Massachusetts Department of Public Health

Disability Equity in Emergency Preparedness: Lessons from COVID-19 Vaccination in Massachusetts

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Meet the rest of the team!

- Nicholas Griffiths, MPH (Health and Disability Program/Community Health Equity Initiative)
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- Cecilia Vu, PhD (Division of Science, Research, and Epidemiology)
- Arielle Coq, MPH (Division of Science, Research, and Epidemiology)

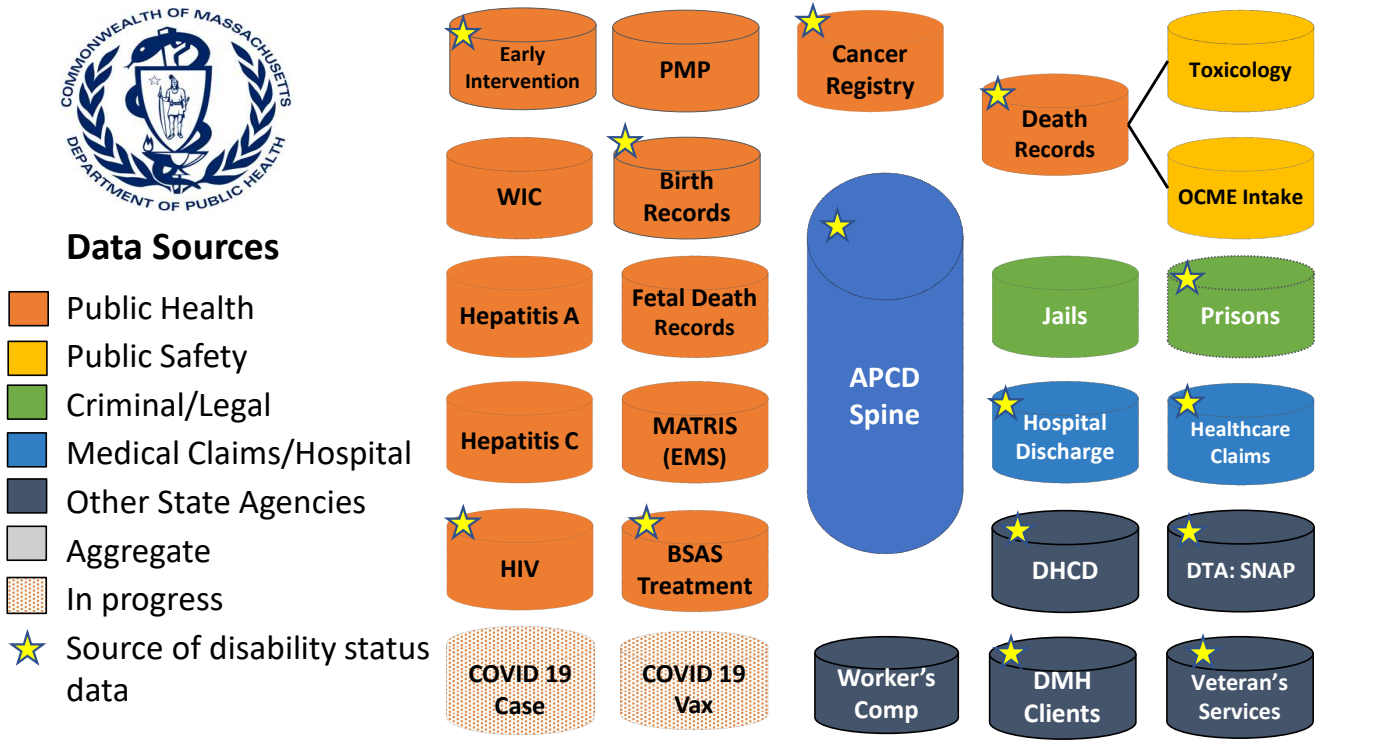
Background

- Questions from community partners and colleagues in Office of Preparedness and Emergency Management:
    - Are people with disabilities being served by existing emergency response strategies that are centered around a single site? (e.g. warming/cooling shelters, family reunification sites, emergency dispensing sites for medications, etc.)
    - What's the best way to communicate health information to people with disabilities, in an emergency and also in preparation for future emergencies?
- Nothing dealing directly with most emergency scenarios! But a LOT about COVID-19…

Data Sources

- Public Health Data Warehouse (PHD)
  - Linked administrative data
  - Nearly all MA residents, including ~3.5 million people with disabilities
  - Vaccination records including date, zip code, and provider type

Data Source: Public Health Data Warehouse (PHD)



