

Vaccine Hesitancy Framework

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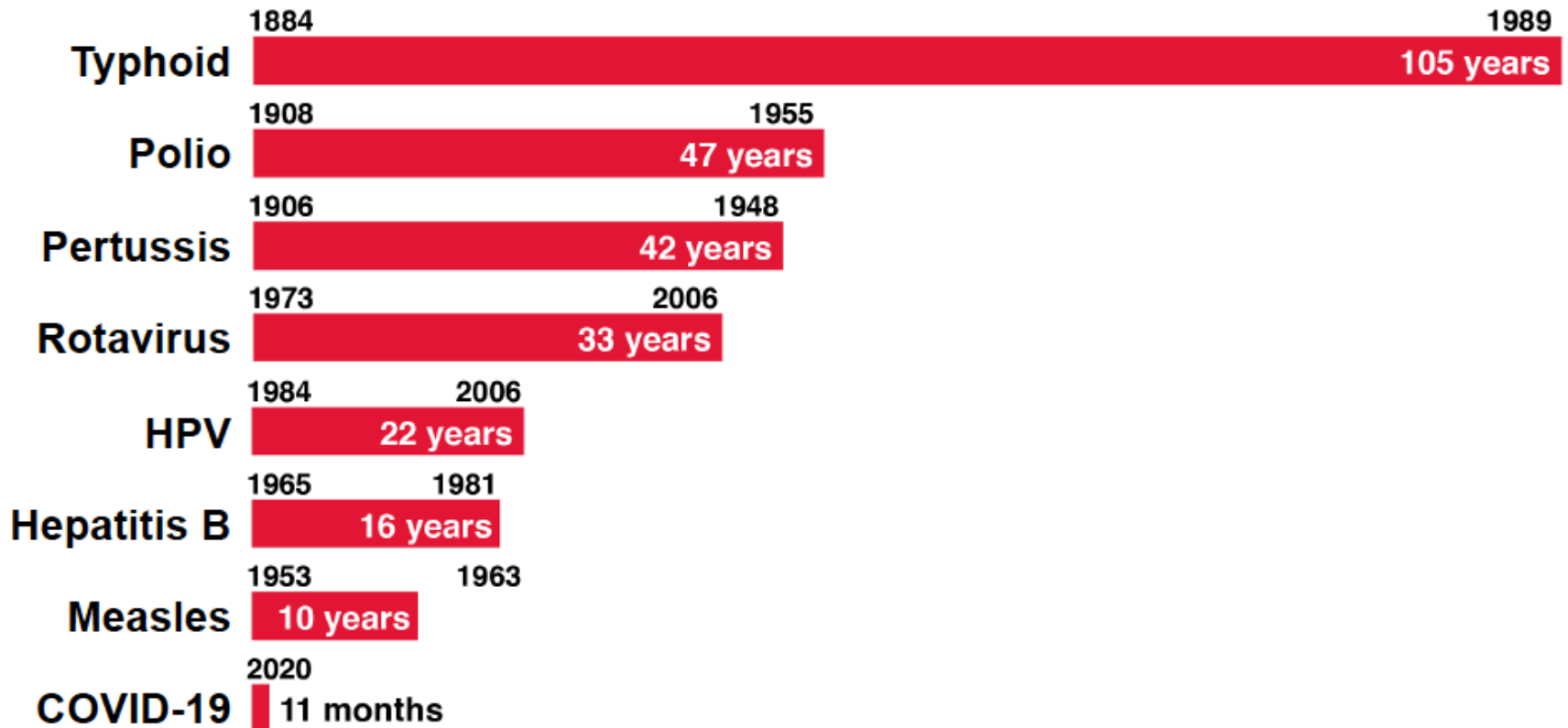
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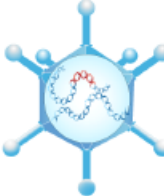


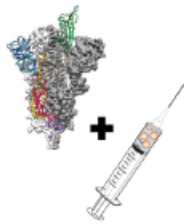
Time to Develop a Vaccine



Duration between discovery of microbiologic cause of selected infectious diseases and development of a vaccine. Adapted from AVAC

Slide from an NIH update given by Dr. Lawrence Tabak, Principal Deputy Director, NIH 1/29/21

