



Immunization Webinar Series

Social Determinants of Health & Vaccine Equity

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CME Accreditation Statement

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Dr. Adiba Khan

Clinical Instructor - McGaw Northwestern
Family Medicine

Interests - comprehensive reproductive
healthcare, reproductive justice, resident
feedback, SDoH, vaccine equity

Family Medicine Residency-
McGaw Northwestern

University of Illinois College of Medicine

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Dr. Joyce Jones-King

Clinical Instructor - McGaw Northwestern
Family Medicine Residency

Interests – Healthy Equity and SDoH,
Community Medicine, Addressing Vaccine
Hesitancy in African Americans

Family Medicine Residency - McGaw
Northwestern

Chicago Medical School at Rosalind
Franklin University of Medicine and
Science

Learning Objectives

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Define Social Determinants of Health (SDOH) and their impact

Identify benefits of SDOH screening and strategies to address needs

Recognize historical factors contributing to medical mistrust among racial and ethnic minority groups

Understand various concerns parents have when deciding whether to have their children vaccinated

Utilize strategies to address vaccine inequity

Race and ethnicity of children aged 6 mos–4yrs who received ≥ 1 dose of a COVID-19 vaccination series

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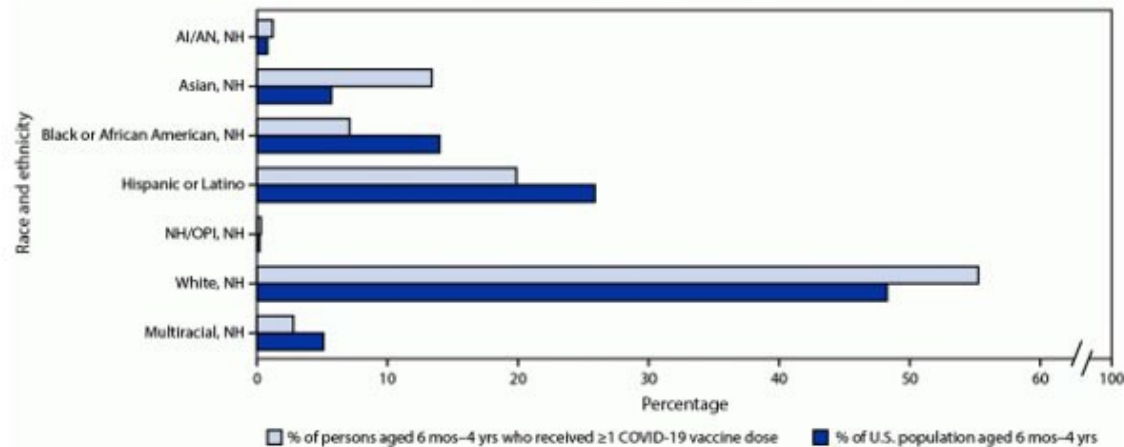
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FIGURE 2. Race and ethnicity* of children aged 6 months–4 years who received ≥ 1 dose of a COVID-19 vaccination series, by racial and ethnic distribution of the U.S. population† aged 6 months–4 years — United States, June 20–December 31, 2022



Abbreviations: AI/AN = American Indian or Alaska Native; NH = non-Hispanic; NH/OPI = Native Hawaiian or other Pacific Islander.

* Race and ethnicity was available for 71.4% of persons.

† The U.S. Census Bureau does not include the category "other" as a race category, although immunization information systems in many jurisdictions might report "other." In this analysis, "other race" was considered unknown, and no comparison with U.S. Census Bureau data was made.

Murthy BP, Fast HE, Zell E, et al. COVID-19 Vaccination Coverage and Demographic Characteristics of Infants and Children Aged 6 Months–4 Years — United States, June 20–December 31, 2022. *MMWR Morb Mortal Wkly Rep* 2023;72:183–189. DOI: <http://dx.doi.org/10.15585/mmwr.mm7207a4>

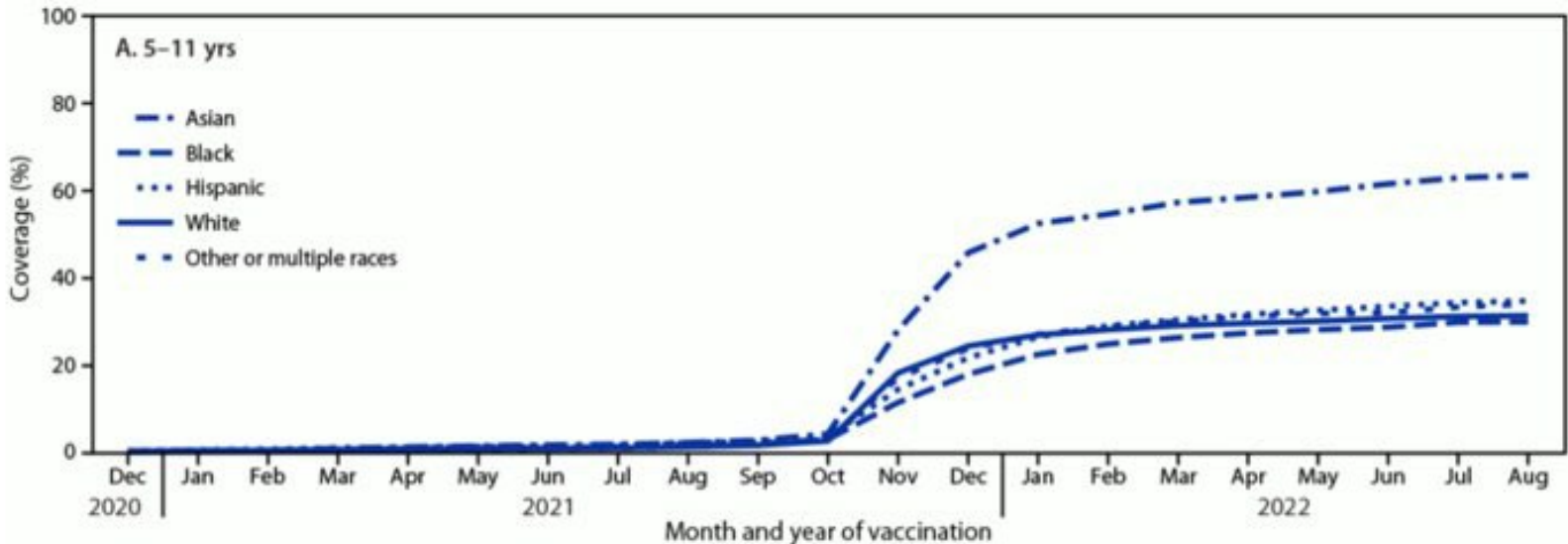
COVID-19 vaccination coverage estimates, by race and ethnicity, among persons aged 5–11 years