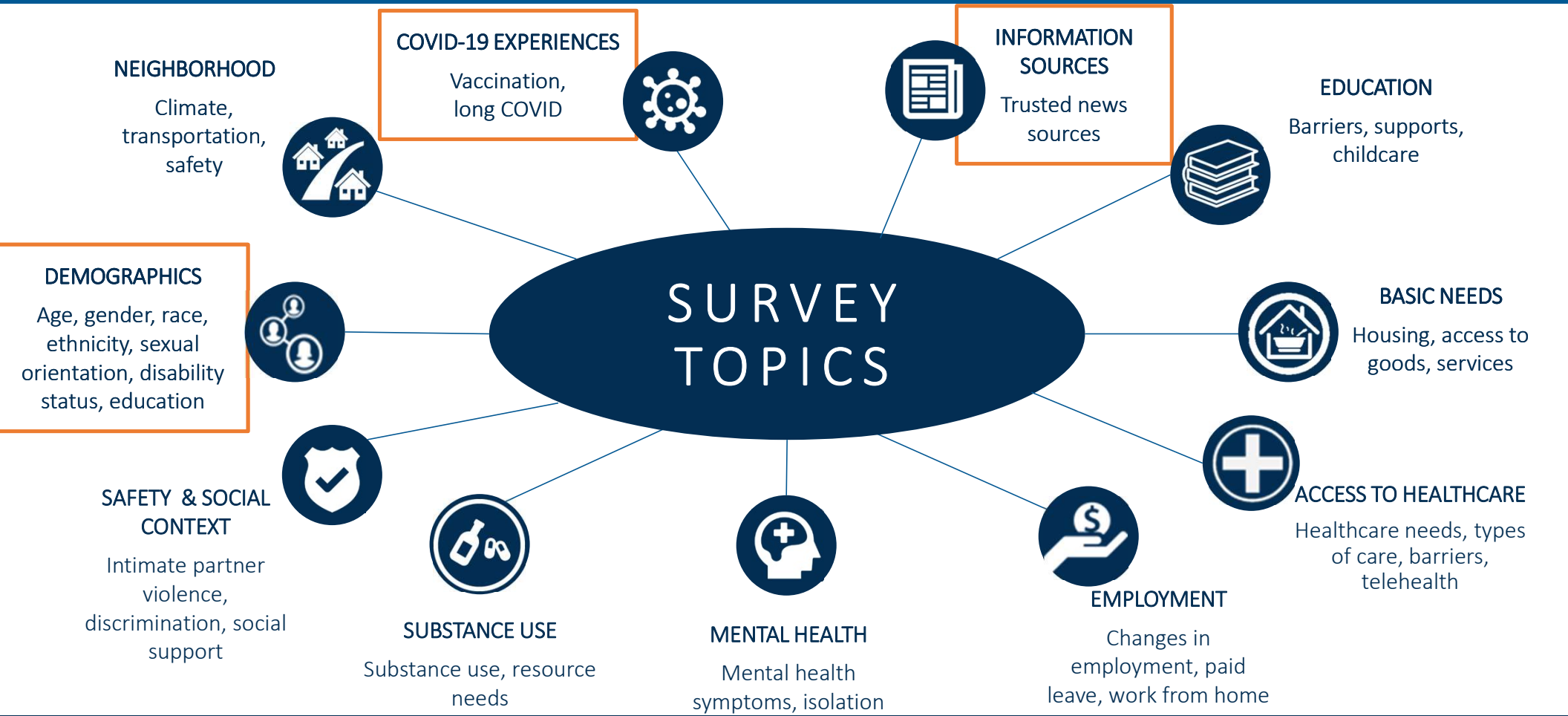
Community Level Data

Town & Zip Census | Naloxone Enroll | Naloxone Rescues | Naloxone Refills | First Responder Naloxone | Index of Concentration at the Extremes | HIDTA Drug Seizure

Data Sources

- Community Health Equity Survey (CHES)
  - Survey data, collected on paper and online from Aug-Nov 2023
  - Designed in collaboration with 50+ community partners; targeted recruitment from communities of focus
  - Survey available in 12 languages, including ASL
  - Over 18,000 respondents, including 3,500+ people with disabilities and 1,500+ caregivers

Data Source: Community Health Equity Survey (CHES)



Data Interpretation Sources

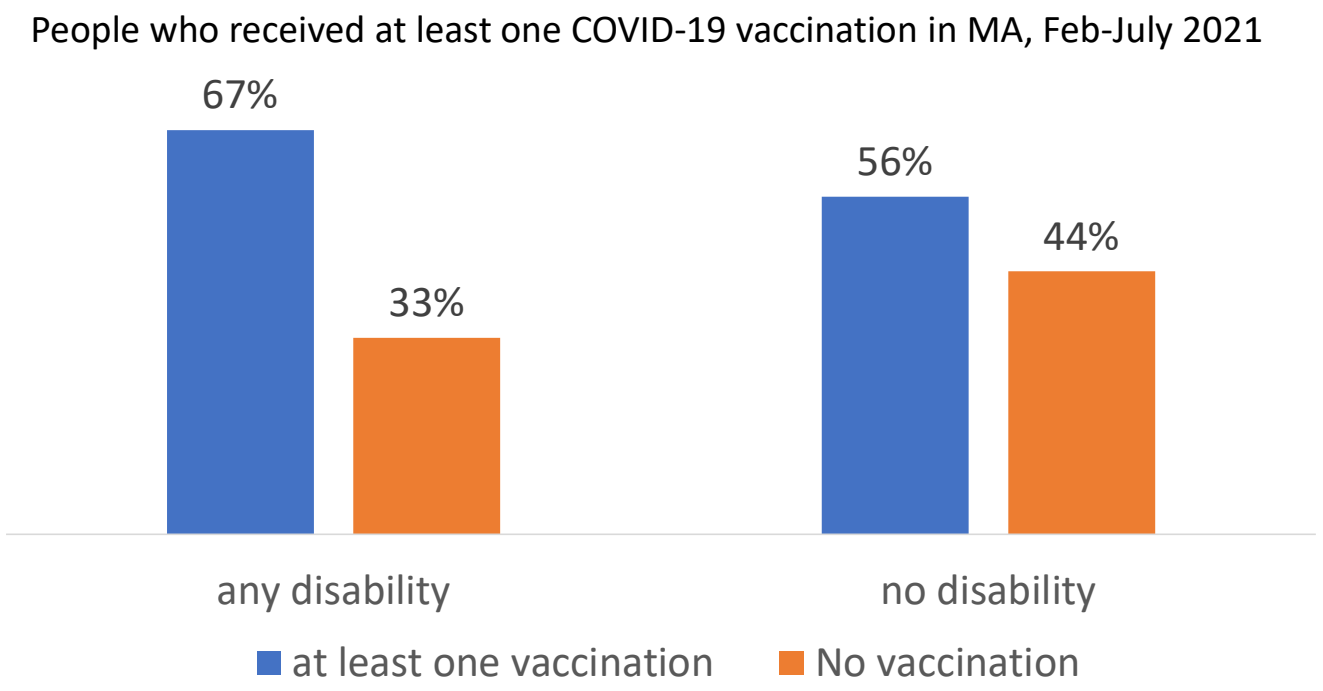
- Preliminary data were collaboratively interpreted with:
  - Vaccine Equity Initiative
  - Division of Community Engagement
  - Bureau of Infectious Disease and Laboratory Sciences
  - Division of Science, Research and Epidemiology
  - Bureau of Community Health and Prevention
  - Office of Preparedness and Emergency Management
  - Massachusetts Commission on the Deaf and Hard of Hearing
  - Massachusetts Executive Office of Elder Affairs
  - Local public health authorities
  - Massachusetts Health and Disability Partnership

= MDPH internal stakeholders = Data holder/steward = External government agency = Community

