



Evidence-Based Strategies to Improve Immunization Rates

**Directly Provided CME/CE Activity by L.A. Care Health Plan
Live Webinar via Cisco WebEx
August 30, 2023, 12:00 – 1:00 pm PST**

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NCIRD, CDC**

Financial Disclosures

The following CME Planners and Faculty do not have any financial relationships with ineligible companies in the past 24 months:

- Leilanie Mercurio, L.A. Care PCE Program Manager, CME Planner.
- Johanna Gonzalez, L.A. Care Quality Improvement Project Manager, CME Planner.
- Andrew Kroger, MD, MPH, Medical Officer, National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention (CDC), CME Faculty.

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Commercial support was not received for this CME/CE activity.



Presenter Dr. Andrew Kroger

Andrew Kroger, M.D., M.P.H., is a medical officer for the National Center for Immunization and Respiratory Diseases at the Centers for Disease Control and Prevention (CDC). As one of the traveling trainers in the Health Education and Communication Branch, Dr. Kroger has given multiple presentations on topics ranging from immunization updates to pandemic influenza preparedness.

Most notably, Dr. Kroger is the author of the newest edition of the CDC's *General Best Practice Guidelines for Immunization*; and he is also involved with some of the new distance learning activities of the branch, including the Current Issues in Immunization Series that is delivered through webinar.

Dr. Kroger trained in pediatrics for two years at Rainbow Babies and Children's Hospital in Cleveland before transferring to Emory University where he specialized in public health and preventive medicine. He received joint Doctor of Medicine and Master of Public Health degrees from Yale Medical School and Yale University School of Epidemiology and Public Health with a concentration in international health.



Learning Objectives

At the completion of the activity, learners can:

- **Identify three (3) strategies intended to increase client demand for vaccinations.**
- **Select three (3) strategies intended to increase access to vaccinations.**
- **List five (5) provider based strategies that will increase coverage levels for vaccination.**

Overview

- Coverage levels in California
- Types of strategies
- Examples of strategies

Vaccination Coverage

 Vaccines site

VaxView

- [VaxView Home](#)
- [ChildVaxView](#)
- [SchoolVaxView](#)
- [TeenVaxView](#)
- [AdultVaxView](#)
- [FluVaxView](#)
- [COVIDVaxView](#)

- ### Related Links
- [Vaccines & Immunizations](#)
 - [Vaccine Safety](#)
 - [Immunization Action Coalition](#)
 - [AIM](#)
 - [Vaccine Education Center](#)

[Print](#)

[<< Back to Vaccines Home](#)



The VaxView websites provide vaccination coverage data for all ages. Monitoring coverage for recommended vaccinations across the country helps CDC assess how well local areas, states, and the nation are protected from vaccine-preventable diseases.

What is Vaccination Coverage and Why is it Important?

Vaccination coverage is the estimated percentage of people who have received specific vaccines. Health departments all over the United States monitor vaccination coverage to understand how well communities are protected from vaccine-preventable diseases. Vaccination coverage information is used to identify areas and groups with lower vaccination coverage so public health departments, health care partners, and schools can take action to help improve vaccination coverage and protect everyone from vaccine-preventable diseases.

- ChildVaxView**
- [SchoolVaxView](#)
- [TeenVaxView](#)
- [AdultVaxView](#)
- [FluVaxView](#)
- [COVIDVaxView](#)

[View data](#) on vaccination coverage for children 19 through 35 months old. Data are available for the vaccines routinely recommended for young children by the Advisory Committee on Immunization Practices (ACIP). These vaccines to protect young children from potentially serious diseases like measles and whooping cough. Data are available for local areas, states, HHS regions, and the nation from the National Immunization Survey (NIS). Sociodemographic data from the NIS are also available.