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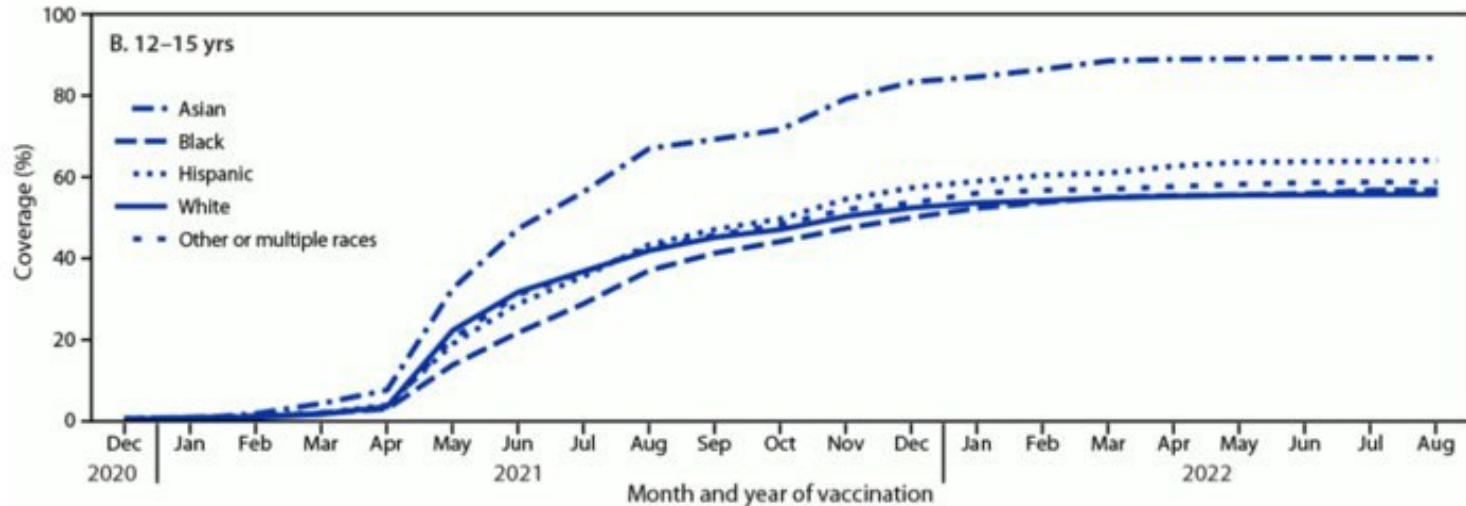
COVID-19 vaccination coverage estimates, by race and ethnicity, among persons aged 12-15 years

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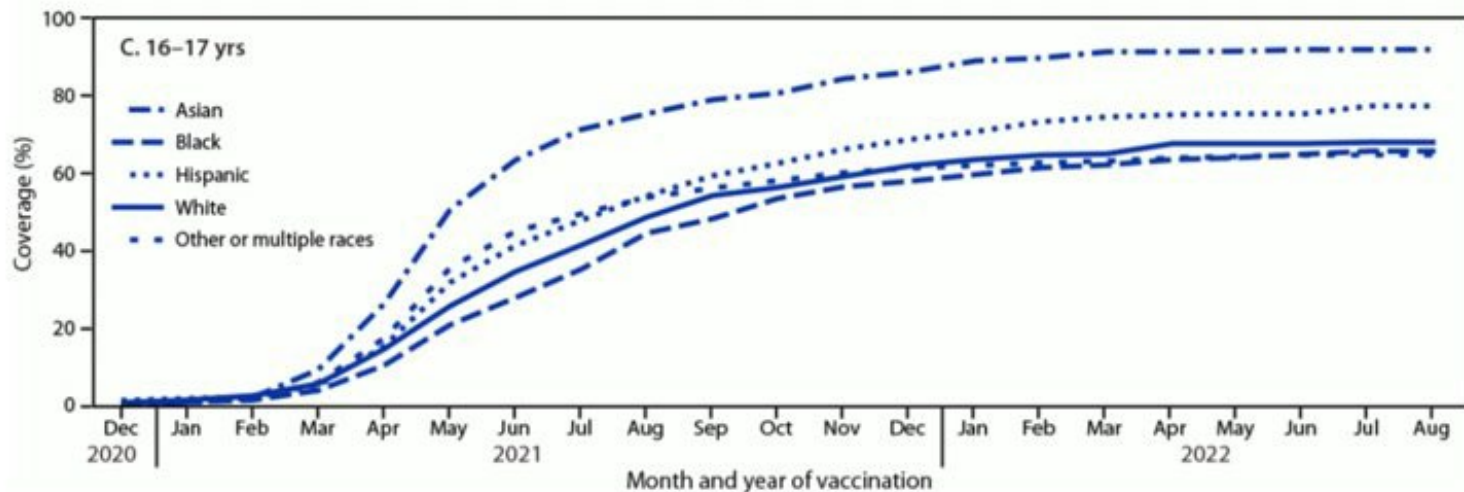
COVID-19 vaccination coverage estimates, by race and ethnicity, among persons aged 16–17 years