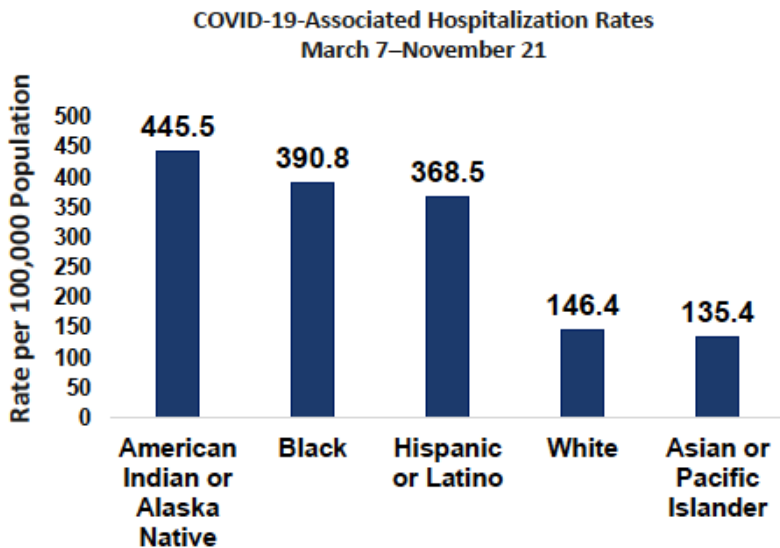
COVID-19 Vaccines in OWS Development

 	<p>mRNA</p> <p>mRNA</p>		<ul style="list-style-type: none"> ■ mRNA: Rapid manufacturing facilitating efficient move to clinic, highly immunogenic ■ USA FDA Emergency Use Authorization
 	<p>Adenovirus vector</p> <p>Adenovirus vector</p>		<ul style="list-style-type: none"> ■ Adenovirus: Rapid manufacturing facilitating efficient move to clinic, vaccine using this platform is approved in Europe
 	<p>Recombinant protein + adjuvant</p> <p>Recombinant protein + adjuvant</p>		<ul style="list-style-type: none"> ■ Adjuvanted recombinant protein: not as fast to manufacture but scalable, several approved vaccines use this approach

Approved by FDA

Slide from an NIH update given by Dr. Lawrence Tabak, Principal Deputy Director, NIH 1/29/21

The COVID-19 Pandemic in the U.S. Disproportionately Affects Communities of Color

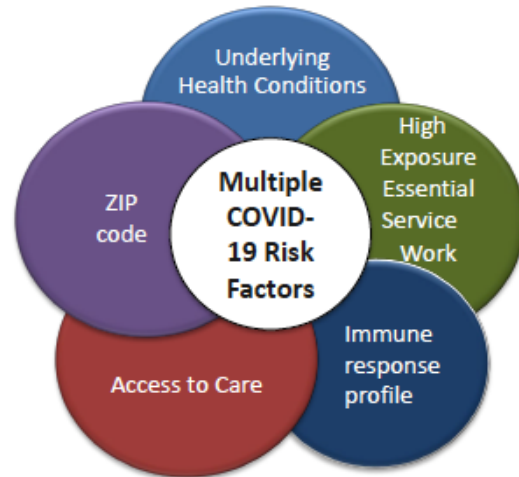


Among some racial and ethnic minority groups, evidence points to higher rates of hospitalization or death from COVID-19 than among non-Hispanic white persons.

COVID-NET

Interplay of clinical characteristics and social determinants of health puts minority communities at high risk for COVID-19 complications

- Heart Disease
- Hypertension
- Diabetes
- Lung Disease



CDC, National Center for Health Statistics (NCHS), National Vital Statistics System, 2019; Yan R, et al., *Science*, 2020.