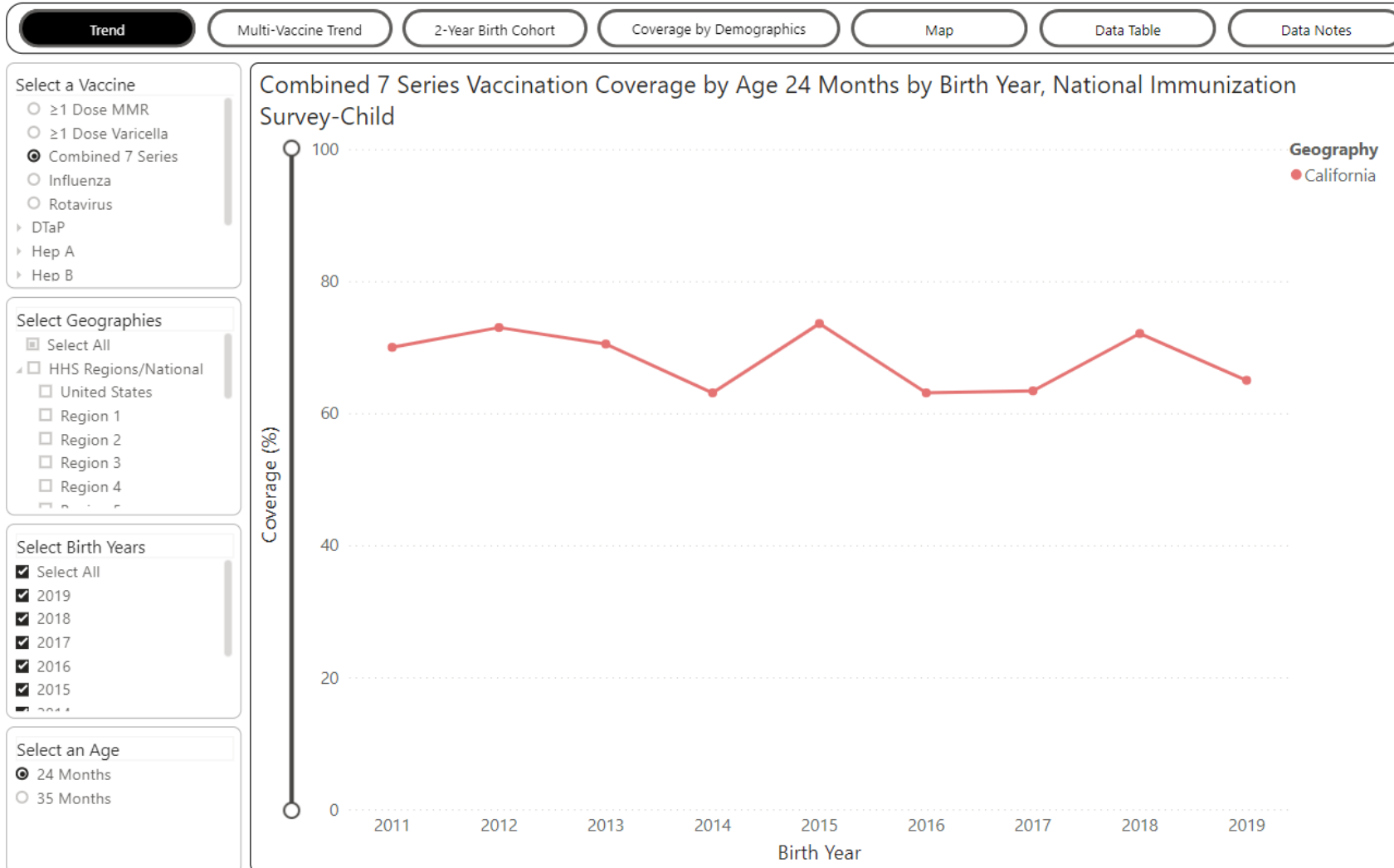


[How does CDC track vaccination coverage?](#)

[Related Pages](#)