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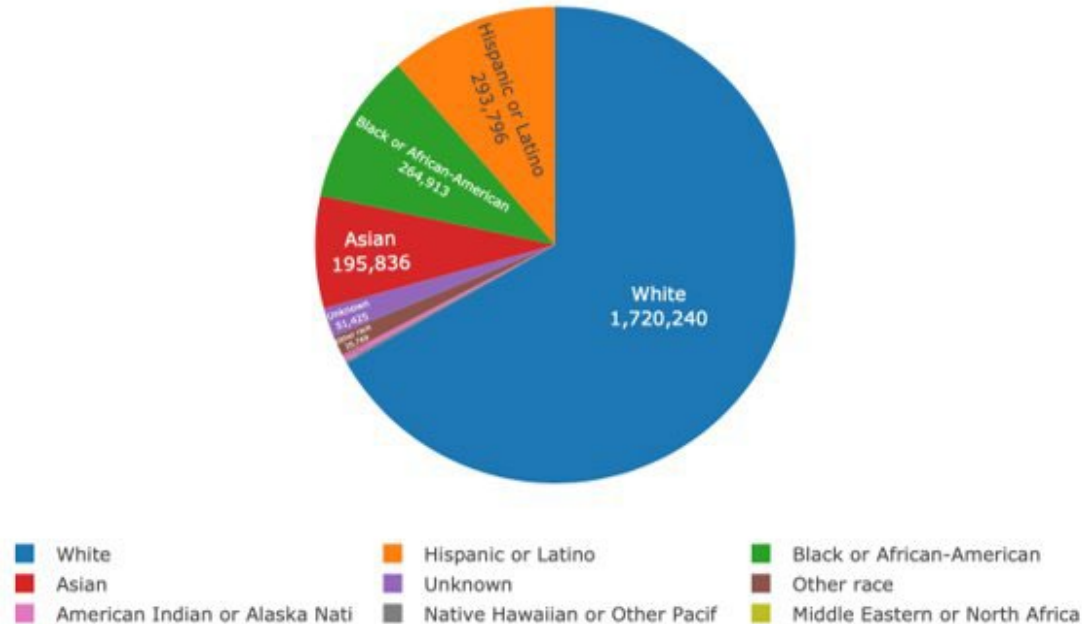
Illinois Department of Public Health

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Child Vaccination Across America

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% of children 24 months old who have received:

- ≥4 doses of DTaP
- ≥3 doses of Polio vaccine
- ≥1 dose of measles-containing vaccine
- The full series of Hib (≥3 or ≥4 doses, depending on product type)
- ≥3 doses of HepB
- ≥1 dose of VAR
- ≥4 doses of PCV

US average

70.1%

By race/ethnicity

White (non-Hispanic)

72.8%

Black (non-Hispanic)

62.7%

Hispanic

69.1%

American Indian/Alaska Native

63.1%

Asian (non-Hispanic)

74.4%

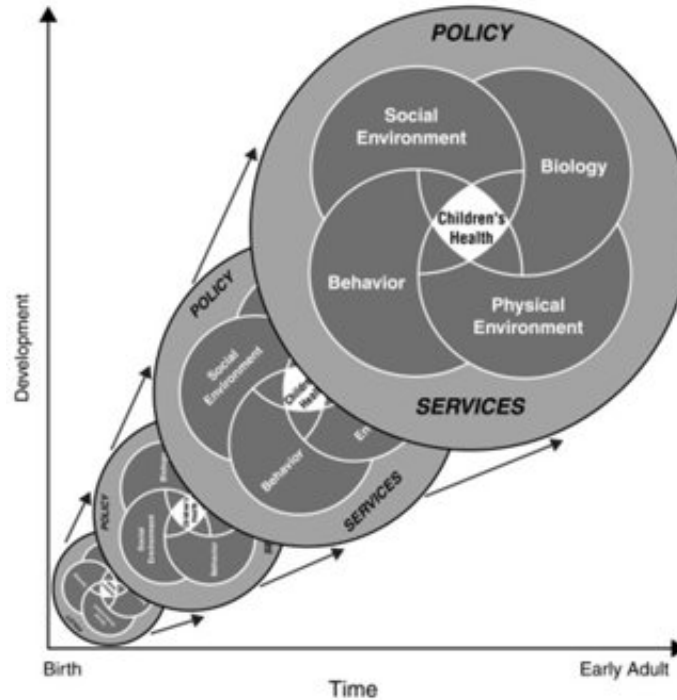
Models of Children's Health & It's Influence

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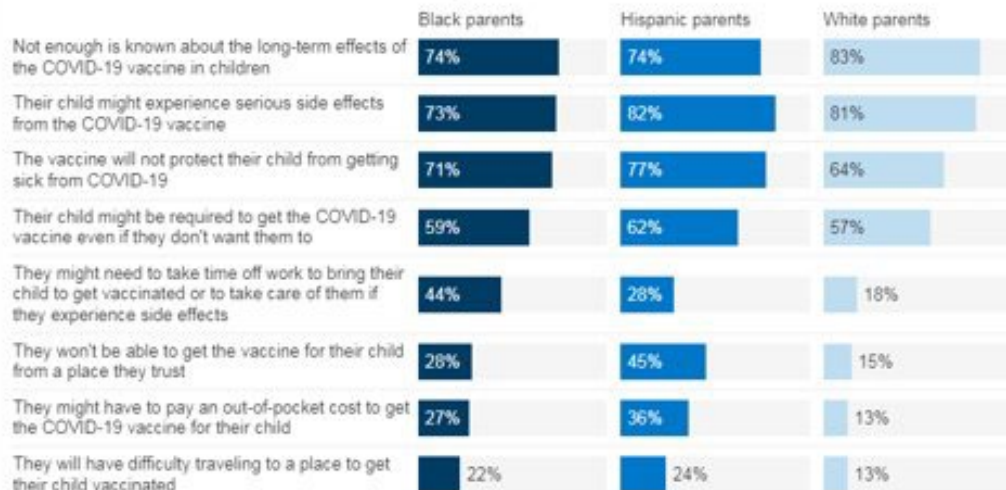


Source: National Research Council (US); Institute of Medicine (US). Washington (DC): [National Academies Press \(US\)](#); 2004.

Figure 5

Hispanic And Black Parents More Likely Than White Parents To Be Concerned About Some Access-Related Barriers To COVID-19 Vaccination For Their Young Child

Percent of parents of unvaccinated children between the ages of 6 months and 4 years who say they are **very** or **somewhat concerned** about the each of the following:



NOTE: Asked of parents or guardians of unvaccinated children between the ages of 6 months of 4 years. See topline for full question wording.

SOURCE: KFF COVID-19 Vaccine Monitor (July 7-17, 2022) • PNG

KFF COVID-19
Vaccine Monitor

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The Role of Healthcare Providers



Figure 8

Most Parents Of Children Between The Ages Of 6 Months And 4 Years Have Not Talked To A Pediatrician About The COVID-19 Vaccine For Their Child

Have you talked to a pediatrician or other health care provider about the COVID-19 vaccine for your child between the ages of 6 months and 4 years old?



NOTE: Asked of parents or guardians of children between the ages of 6 months and 4 years. See topline for full question wording.