Observations: Vaccination Rates and Sites

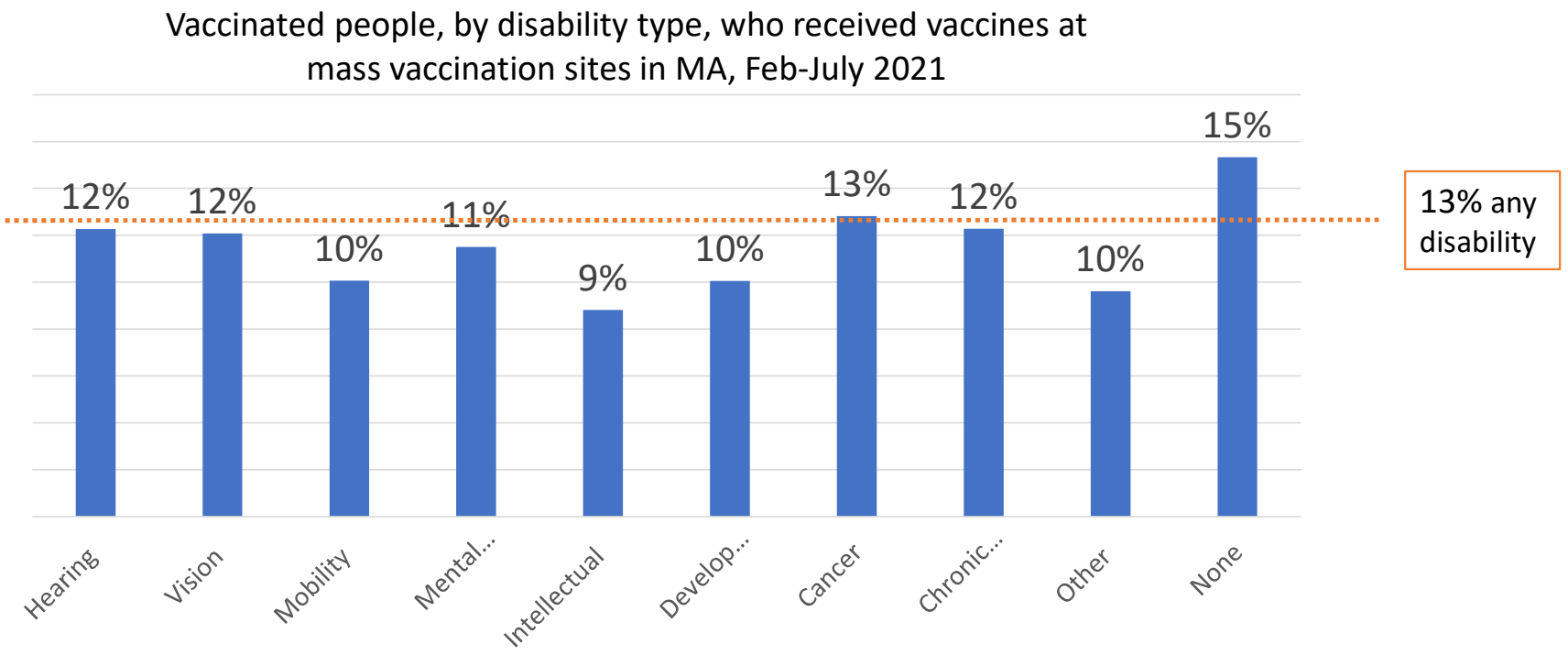
Vaccination Rates (PHD)

Contrary to national trends, people with disabilities in MA were more likely to be vaccinated than nondisabled peers.



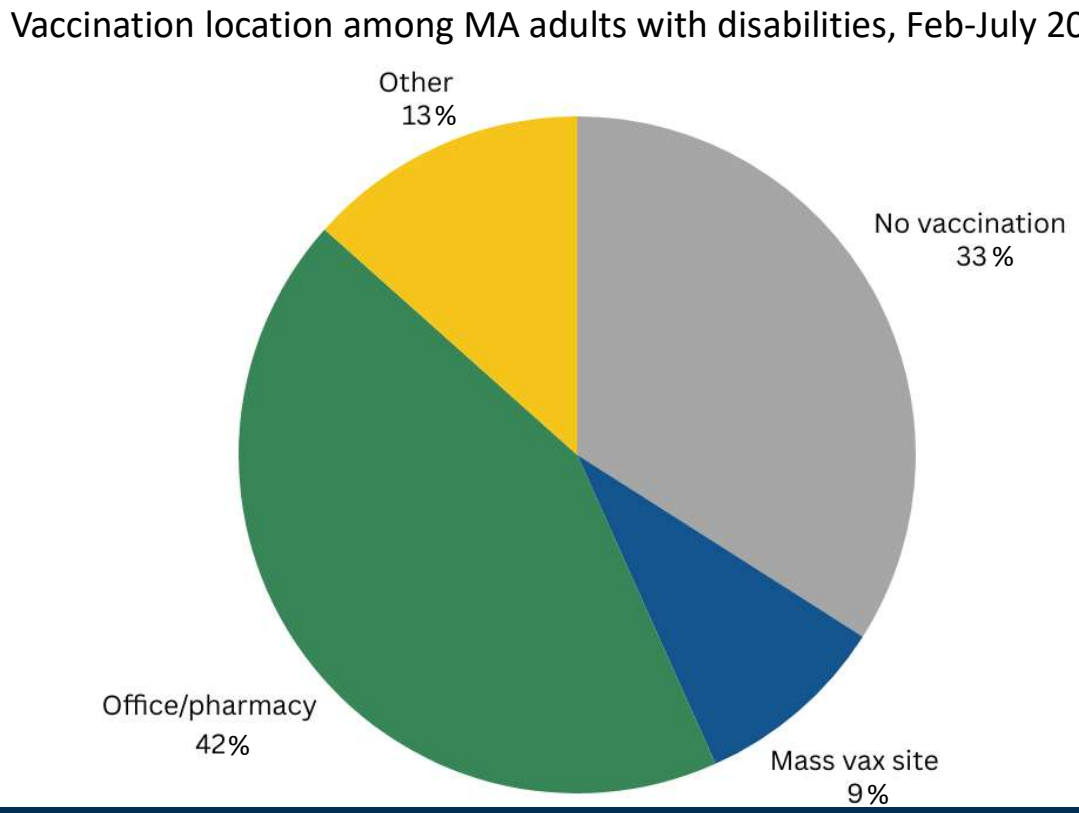
Vaccination Sites (PHD)

However, they were less likely to use mass vaccination sites.