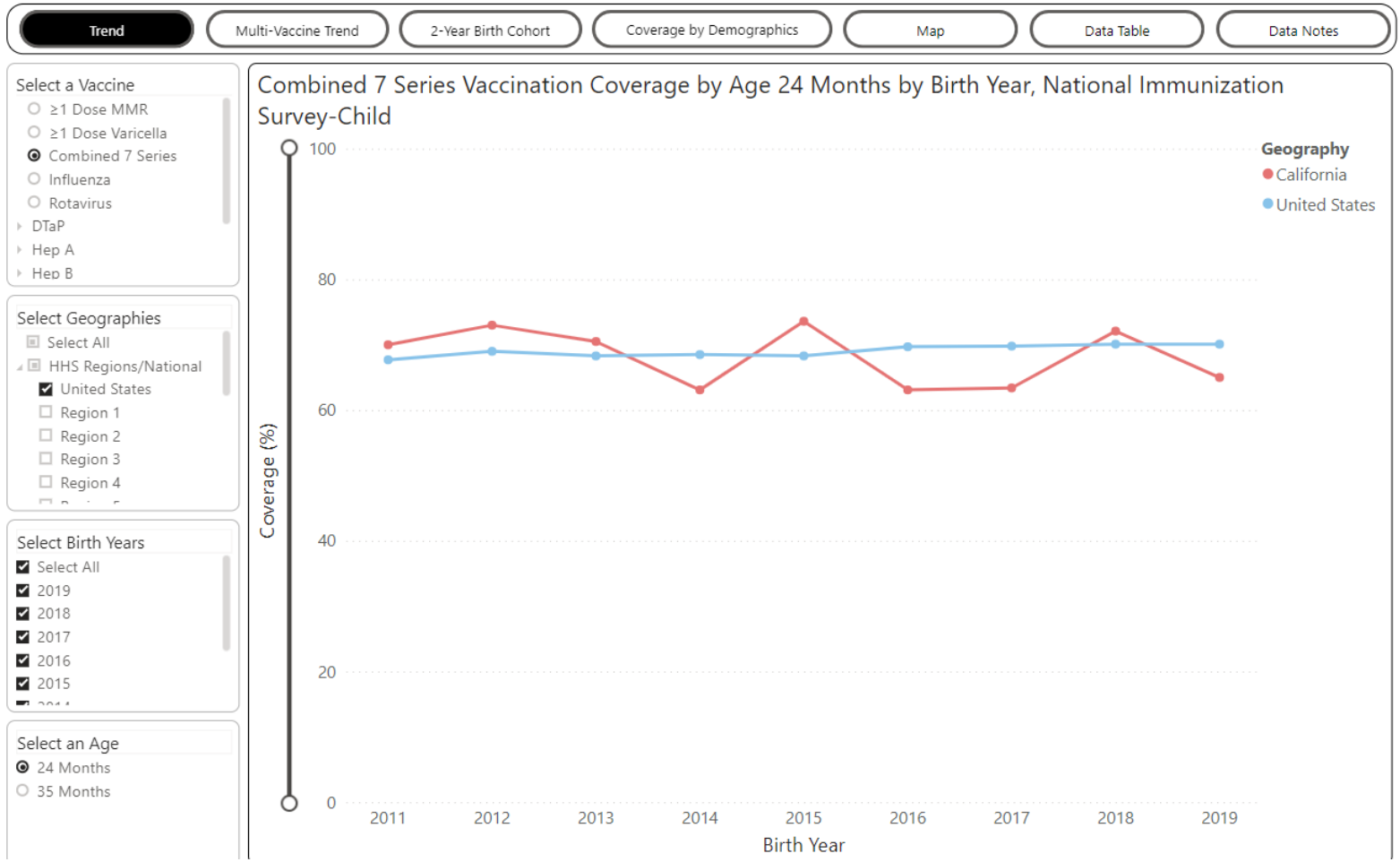


[User Quick Guide](#) | [Download Data Table](#) | [Back to ChildVaxView main page](#)





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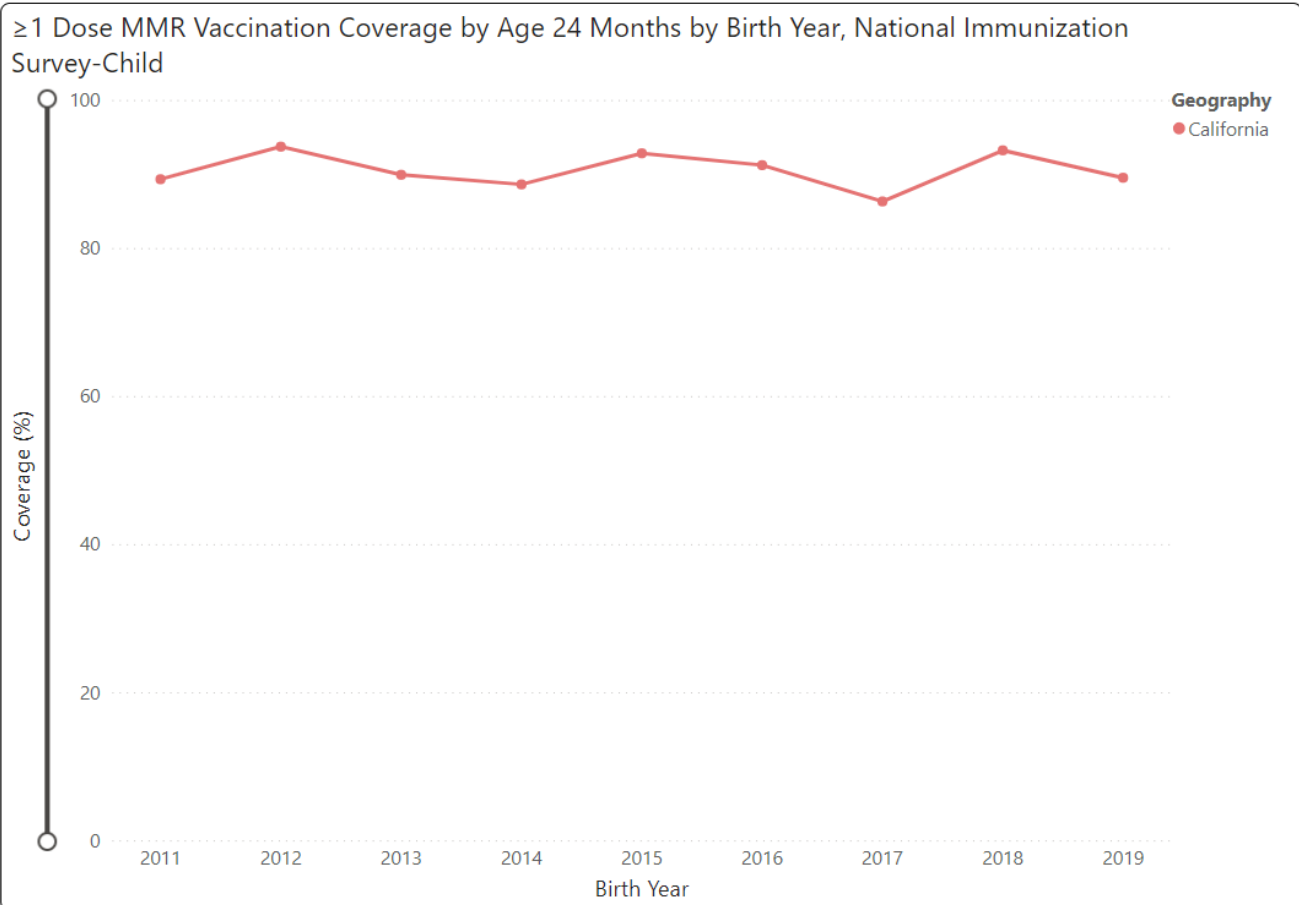
- Trend**
- Multi-Vaccine Trend
- 2-Year Birth Cohort
- Coverage by Demographics
- Map
- Data Table
- Data Notes