COVID-19 Vaccination in MA: Eligibility Status

Phase 1

All phase 1 priority groups

Now eligible

Phase 2

1 Individuals age 75+

Now eligible

2 Individuals age 65+ and individuals with 2+ certain medical conditions

Now eligible

3 K-12 educators, K-12 school staff, and child care workers

Now eligible

4 Individuals age 60+ and workers in certain sectors (including transit, grocery, utility, food and agriculture, sanitation, public works, and public health workers)

Now eligible

5 Individuals age 55+ and individuals with 1 certain medical condition

Now eligible

Phase 3

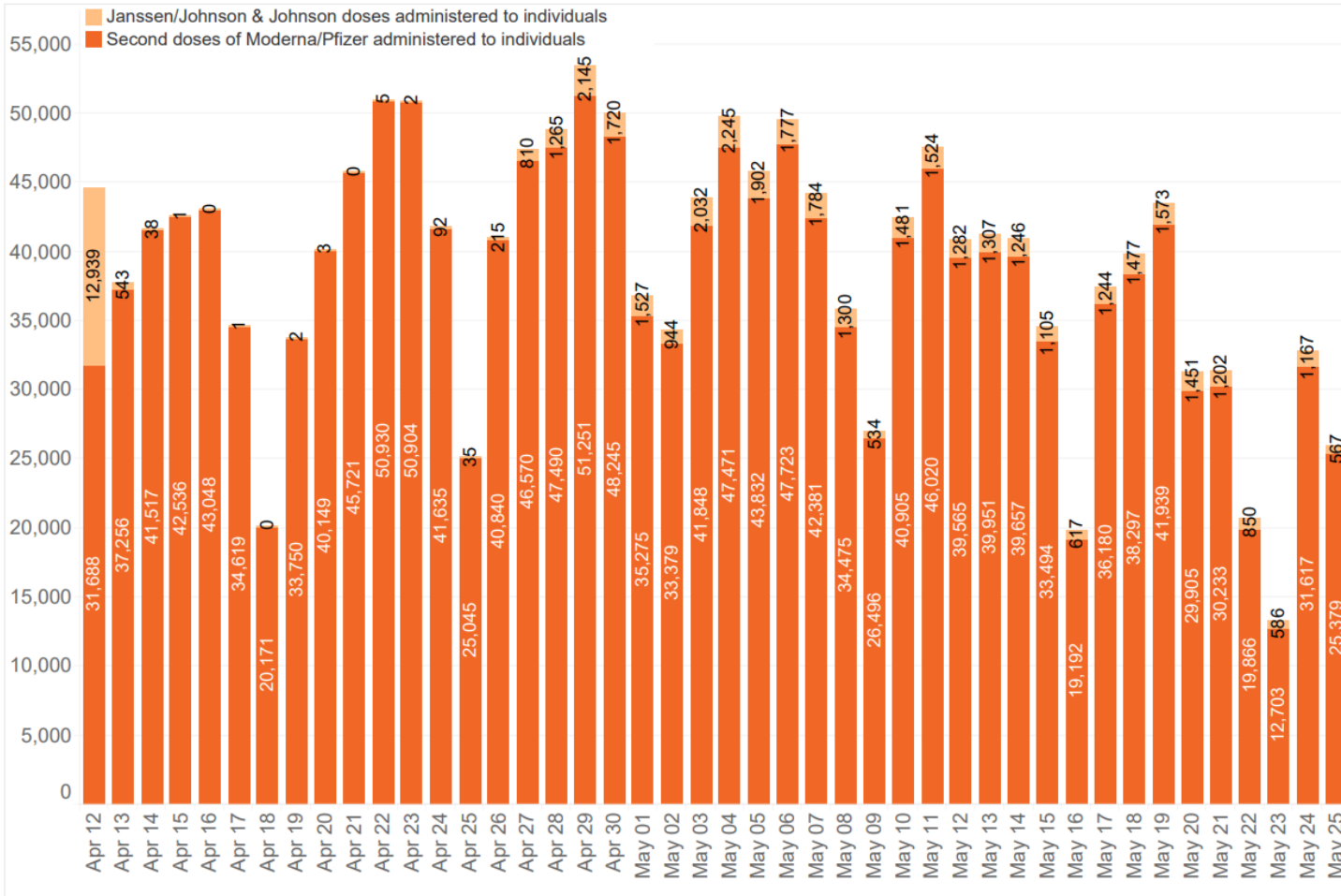
1 Individuals age 12+

Now eligible

Total Individuals Fully Vaccinated

Data as of May 25, 2021

Individuals fully vaccinated and reported in the last 45 days



