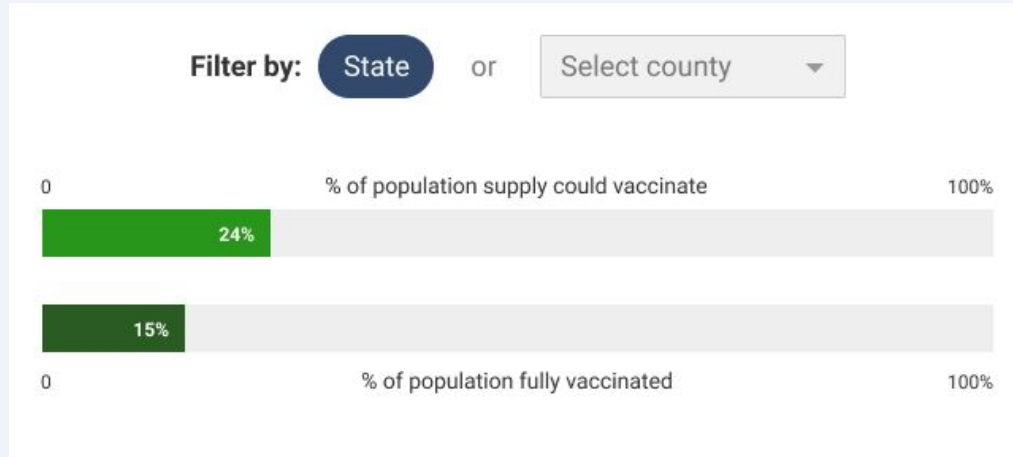
Examples and Resources

- [Arizona \(map\)](#)
- [Arkansas \(detailed flyer on website\)](#)

**ACIP guidelines shown as an example; state specific phases should be shown.*

Indicator 2

Percentage of population that could be fully vaccinated with doses distributed



Recommendations

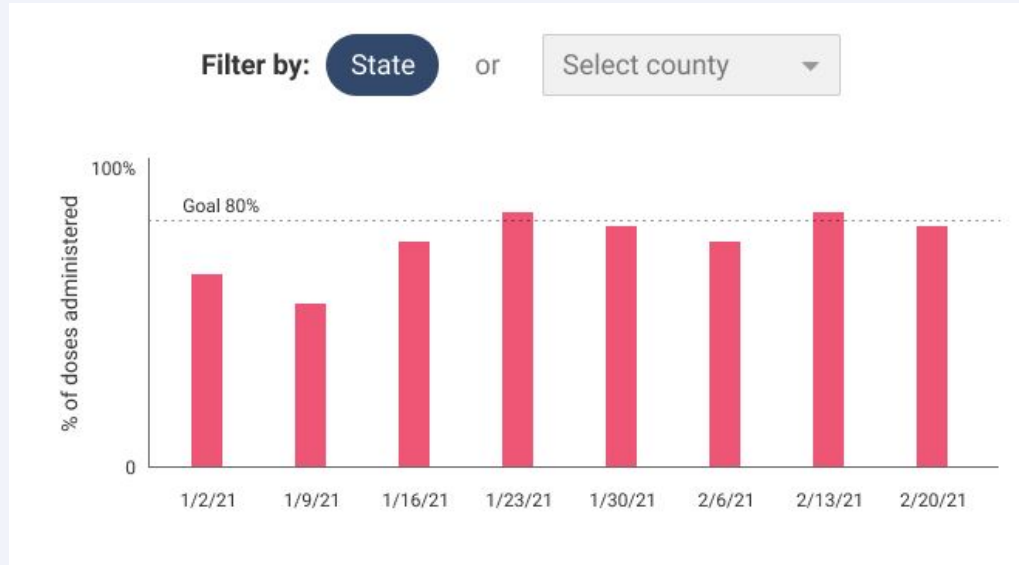
- Use a simple graphic for a simple message: this indicator tells us how much vaccine supply we have compared to how much we need
- As shown here, this indicator can also be shown in combination with the percentage of the population fully vaccinated (indicator #6)
- Update weekly

Examples and Resources

- [Massachusetts \(map\)](#)