- Select a Vaccine
- ≥1 Dose MMR
 - ≥1 Dose Varicella
 - Combined 7 Series
 - Influenza
 - Rotavirus
 - ▶ DTaP
 - ▶ Hep A
 - ▶ Hep B

- Select Geographies
- Select All
 - HHS Regions/National
 - United States
 - Region 1
 - Region 2
 - Region 3
 - Region 4

- Select Birth Years
- Select All
 - 2019
 - 2018
 - 2017
 - 2016
 - 2015
 - 2014

- Select an Age
- 13 Months
 - 19 Months
 - 24 Months
 - 35 Months





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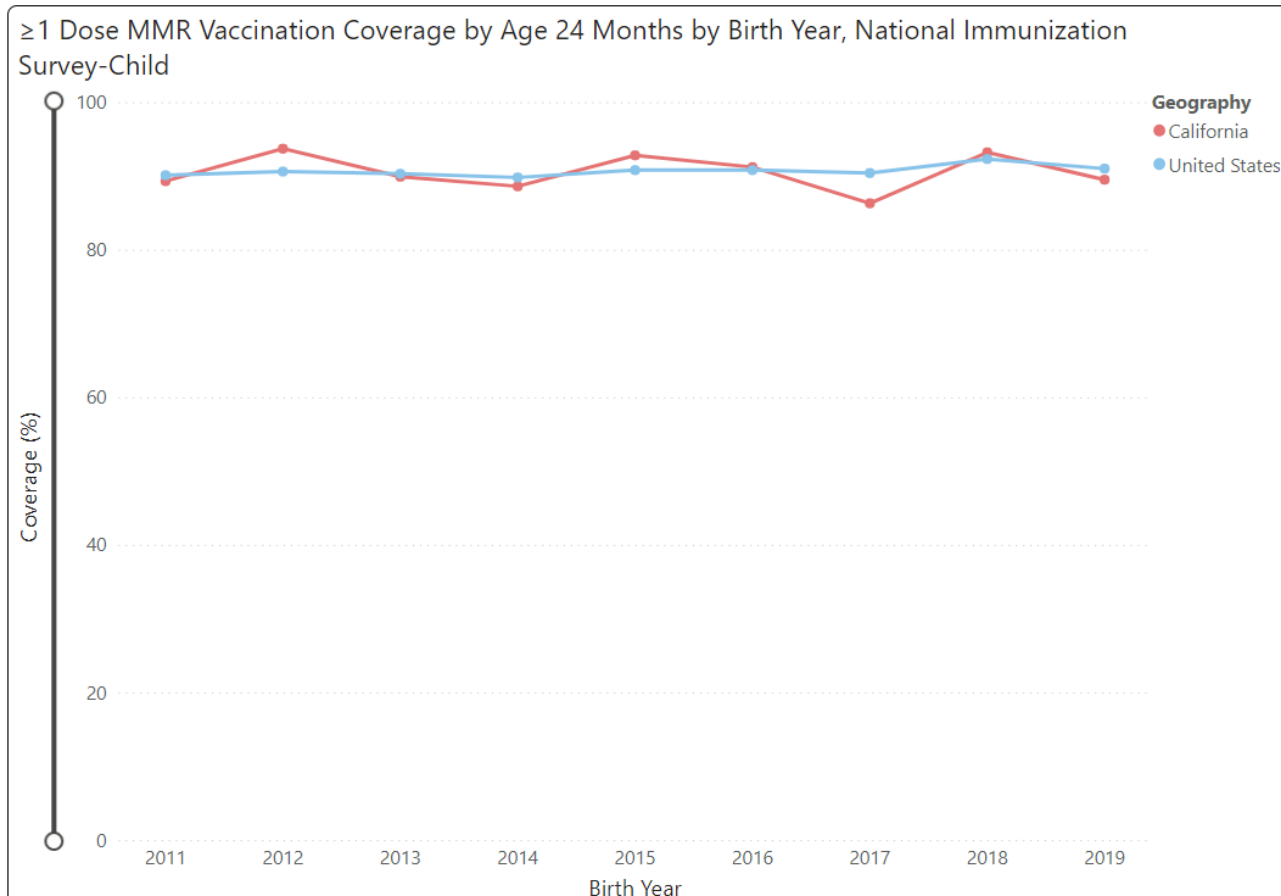
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- Select Birth Years
- Select All
 - 2019
 - 2018
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 - 2016
 - 2015
 - 2014