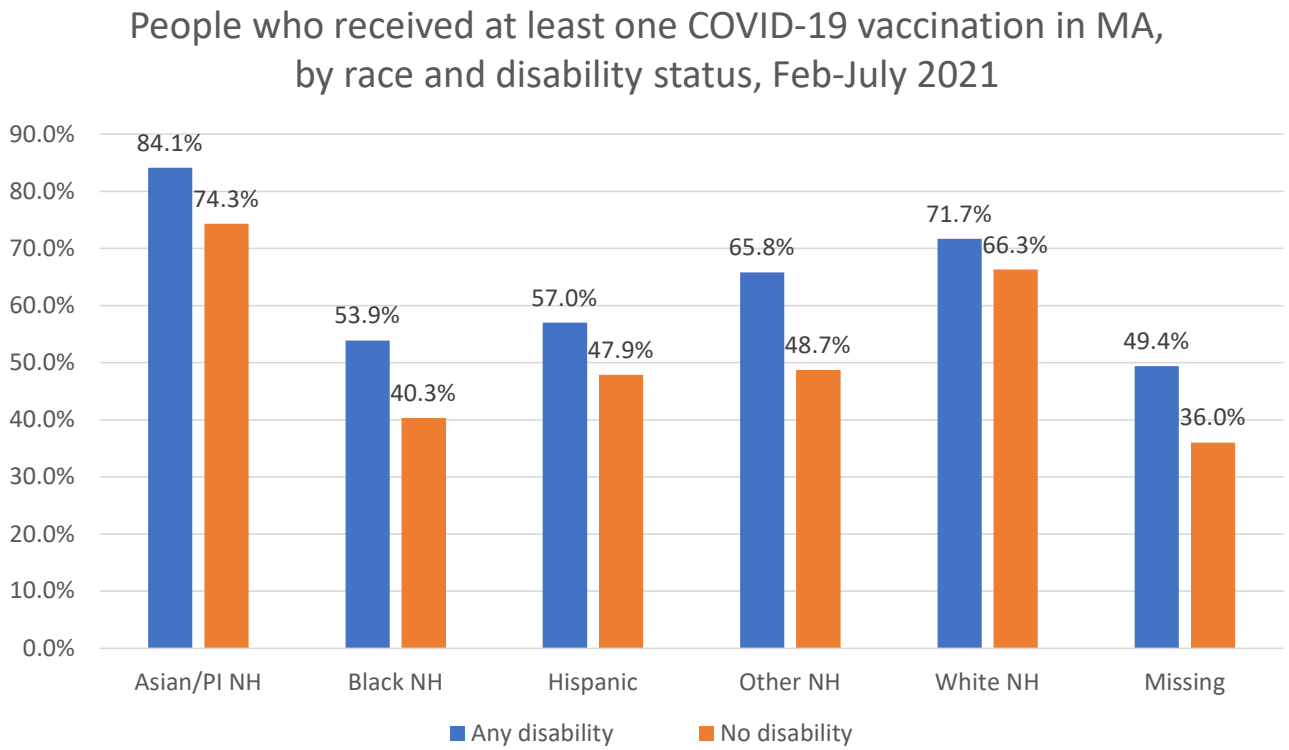
Vaccination Sites (PHD)

Most people with disabilities were vaccinated in pharmacies/doctor's offices.



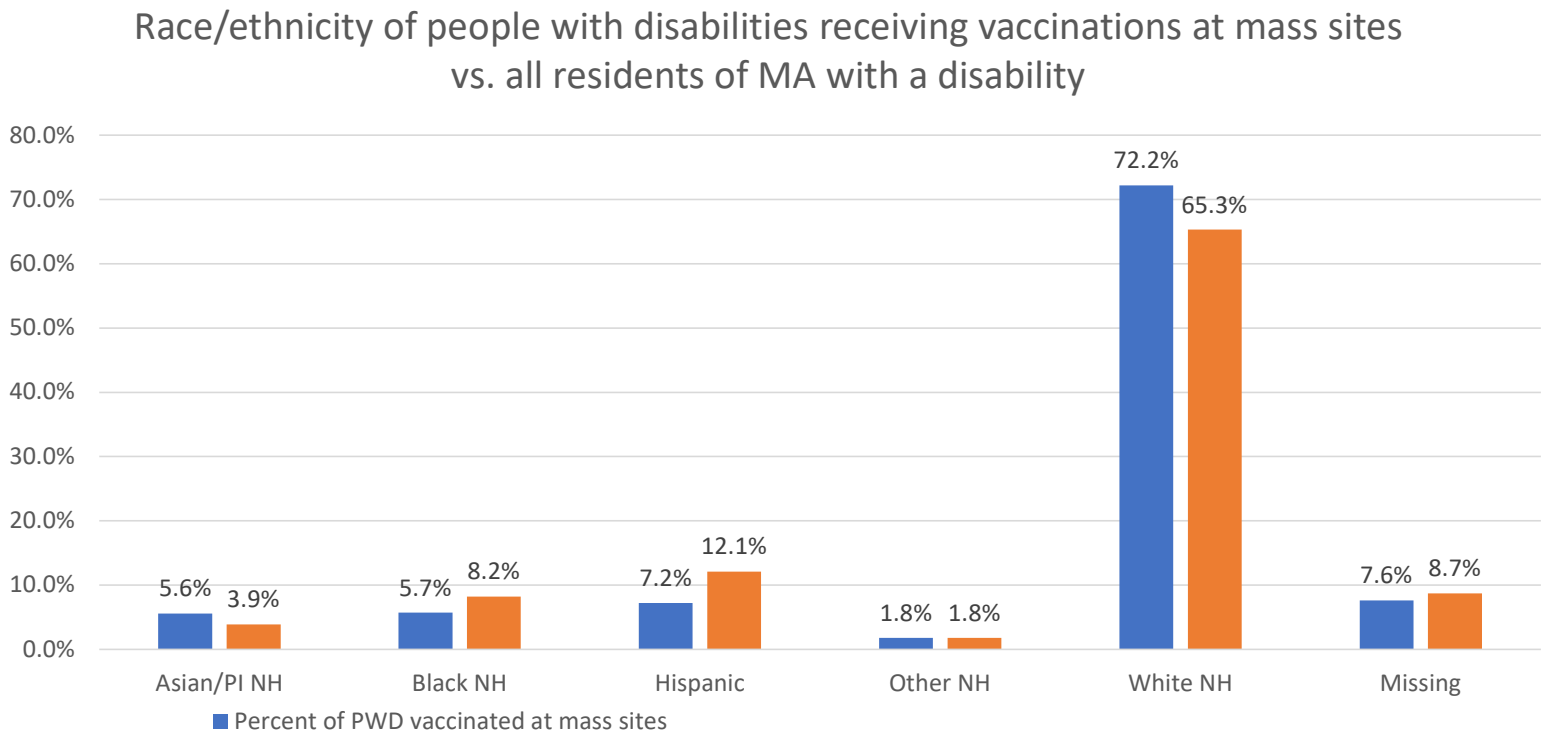
Vaccination Rates (PHD)

Racial and ethnic disparities in vaccination rates persisted within the disability community, but in slightly different ways.



Vaccination Rates (PHD)

Black and Hispanic people with disabilities were particularly underrepresented among PWD choosing mass vax sites.