Vaccine summary

199,038

Individuals becoming fully vaccinated and reported in the last 7 days

3,520,075

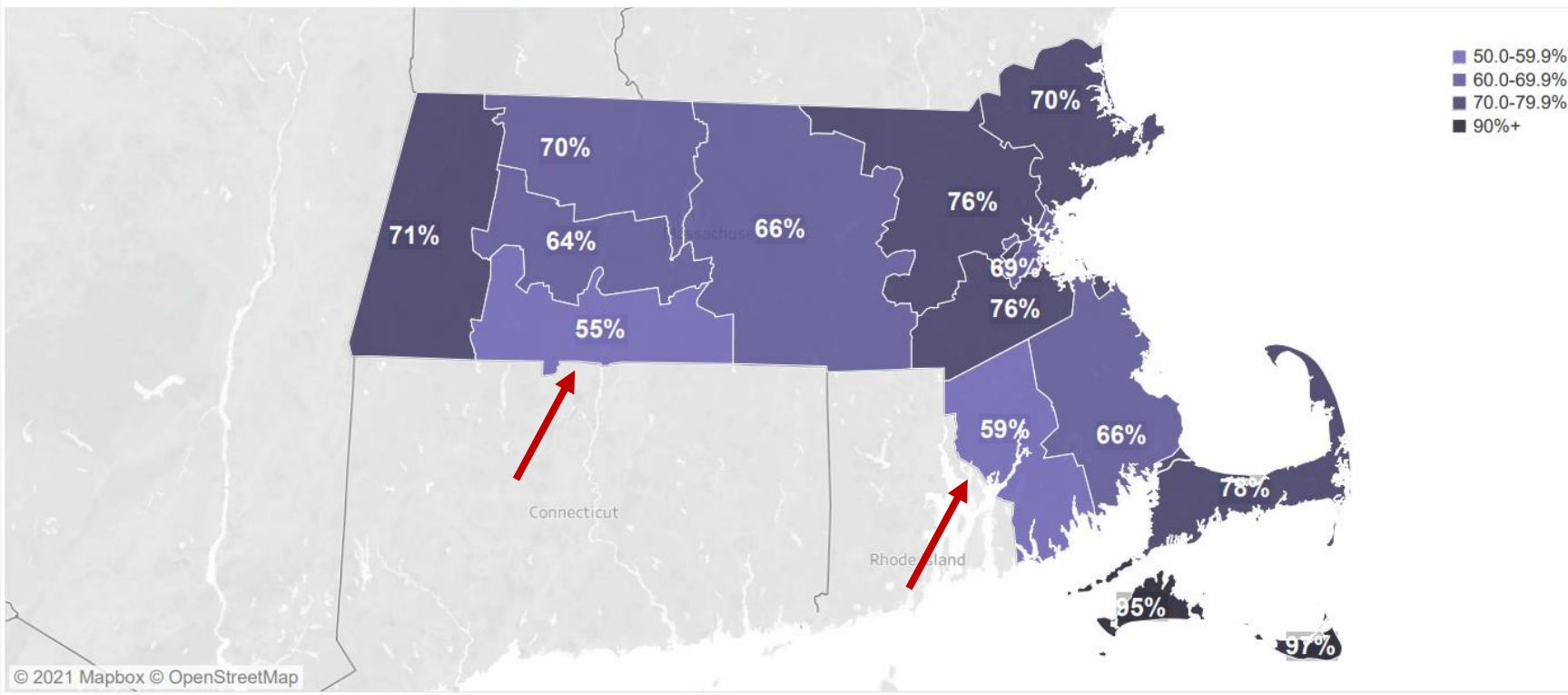
Total individuals fully vaccinated and reported

NOTE: Data from MIIS (see "definitions"). Data reflect individuals fully vaccinated (see "definitions"), including with Janssen/Johnson & Johnson beginning on 3/5/21; this is measured as the total number of 2nd doses of Moderna and Pfizer administered and reported plus the total number of Janssen/Johnson & Johnson doses administered and reported. Some individuals may receive a first or second dose of Moderna or Pfizer from a non-reporting provider and would not be included as fully vaccinated. Dates reflect the date doses were administered.