- Select an Age
- 13 Months
 - 19 Months
 - 24 Months
 - 35 Months



[Print](#)



[User Quick Guide](#) [PDF - 668 KB] | [Download Data Table](#) | [Back to FluView Interactive! main page](#)

- Single Season
- Place of Vaccination
- Trend
- Multi-Dimension Trend
- Multi-Geography Trend**
- State Map
- County Map
- Data Table
- Data Notes

Select a Vaccine

- Seasonal Influenza

Select Geographies

- Select All
- HHS Regions/National
 - United States
 - Region 1
 - Region 2
 - Region 3
 - Region 4
 - Region 5

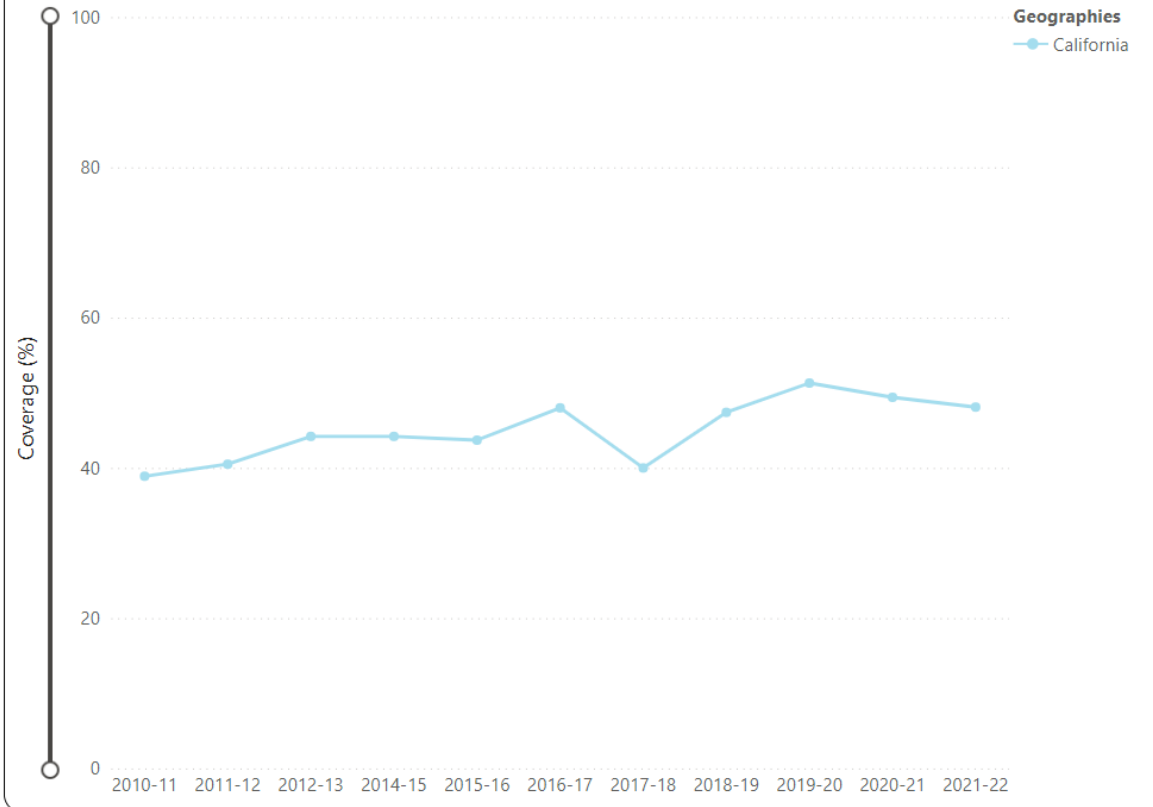
Select Seasons

- Select All
- 2021-22
- 2020-21
- 2019-20
- 2018-19
- 2017-18
- 2016-17

Select a Dimension

- Age
- Race/Ethnicity

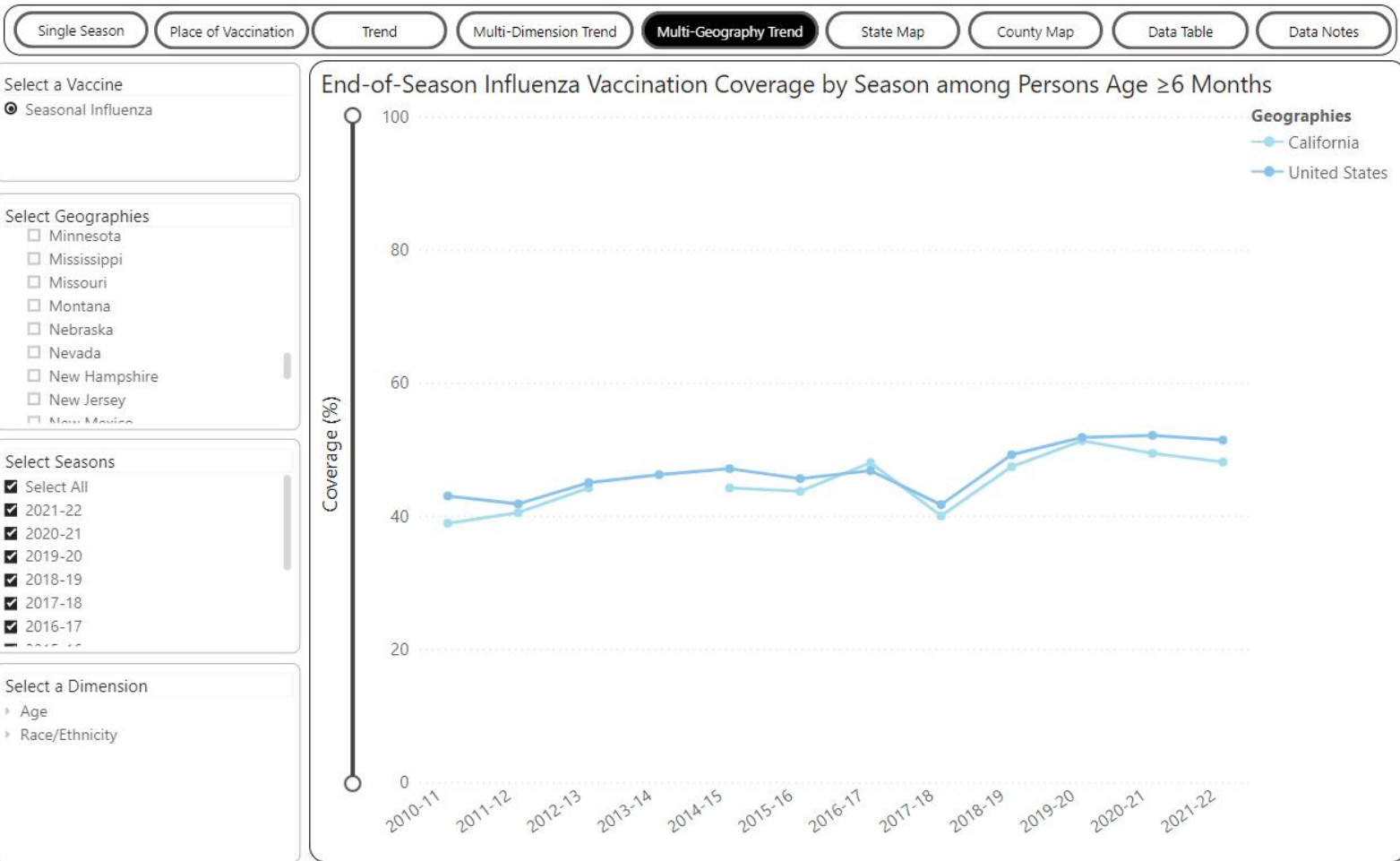
End-of-Season Influenza Vaccination Coverage by Season among Persons Age ≥6 Months



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Select a Vaccine

- Pneumococcal
- Zoster (Shingles)
- Tetanus

Select Geographies

- Select All
- HHS Regions/National
- States/Local Areas
 - Alabama
 - Alaska
 - Arizona
 - ...