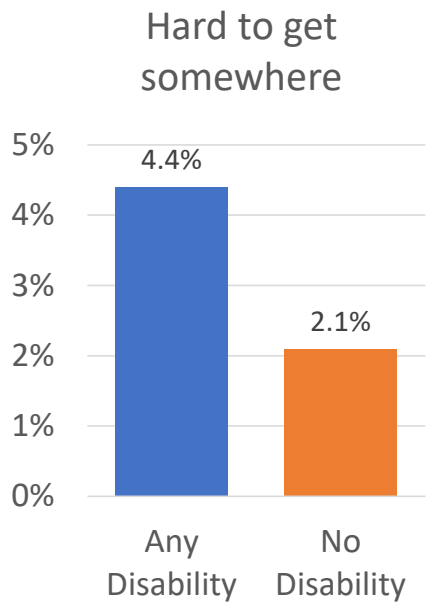
Observations: Vaccination Barriers and Preferences

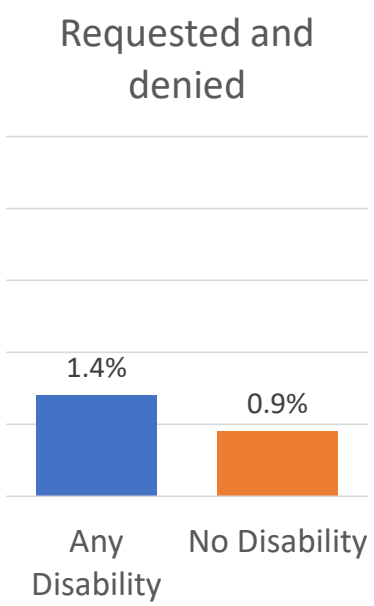
Overview: Vaccination Barriers (CHES)

- People with disabilities were:
  - much less likely to believe that vaccines were unnecessary,
  - somewhat more likely to have concerns about safety/side effects,
  - somewhat more likely to be uncertain about when to get vaccinated,
  - twice as likely to be unvaccinated because they couldn't get to a vaccine site.

Vaccination Barriers (CHES)

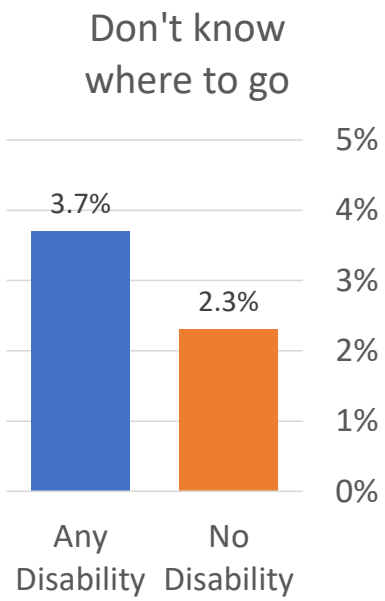
Access barriers

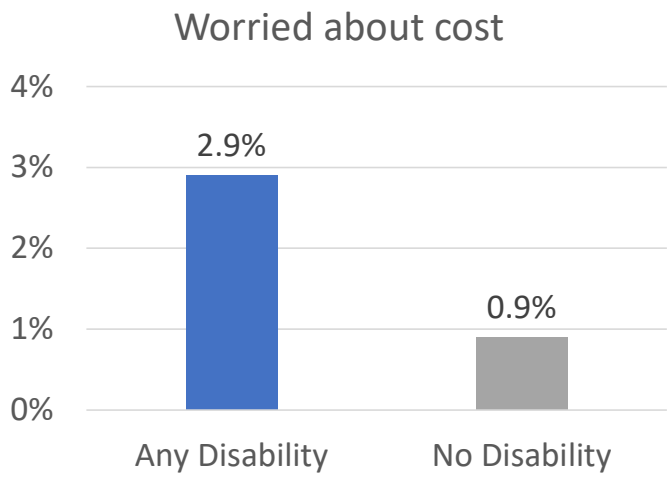




Vaccination Barriers (CHES)

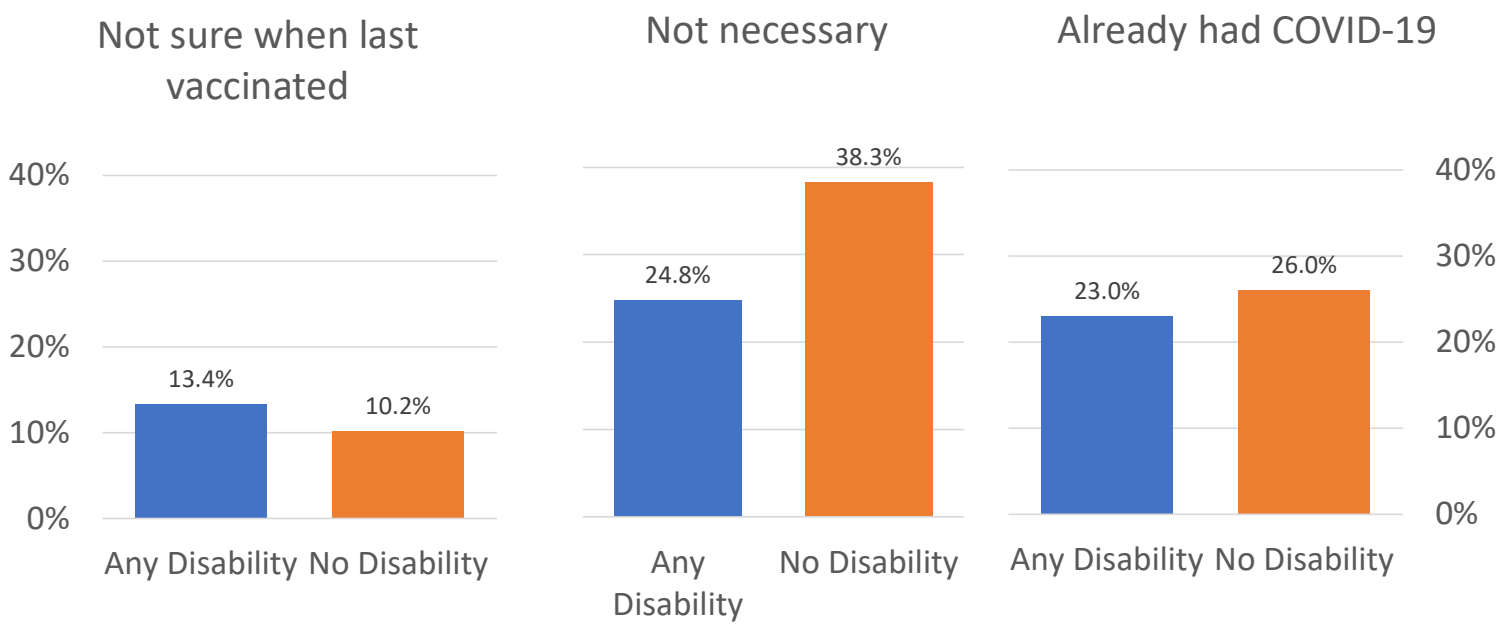
Access *and* information barriers





Vaccination Barriers (CHES)