Cumulative Percentage of Eligible Individuals (12+) with at Least One Dose Administered by County of Resident Address

Data as of May 25, 2021

Percentage of Eligible Individuals (12+) with at Least One Dose Administered

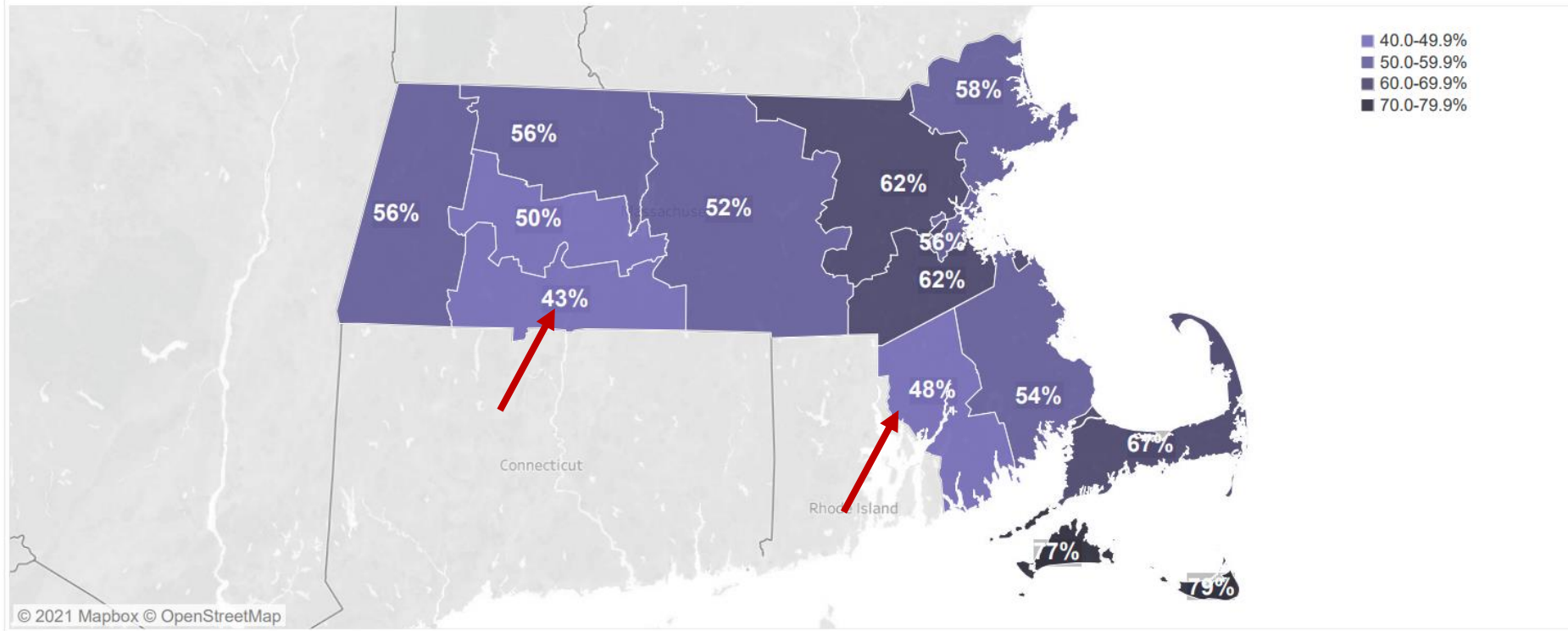


NOTE: Data from MIIS (see "definitions"). Data reflect doses administered and reported (see "definitions"), including Janssen/Johnson & Johnson beginning on 3/5/21. An individual is counted as having at least 1 dose if they have received one or more doses of vaccine. This is measured as the total number of 1st doses of Moderna and Pfizer vaccine administered and reported, plus the total number of Janssen/Johnson & Johnson doses administered and reported. Doses without address records are not included in this view. These proportions use Donahue population estimates from 2019. Colors may be reindexed as data evolve.