SOURCE: KFF COVID-19 Vaccine Monitor (July 7-17, 2022) • PNG

KFF COVID-19
Vaccine Monitor



Figure 7

A Majority Of Parents Of Children Under 5 Say COVID-19 Vaccine Information From Federal Health Agencies Is Confusing

Do you personally think the information from federal health agencies about the COVID-19 vaccine for children under the age of five is...



NOTE: Asked of parents or guardians of children under the age of 5. See topline for full question wording.

SOURCE: KFF COVID-19 Vaccine Monitor (July 7-17, 2022) • PNG

KFF COVID-19
Vaccine Monitor

Social Determinants Affect Total Health

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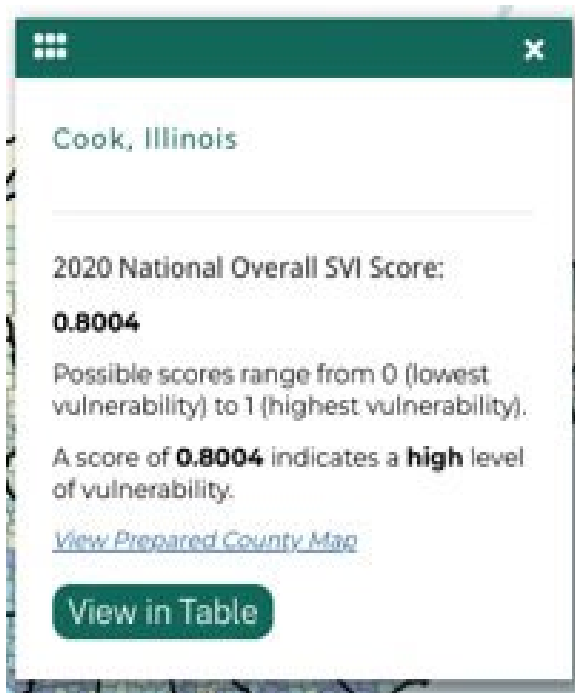
Vulnerable Populations Face Health Inequities

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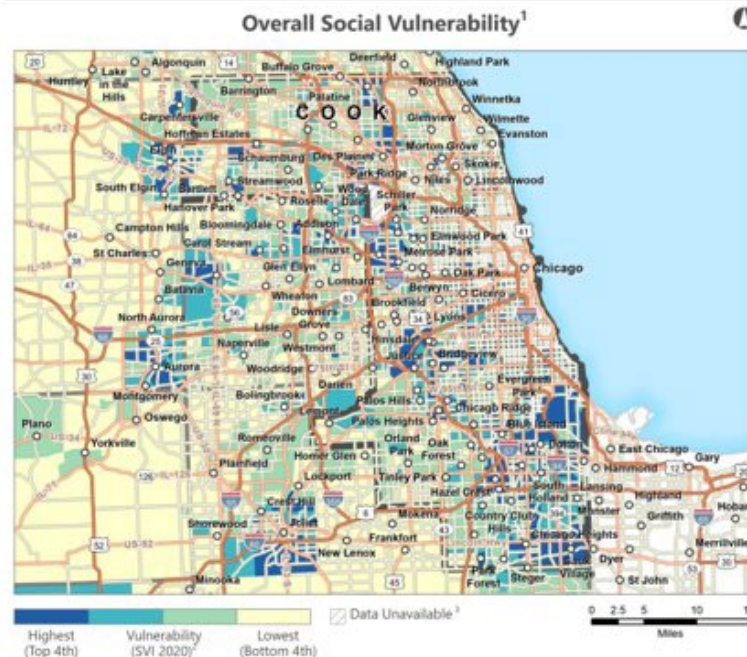
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CDC/ATSDR Social Vulnerability Index 2020

COOK COUNTY, ILLINOIS



Vulnerable Populations Face HealthCare Inequities

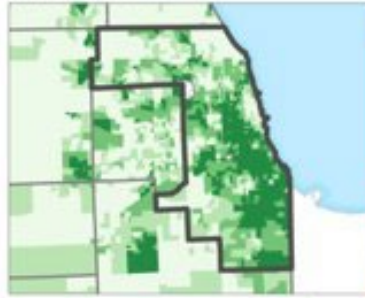
CDC/ATSDR SVI 2020 – COOK COUNTY, ILLINOIS



CDC/ATSDR SVI Themes

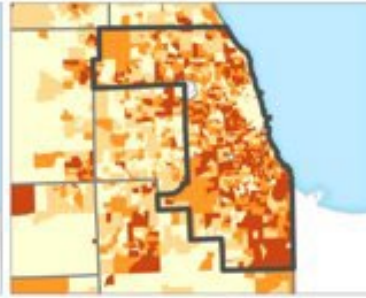


Socioeconomic Status⁵



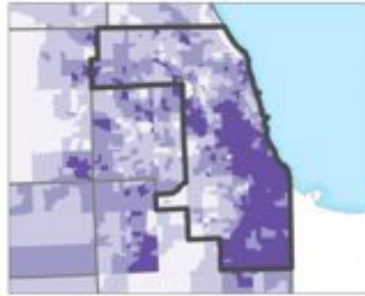
Highest (Top 4th) Vulnerability (SVI 2020)⁵ Lowest (Bottom 4th)

Household Characteristics⁶



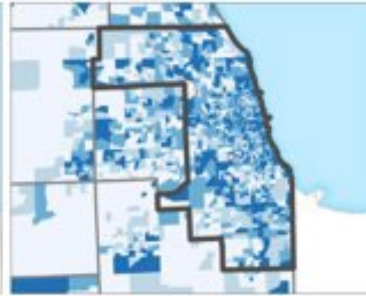
Highest (Top 4th) Vulnerability (SVI 2020)⁶ Lowest (Bottom 4th)

Racial and Ethnic Minority Status⁷



Highest (Top 4th) Vulnerability (SVI 2020)⁷ Lowest (Bottom 4th)

Housing Type/Transportation⁸



Highest (Top 4th) Vulnerability (SVI 2020)⁸ Lowest (Bottom 4th)

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Social Determinant of Health (SDOH)