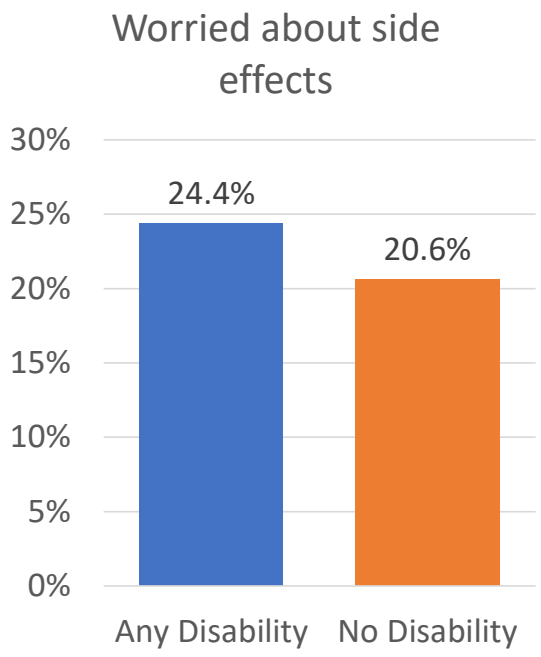
Information barriers

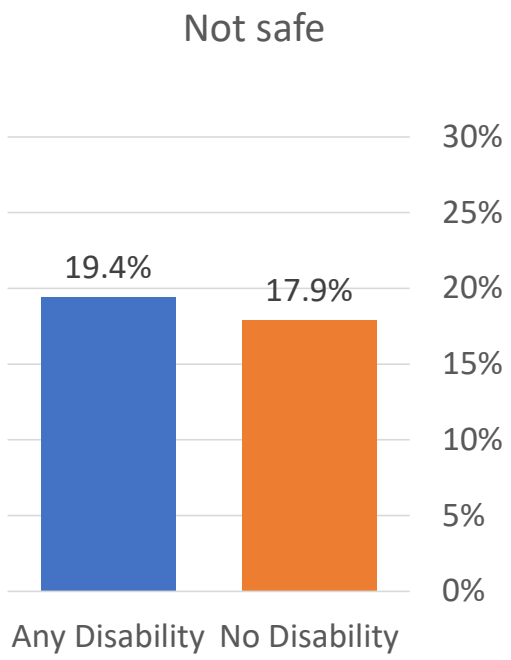


Vaccination Barriers (CHES)

It's complicated!

The same answer may mean something different depending on whether the person has a disability.



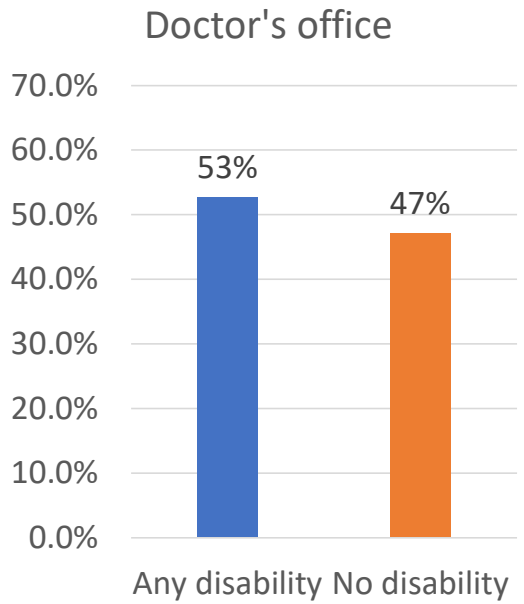


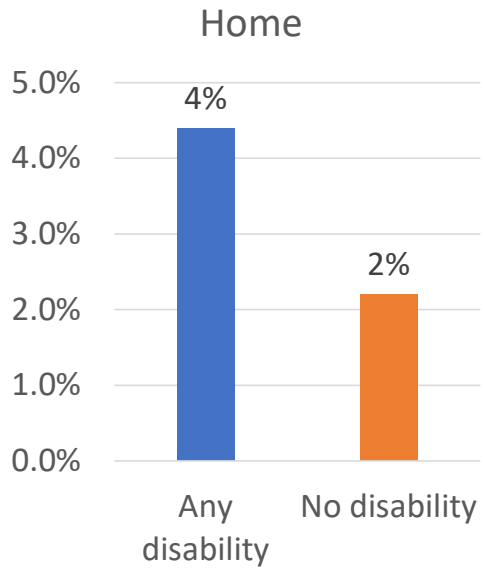
Overview: Vaccine Site Preferences (CHES)

- People with disabilities showed markedly different vaccine site preferences compared to nondisabled people overall.
  - Results are even more striking when broken down by disability type and/or complexity
  - These preferences mirror actual behavior in vaccination site selection (especially those who did not get vaccinated until in-home and in-office vaccines were available)

Vaccination Site Preferences (CHES)

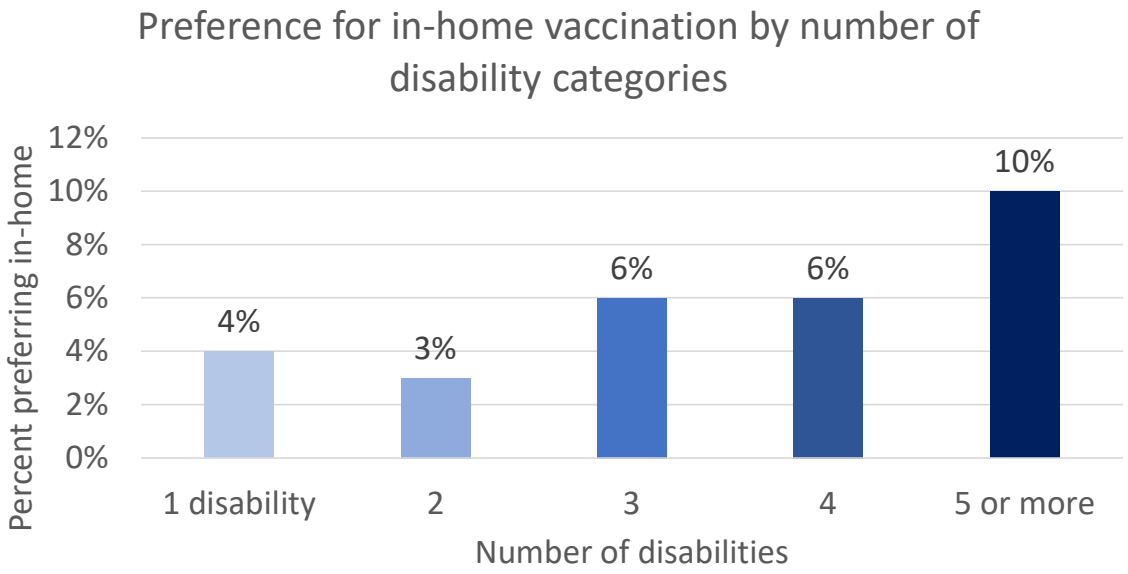
People with disabilities were overall more likely than nondisabled people to prefer vaccination in **doctor's offices** and **at home**