Cumulative Percentage of Eligible Individuals (12+) who are Fully Vaccinated by County of Resident Address

Data as of May 25, 2021

Percentage of Eligible Individuals (12+) Fully Vaccinated

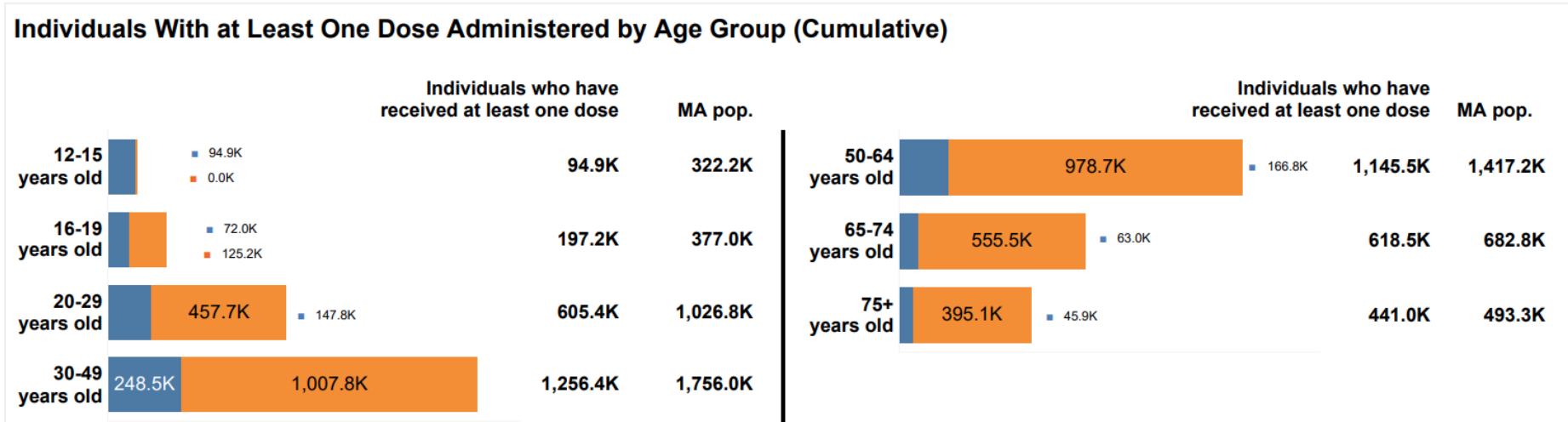


NOTE: Data from MIIS (see "definitions"). Data reflect doses administered and reported (see "definitions"), including Janssen/Johnson & Johnson beginning on 3/5/21. An individual is counted as fully vaccinated if they have received the 2nd dose of Moderna or Pfizer or have received a dose of Janssen/Johnson & Johnson vaccine. Doses without address records are not included in this view. Some individuals may receive a first or second dose of Moderna or Pfizer from a non-reporting provider and would not be included as fully vaccinated. These proportions use Donahue population estimates from 2019. Colors may be reindexed as data evolve.

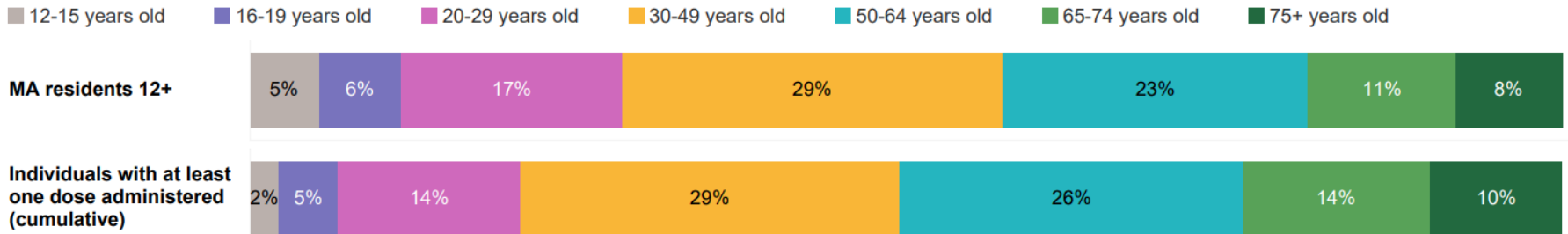
Cumulative Individuals With at Least One Vaccine Dose Administered by Age Group

Data as of May 25, 2021

■ Individuals who are partially vaccinated ■ Individuals who are fully vaccinated



Distribution of Individuals by Age Group, Comparing General Population Numbers to Those With at Least One Dose



OPINION

Meet the Four Kinds of People Holding Us Back From Full Vaccination

By Sema Sgaier

May 18, 2021

In Massachusetts...