Select an Age Group

- 18-64 Years at Increased Ri...
- ≥65 Years

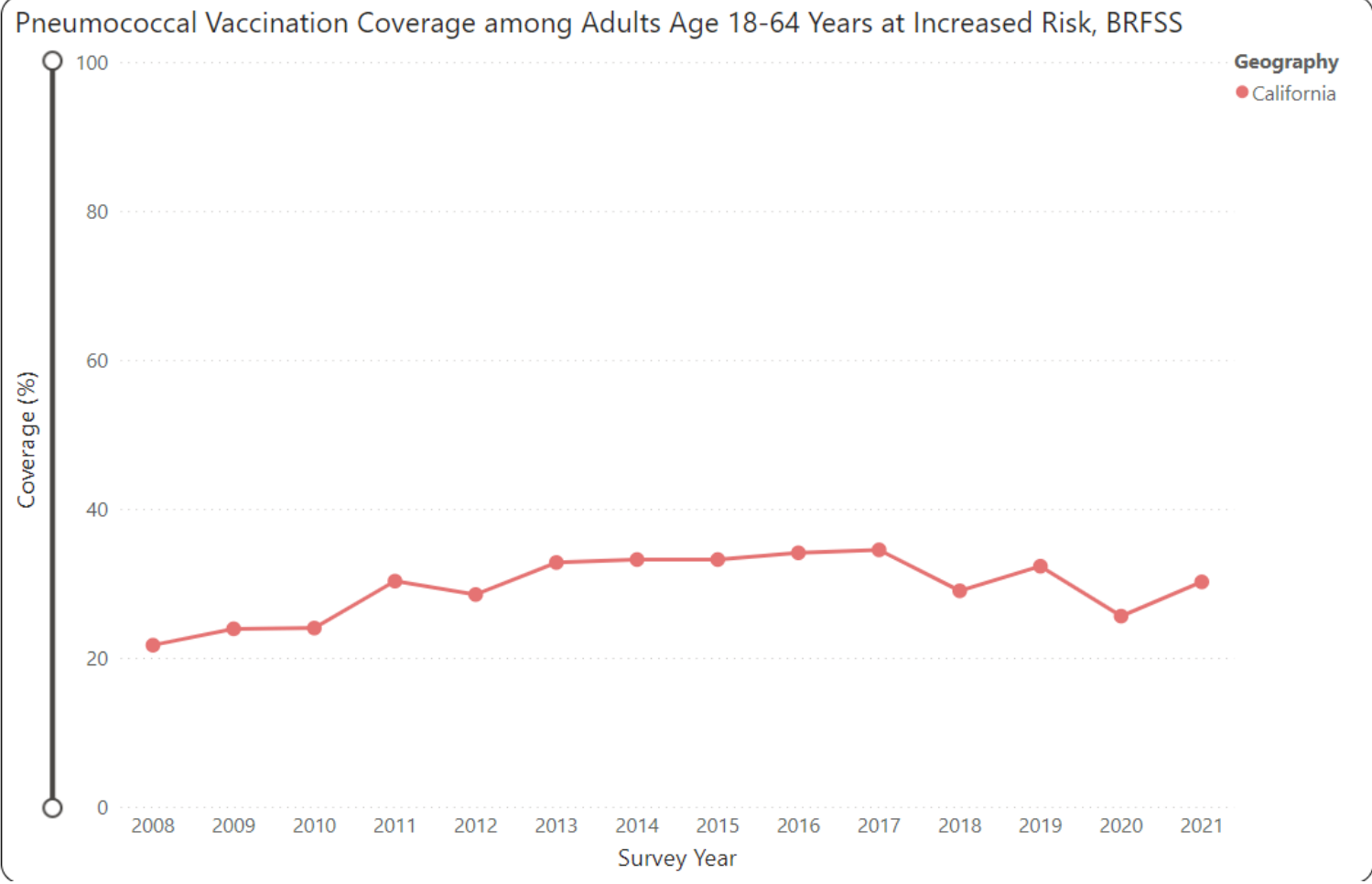
Select a Race/Ethnicity Group

- Overall
- Black, Non-Hispanic
- Hispanic
- Other or Multiple Races, N...
- White, Non-Hispanic

Select Survey Years

- 2019
- 2018
- 2017
- 2016
- 2015

Trend Multi-Dimension Trend State Map County Map Data Table Data Notes





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Select a Vaccine

- Pneumococcal
- Zoster (Shingles)
- Tetanus

Select Geographies

- States/Local Areas
 - Alabama
 - Alaska
 - Arizona
 - Arkansas
 - California
 - Colorado