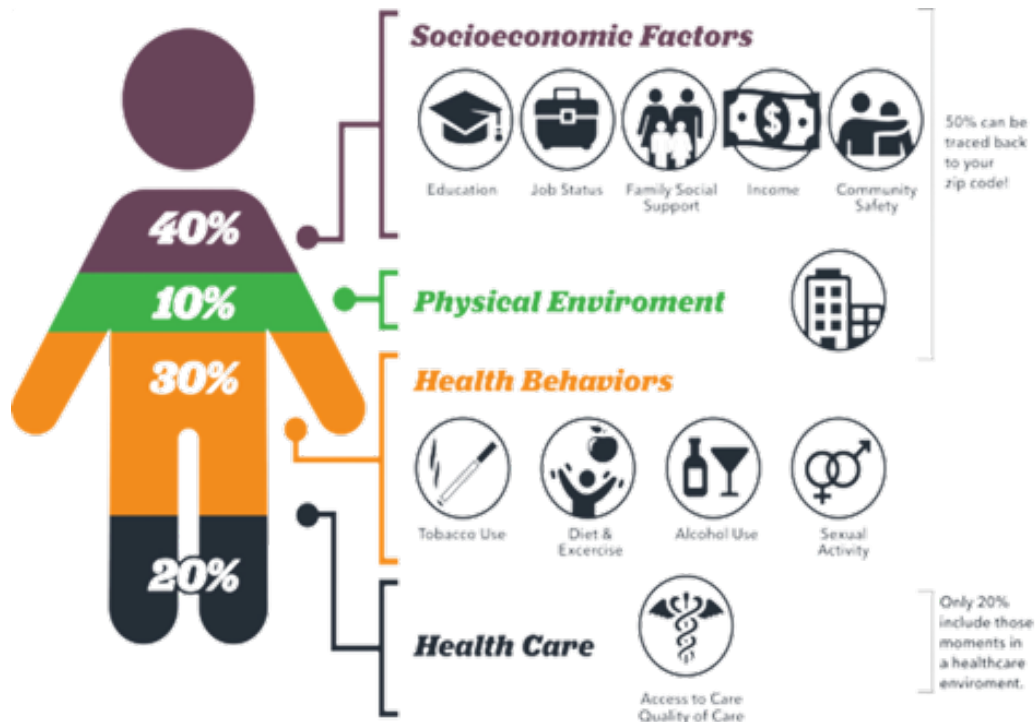
Conditions in which people are born into, live, learn, play, work and grow up

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Granade, Charleigh J., et al. "Racial and Ethnic Disparities in Adult Vaccination: A Review of the State of Evidence." *Health Equity*, vol. 6, no. 1, 2022, pp. 206–223, <https://doi.org/10.1089/heq.2021.0177>.

Legacy of Health Disparities

- ▶ African Americans
- ▶ Native Americans
- ▶ Hispanics



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Native American Treaties and Broken Promises: 1851 to 1877

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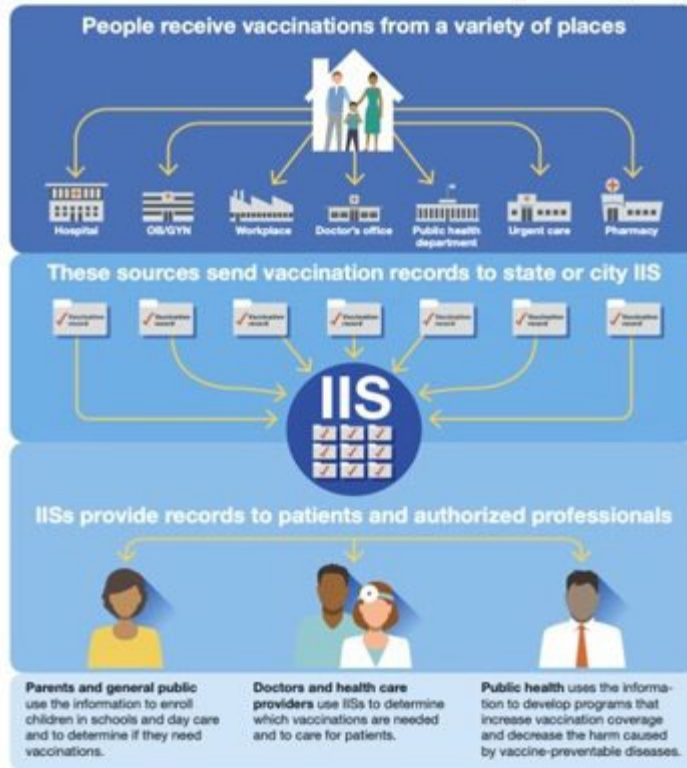
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What Can We Do?

Basics of Immunization Information Systems (IISs)



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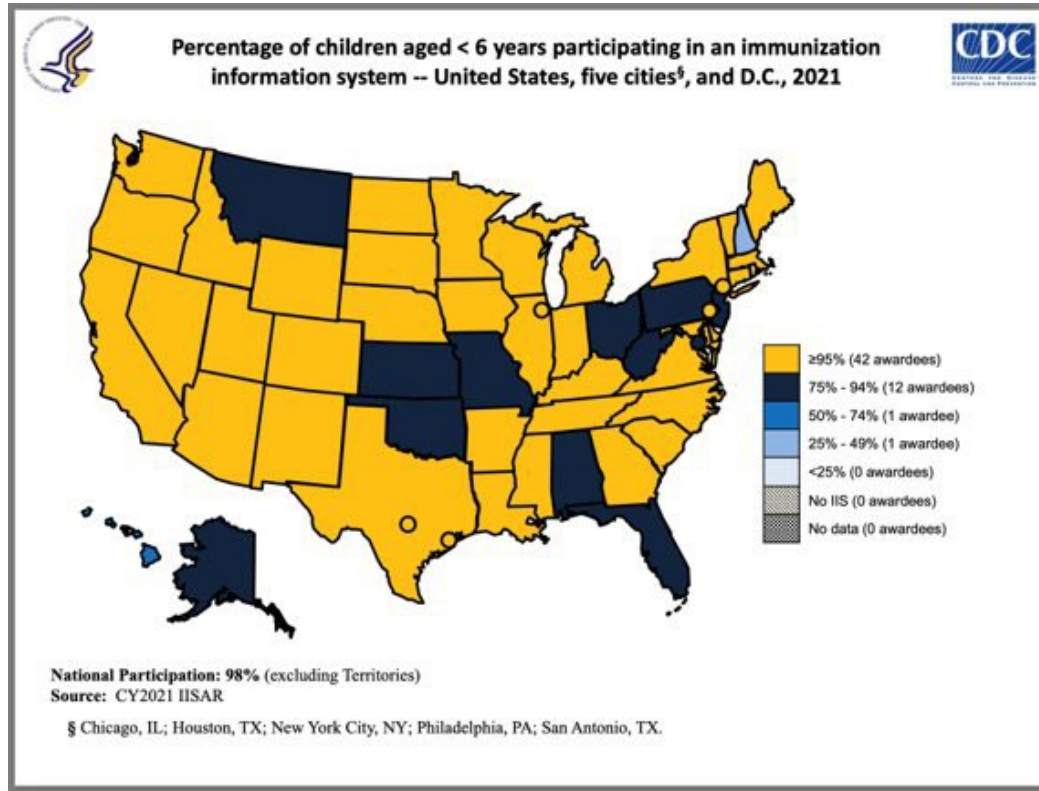