8% are Watchful. They're waiting to see what happens



3% are Cost-Anxious. They want the vaccine but can't afford the time or cost.



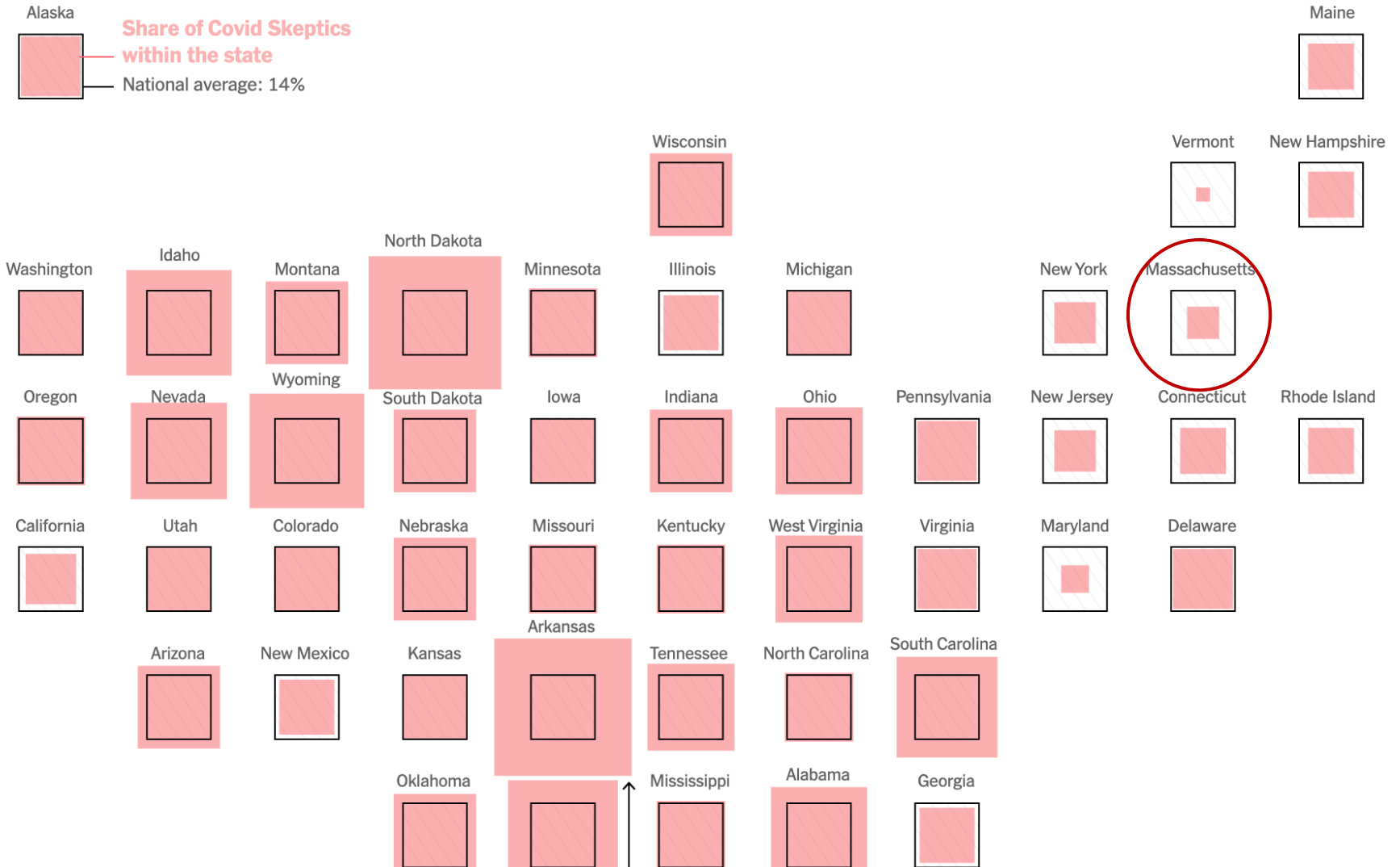
1% are System Distrusters. They feel the health care system doesn't treat them fairly.



7% are Covid Skeptics. They don't believe the threat.