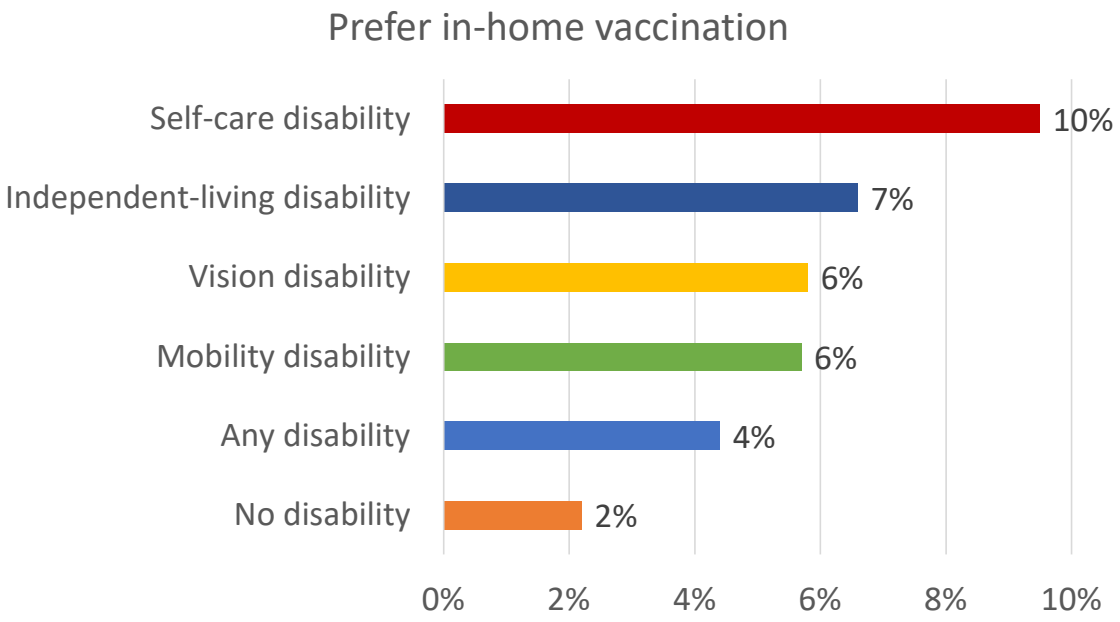
Vaccination Site Preferences (CHES)

Vaccine site preferences vary by disability complexity (number of different disability categories checked off).



Vaccination Site Preferences (CHES)

Vaccine site preferences vary by disability type.



Vaccination Site Preferences – more to learn (CHES)

Observations from other analyses:

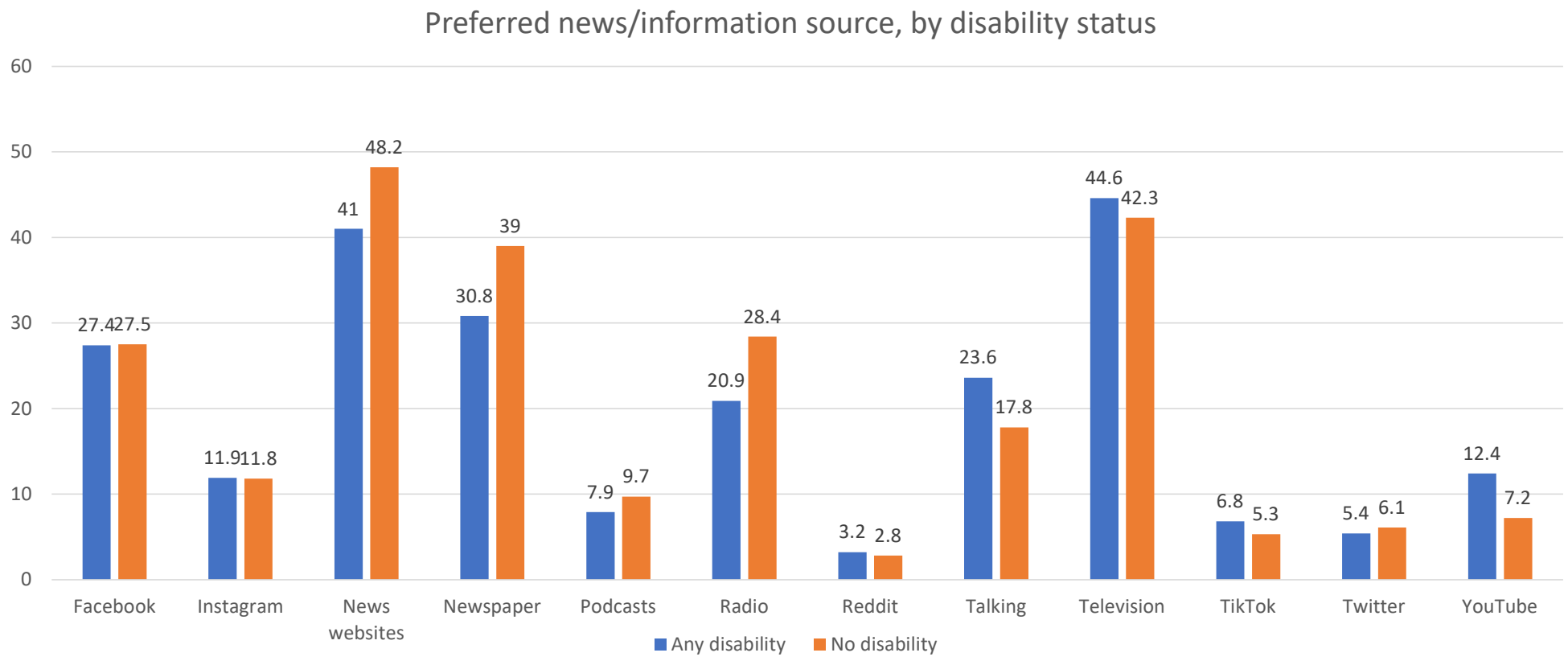
- Among Asian, Black, and Hispanic people with a disability, preference for doctor's office was much more common than preference for a pharmacy. In contrast, White people with a disability were more likely to prefer a pharmacy.
- People with disabilities in the most rural areas show site preferences that are markedly different than their less-rural and urban peers: notably, lower preference for doctor's office and higher preference for community events/organizations.
  - These patterns are similar to non-disabled people in these areas, but more marked.