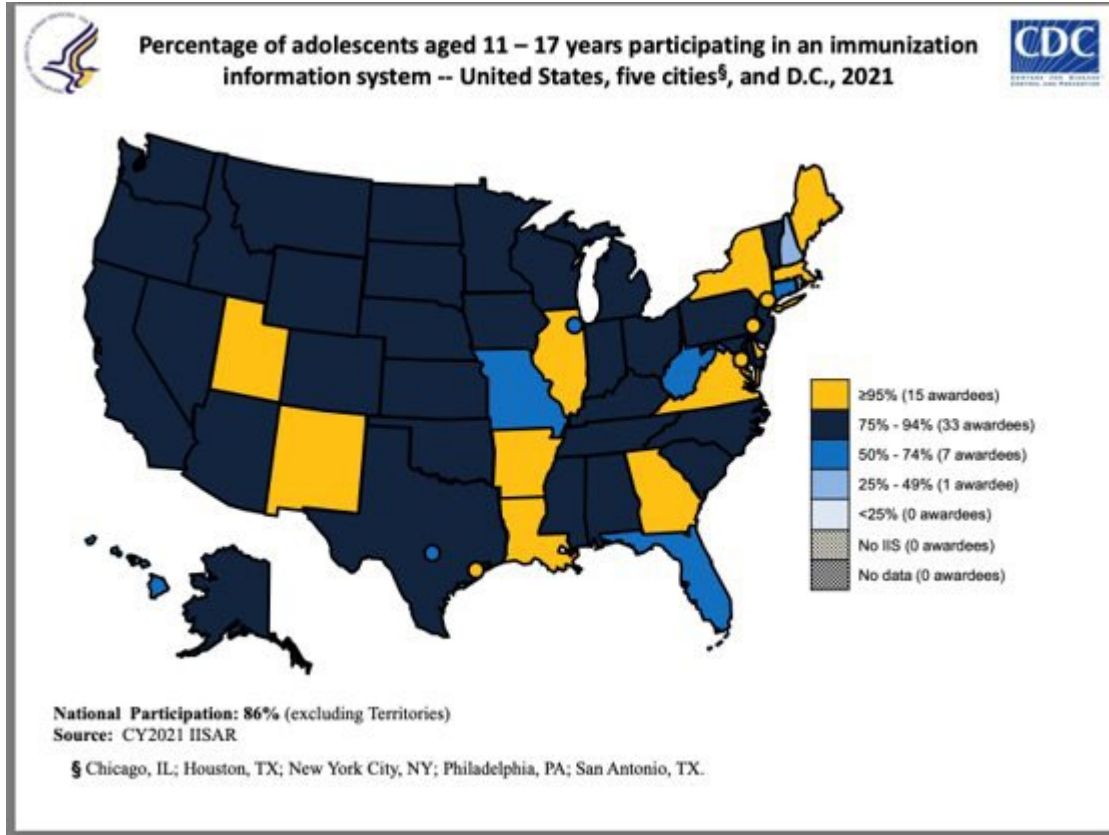
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Limitations of Immunization Information Systems (IIS)

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Statutes and policies

- No national immunization reporting law or policy that guides IIS operation
- Variable data capture
 - Which patients
 - What data about each patient
 - What immunization events
- Varying patient consent policies
- No uniform mechanism for enforcement

Federal laws

- Variable interpretations of HIPAA's public health exception (often erroneously) limit information sharing with IIS
- FERPA restricts what data an educational system can share with an IIS
- 2 separate systems separately collecting data on same population

Data Exchange

- Inability to easily and universally share data among jurisdictions despite adopted technology standards between IIS and EHRs
- Requirement of data sharing agreements between the IIS and each individual entity
- Challenges posed by individuals receiving care in jurisdictions where they do not permanently reside

Lack of Race/Ethnicity Data in Pediatric Patients



- ▶ CDC does not currently report race/ethnicity of vaccinated children
- ▶ National Immunization Survey–Child COVID Module
 - ▶ NIS-CCM is a nationally representative random-digit-dialed mobile telephone survey of households with children and adolescents aged 6 months–17 years
 - ▶ NIS-CCM interview data collected from 94,838 respondents during September 26, 2021–September 30, 2022, were used to assess racial and ethnic differences in COVID-19 vaccination coverage, parental intent to vaccinate, and behavioral and social drivers of vaccination among children and adolescents aged 5–17 years

AAP's Child Vaccination Across America

Date obtained from CDC's National Immunization Survey and is updated annually

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Child Vaccination Across America

Vaccines are important for the health of individual children and teens as well as entire communities. Some communities in the United States have experienced disease outbreaks because of lower immunization rates in their area. Higher immunization rates protect vulnerable children who are too young to be vaccinated or who cannot be vaccinated for medical reasons, making immunizations an essential response to COVID-19 and other diseases.

You can use this interactive map to explore your state's immunization rates and compare them with national rates. These data come from the CDC National Immunization Survey and are updated annually.