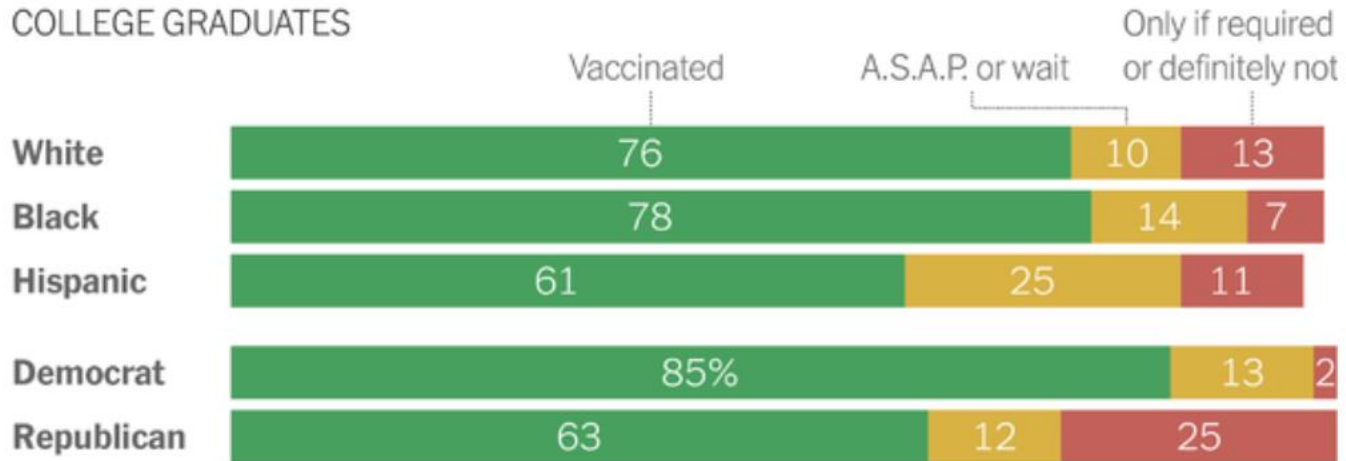


Covid Skeptics

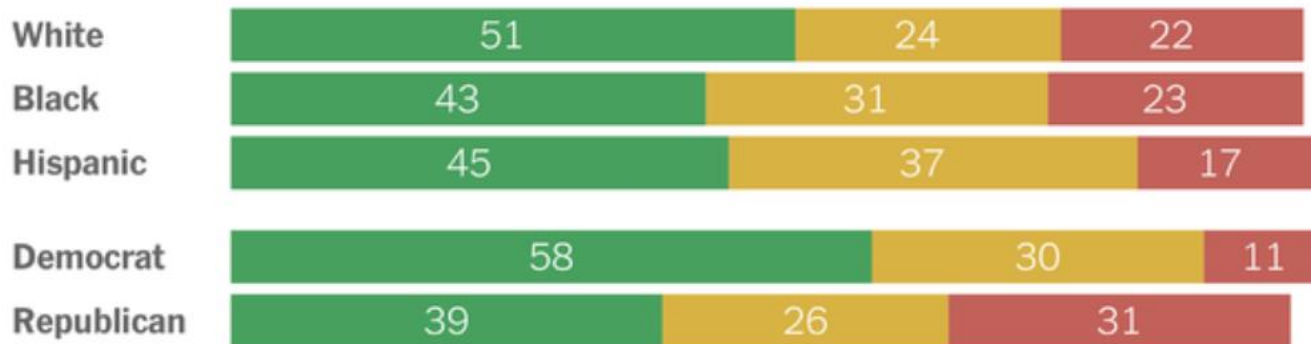


Vaccine Attitudes by Class

COLLEGE GRADUATES



NON-GRADUATES



Random survey of 2,097 adults conducted from April 15 to April 29, 2021.

Not all figures total to 100 percent; some people did not give an answer.

Issues to deal with:

- Why the distrust in science?
 - The concept that knowledge evolves overtime seems to hurt us in Public Health.
- Why so much mis-information?
- What are the next steps for reaching those who are not vaccinated?
- How can the lessons learned in MA be used to help other states?

Dayna Campbell, PhD, MPH

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