Indicator 3

Percentage of doses administered*



**May only include doses distributed via public health*

Recommendations

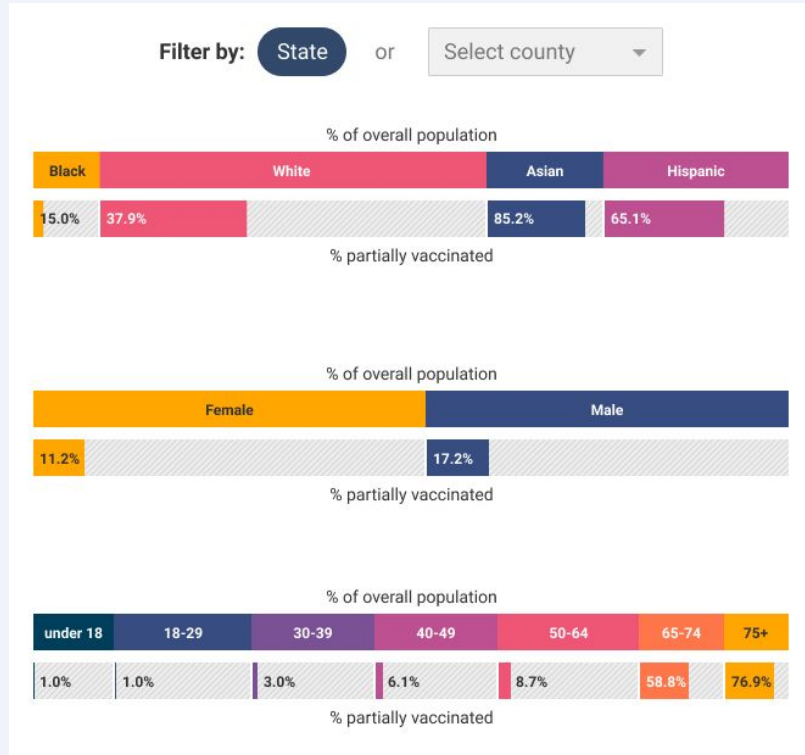
- Indicate a goal for timely distribution of doses on the visualization
- Show data week-by-week to monitor for improvements over time
 - Could also be shown daily and monthly
- Enable user to filter by provider to track where support may be needed to get doses off of shelves and into arms

Examples and Resources

- [Minnesota \(administration data\)](#)

Indicator 4

Percentage of population partially vaccinated*



*Received one dose of a two-dose vaccine regimen

Recommendations

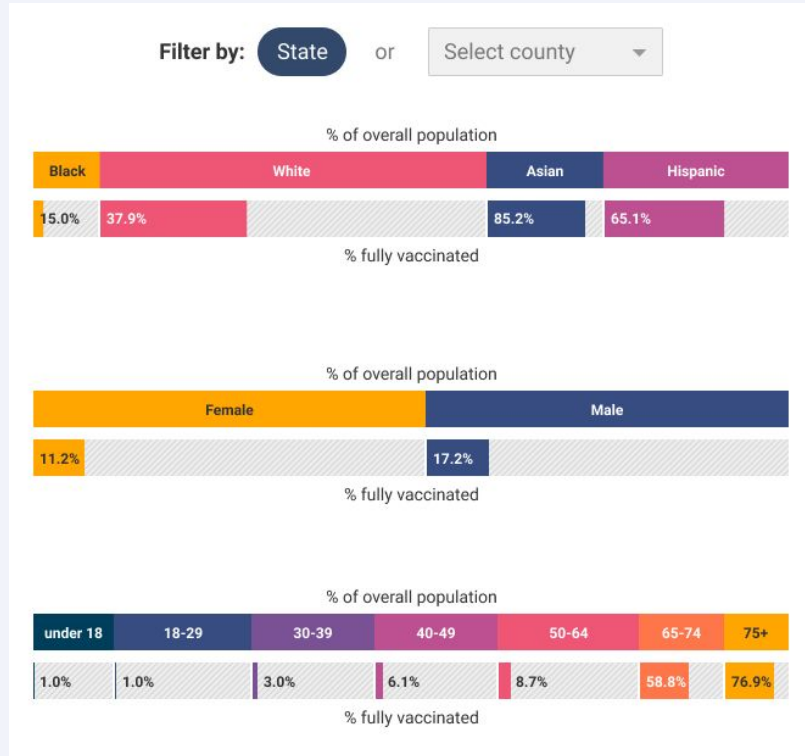
- Use a map to show variation in coverage by location
- In addition to cumulative visuals like these, show trends over time (see “[Visualizing Equity](#)”)

Examples and Resources

- [NYC dashboard](#)
- [North Dakota \(time trends by age\)](#)

Indicator 5

Percentage of population fully vaccinated*



*Completed vaccine regimen (e.g., two doses of mRNA vaccine or single dose of Janssen vaccine)

Recommendations

- Enable users to filter data by location (e.g., view coverage in a single county)
- Note where data are missing or unavailable
- Make data (counts and percentages) available for download

Examples and Resources

- [Washington \(map and vaccine data integrated into COVID-19 dashboard\)](#)
- [North Carolina \(county-level\)](#)

Visualizing Equity



IN DETAIL

Visualizing Equity

Critical to:

- Increase accountability and transparency
- Inform decision-making to optimize equitable distribution strategies

Visualizing Equity

Vaccination coverage by race and ethnicity over time

Filter by:

State

or

Select county

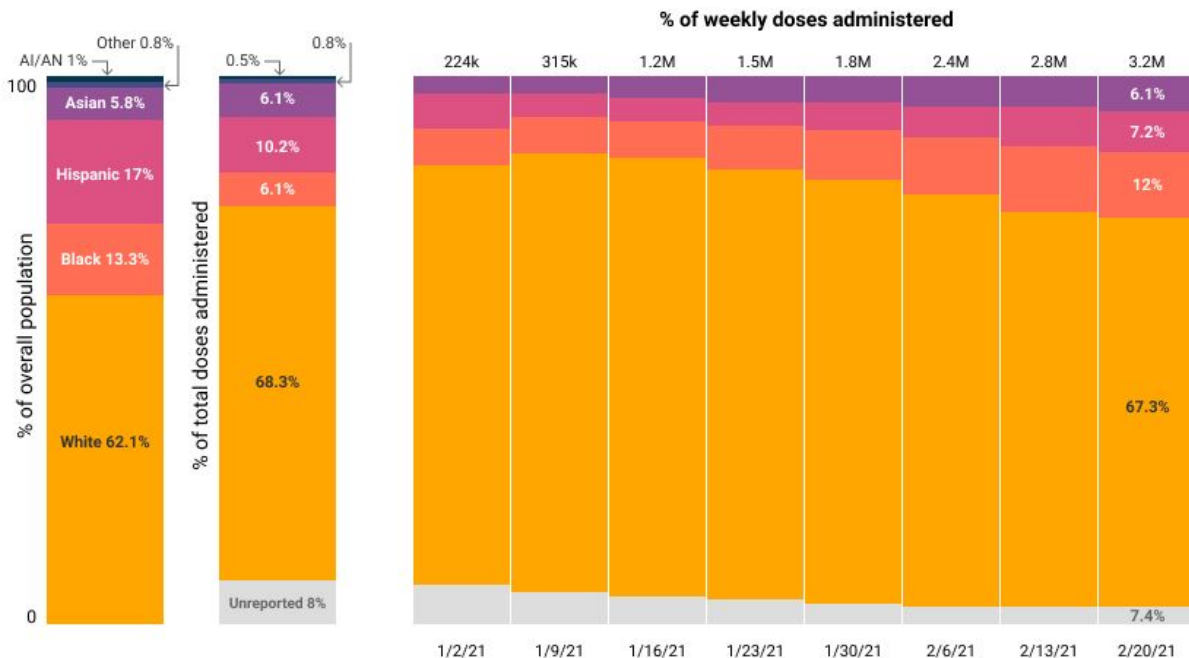
View by:

Age

Sex

Race/Ethnicity

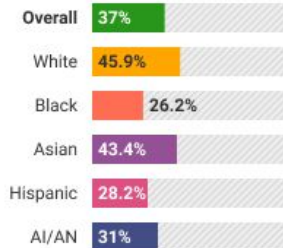
Urban/Rural



15.6M

Vaccines administered

% of population fully vaccinated





Visualizing Equity

Recommendations

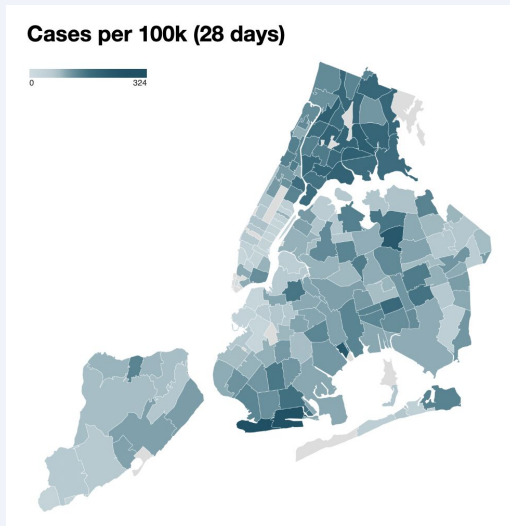
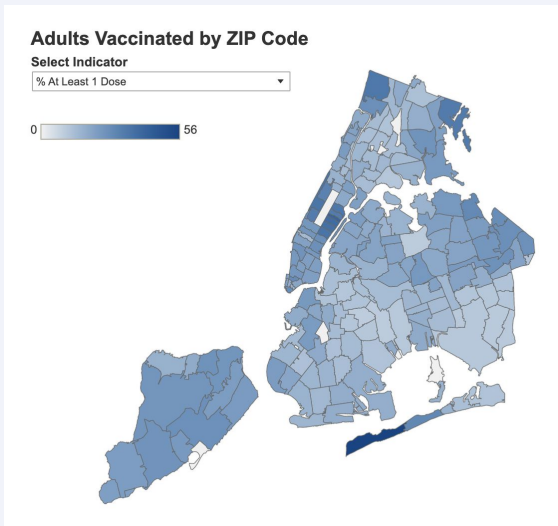
- Show proportion of total or eligible population compared to proportion of vaccinated population
- Week-to-week updates are essential to monitor progress
- Can also use line graph to show trends for multiple groups

Examples and Resources

- [Washington \(stratification overall and among age 65+\)](#)
- [North Carolina \(demographic data over time\)](#)
- [Minnesota \(race and ethnicity by age\)](#)

Visualizing Equity

Mapping coverage and comparing with other key equity indices



Recommendations

- Consider presenting with other ‘equity maps’ most relevant to the context, for example:
 - Access to primary care provider, hospitals or pharmacies
 - Distance from vaccination provider
 - Social vulnerability indices

Examples and Resources

- [NYC maps](#)
- [Social vulnerability index \(CDC\)](#)
- [Surgo Ventures Vaccine Coverage Index](#)