I-CARE

IIS Developed by IDPH – Implemented in 2007



- ▶ Features:
 - ▶ Allows providers to access immunization records of Illinoisans across the state
 - ▶ Ability to import vaccine records into EMRs that I- CARE interfaces with
 - ▶ Calculation of immunization due dates
 - ▶ Remind/Recall feature to track and notify patients of due dates
 - ▶ Assessment of immunization coverage levels by practice
 - ▶ Opt-out option for patients and providers

- ▶ Must be enrolled in I-CARE to administer COVID-19 and VFC vaccines

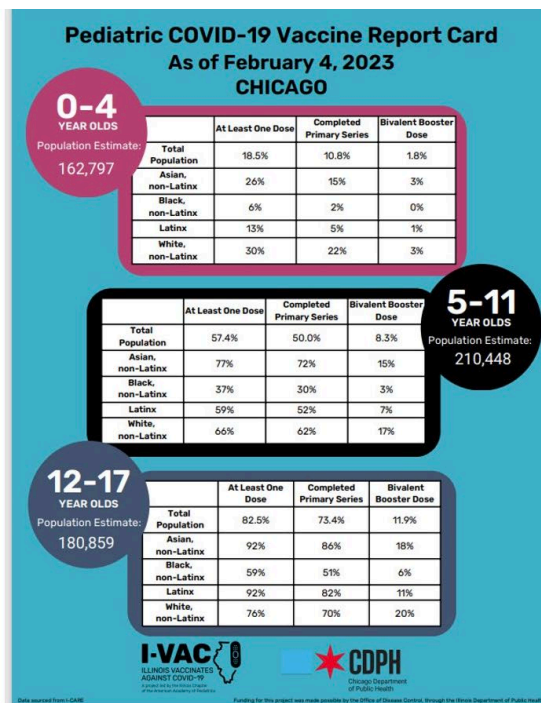
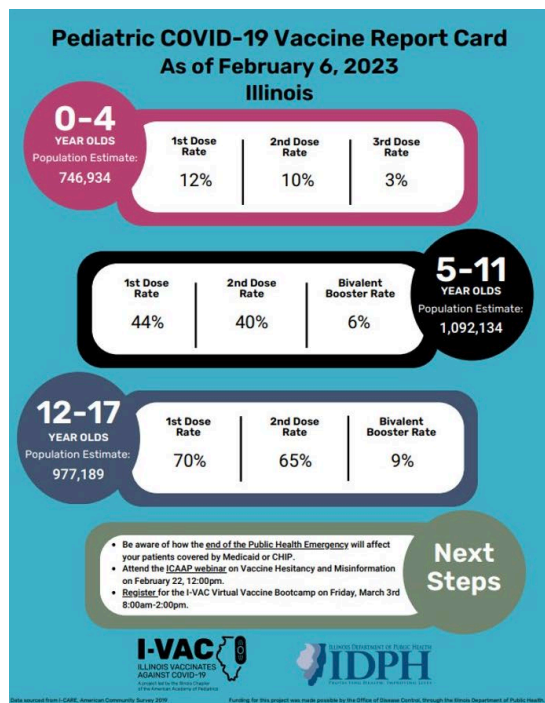
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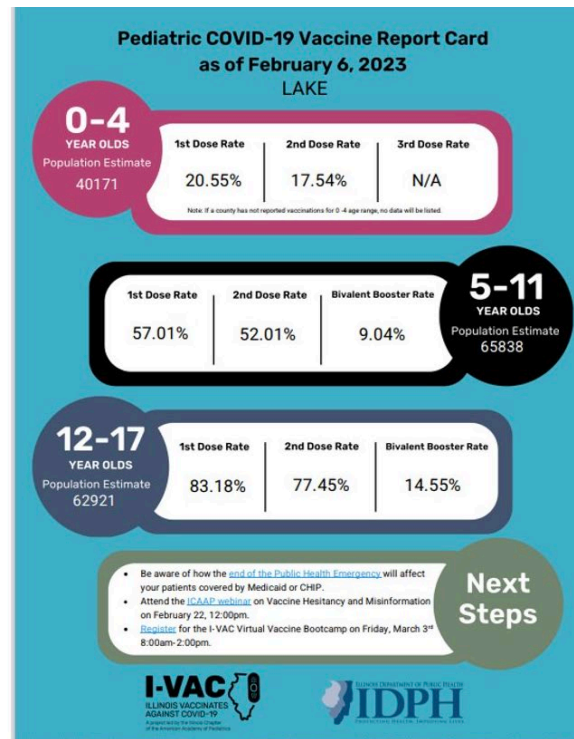
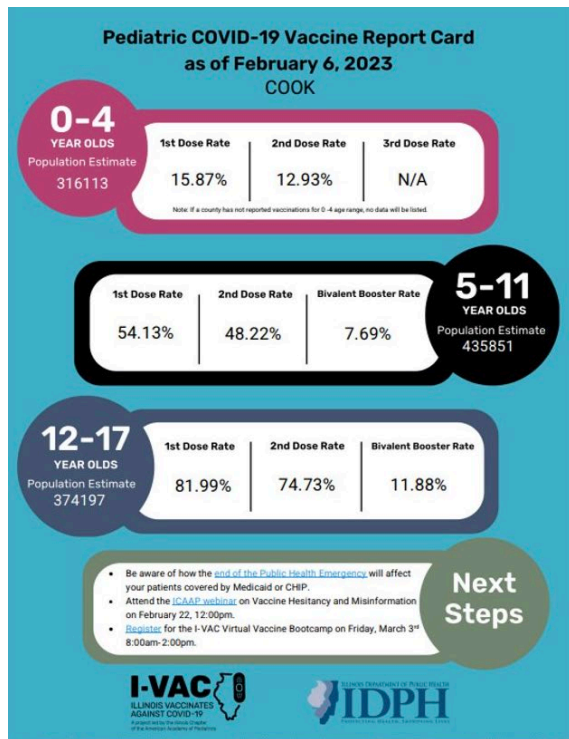
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Our EMR Woes





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Vaccinate with Confidence
Strategy to Reinforce Confidence in Covid-19 Vaccines

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<https://www.cdc.gov/vaccines/covid-19/downloads/vaccination-strategies.pdf>

Strong Recommendation

- ▶ A strong recommendation by a health care provider is a powerful motivator for patients to comply with vaccination recommendations
- ▶ A parent who receives a recommendation from their child's health care provider is four to five times more likely to get the HPV vaccine for their child
- ▶ When providers use a **presumptive approach** (one that assumes parents will choose to vaccinate), parents are more likely to accept vaccines than when a **participatory approach** (one that presents parents with a decision to make) is used

"Your child needs DTaP,
Hib, and Hepatitis B shots
today."

"Have you thought
about the shots your child
needs today?"



**Provider
Recommendation**



**Motivational
Interviewing**

¹(Lau M, Lin H, Flores G. Factors associated with human papillomavirus vaccine-series initiation and healthcare provider recommendation in U.S. adolescent females: 2007 National Survey of Children's Health. *Vaccine* 2012;30:3112–8.)