Overview: Communication Preferences (CHES)

People with disabilities:

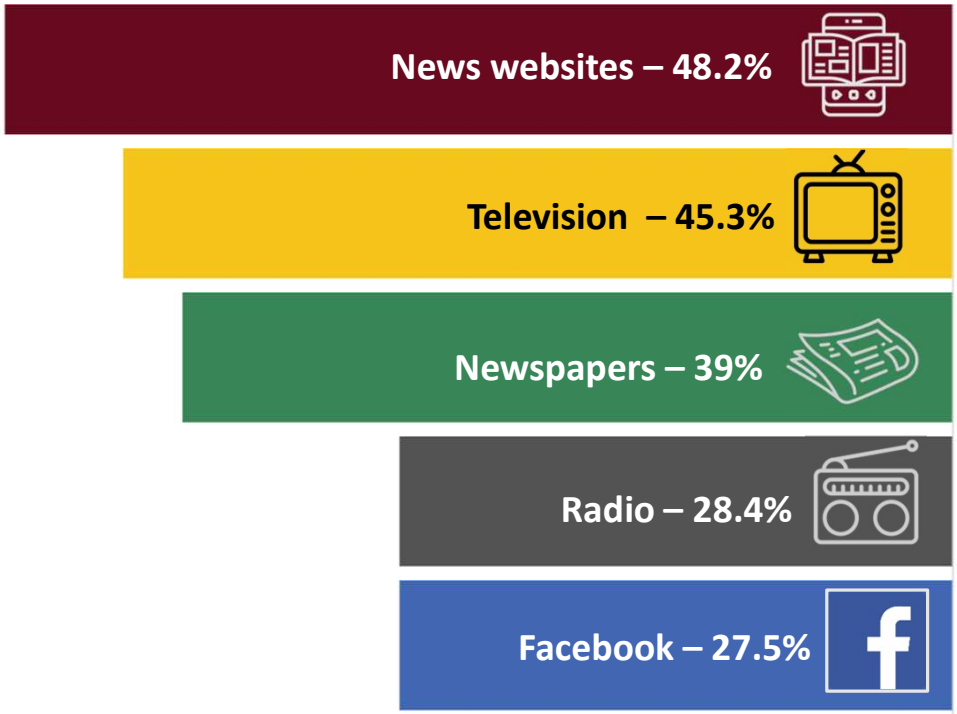
- show some similar overall communication preferences to their nondisabled peers but have stronger preferences for verbal/video vs print sources;
- are more likely than nondisabled peers to seek information via word of mouth;
- have different preferences depending on disability type, race/ethnicity, and other characteristics.

Communication Preferences (CHES)

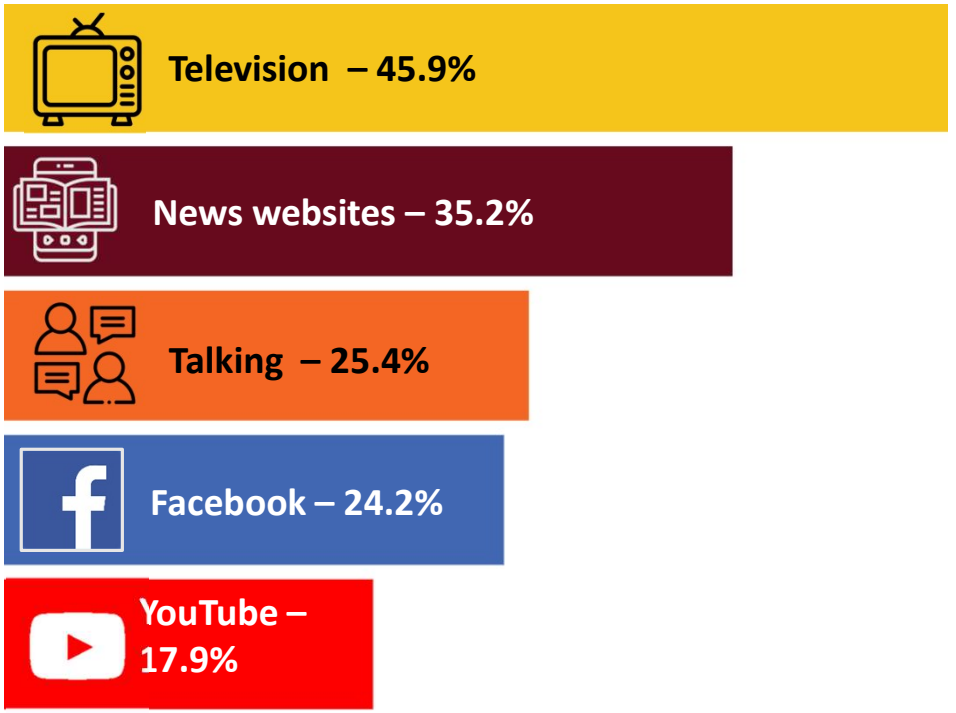


Top 5 Information Sources (CHES)

Among people with no disability



Among people with self-care disabilities



Communication Preferences – more to learn (CHES)

Observations from other analyses:

- Preferred news/information source varies widely by race/ethnicity; for example:
  - Asian American/Pacific Islander people with disabilities disproportionately prefer word-of-mouth (56% vs 23.6% of PWD in general) and YouTube (67% vs 12.4%);
  - Middle Eastern/North African people with disabilities strongly disprefer television (0% vs 44% of PWD in general) but heavily use news websites (52% vs 41%)
- Check your assumptions!
  - The group with the strongest preference for radio… deaf/hard-of-hearing people! (25.6% vs – for example - 13.3% of people with mental-health disabilities)

Key Takeaways

Key Takeaways

- Mass vaccination sites were important!
  - However, some improvements are necessary in future.
  - For some people, they will never be the best option, and alternatives need to be planned in advance.
- Communication is key!
  - High levels of information access barriers mean a need to disseminate information where people with disabilities will be most likely to find it.
- Details matter!
  - People with disabilities overall had a different vaccination experience: less about willingness/acceptance, more about ability/access.
  - People with disabilities are also not a monolith: different groups have different needs!
  - We don't know what we're not looking at.

What’s next?

What's next?

- ASTHO Connect webinar tomorrow, connecting these data to action in emergency preparedness
- Data brief(s) in progress, will be translated into top 10 written languages and ASL video version
- Presentation highlighting experiences of American Indian/Native Alaskan people with disabilities at Massachusetts Tribal and Indigenous Health Summit, October
- APHA presentation on ASL data collection in Community Health Equity Survey (main data source for this work), October
- Data will be incorporated into MA Disability Community Health Needs Assessment (part of MA State Health Assessment)

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