Reducing Missed Opportunities



- ▶ Providers make strong recommendations at every visit
- ▶ Vaccinate at every visit, not just well visits
- ▶ Standing orders have had positive effects on vaccination coverage among children and adults
- ▶ Vaccination reminders for providers improve vaccination coverage in the practice, and create a culture of vaccination





Figure 8

Most Parents Of Children Between The Ages Of 6 Months And 4 Years Have Not Talked To A Pediatrician About The COVID-19 Vaccine For Their Child

Have you talked to a pediatrician or other health care provider about the COVID-19 vaccine for your child between the ages of 6 months and 4 years old?



NOTE: Asked of parents or guardians of children between the ages of 6 months and 4 years. See topline for full question wording.

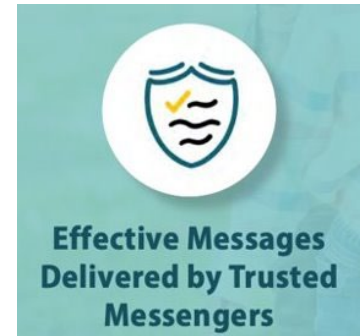
SOURCE: KFF COVID-19 Vaccine Monitor (July 7-17, 2022) • [PNG](#)

[KFF COVID-19
Vaccine Monitor](#)

Medical Mistrust

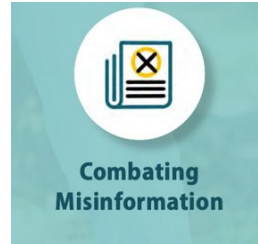


- ▶ Medical mistrust is higher among racial and ethnic minority adults, particularly Black adults, and higher medical mistrust is associated with reduced intent to receive vaccines
- ▶ Perceptions and experiences of racism in medical settings contribute to medical mistrust
- ▶ Strategies:
 - ▶ Improving health care provider communication with racial and ethnic minority patients
 - ▶ Increasing racial concordance and medical workforce diversity





- ▶ Patient attitudes toward vaccination, in particular, the belief that vaccines are harmful is one of the primary factors driving racial and ethnic vaccination disparities at the individual level
- ▶ Vaccine myths are difficult to combat
 - ▶ Debunk incorrect information with messages that reflect the worldview and affirm the values of the intended audience



"Getting the vaccine will keep you and your family safe," rather than call it "the right thing to do"

Vaccines for Children (VFC) Program



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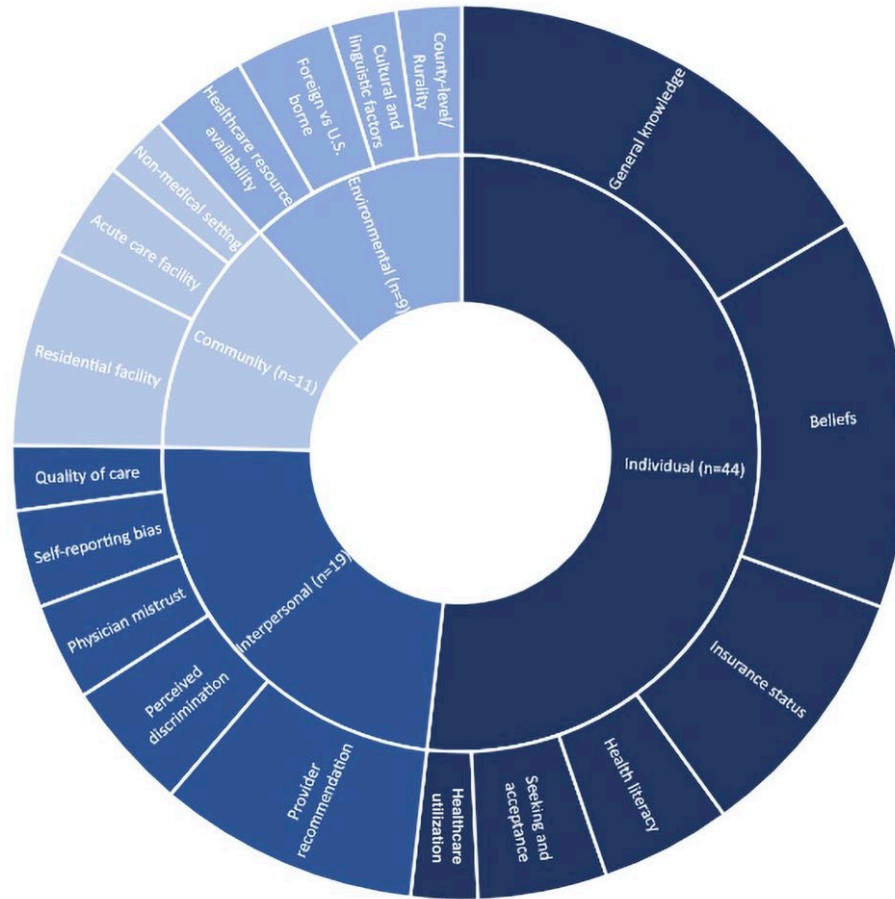
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- ▶ Cost can be a barrier to vaccination for many patients
 - ▶ In addition to evaluating the fee schedules for possible adjustments, providers should be knowledgeable about the VFC program, the state's Children's Health Insurance Program (CHIP), and other vaccine-focused programs available within their jurisdiction
- ▶ Children through 18 years of age who meet at least one of the following criteria are eligible to receive VFC vaccine:
 - ▶ Medicaid-eligible
 - ▶ Uninsured
 - ▶ American Indian or Alaska Native
 - ▶ Underinsured (only eligible to receive vaccines in a federally qualified health center or rural health clinic)



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- ▶ <https://www.cdc.gov/vaccines/pubs/pinkbook/strat.html>
- ▶ <https://www.kff.org/coronavirus-covid-19/dashboard/kff-covid-19-vaccine-monitor-dashboard/#equity>
- ▶ <https://www.kff.org/coronavirus-covid-19/issue-brief/latest-data-on-covid-19-vaccinations-by-race-ethnicity/>
- ▶ <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=22>
- ▶ National Research Council (US); Institute of Medicine (US).
- ▶ Washington (DC): National Academies Press (US); 2004.
- ▶ <https://publichealth.tulane.edu/blog/healthcare-equity/>

Upcoming Webinars

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- ▶ State & National Vaccine Policy and Advocacy (ICAAP Immunization Webinar Series)
 - ▶ Tuesday August 15th from 12:00PM – 1:00PM
- ▶ Illinois Vaccinates Against COVID-19 (I-VAC) Virtual Bootcamp
 - ▶ Thursday August 24th from 8:00AM – 12:30PM

Register at illinoisaap.org/events

Questions?

Thanks!