Select an Age Group

- 18-64 Years at Increased Ri...
- ≥65 Years

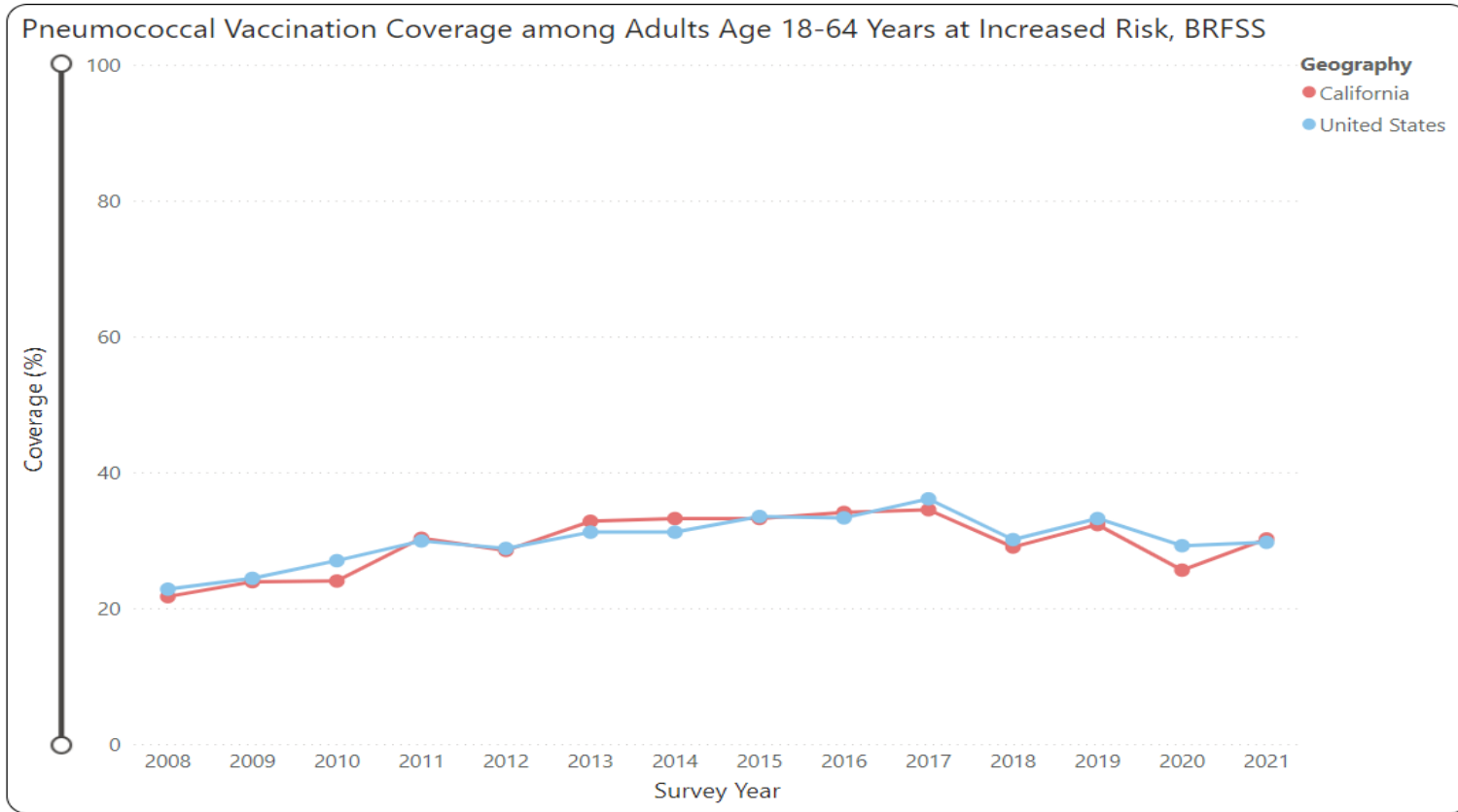
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- 2019
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Trend | Multi-Dimension Trend | State Map | County Map | Data Table | Data Notes



Immunization Strategies



Strategy Categories

- **Enhance access**
 - Expand access
 - Missed opportunities: simultaneous vaccination
 - Missed opportunities: vaccinating with mild illness
 - Missed opportunities: vaccinating with disease convalescence
- **Provider/System Interventions**
 - Standing orders
 - Provider reminders
 - Provider recommendation
 - Provider feedback
 - Provider education
- **Combining two or more provider/system interventions**
- **Increase community demand**
 - Patient reminders
 - Patient incentives
 - Patient education
- **Combining two or more community demand interventions**

Enhance Access

1. Expand Access



We Now Offer
**Saturday
Immunization
Clinics**

From 10:00 a.m.
to 2:00 p.m.

*Ask about shots
you may need at
the check-in desk.*

- Clinics on weekends
- Creating vaccine-only clinics
- Drop-in or express-lane vaccination services

2. Avoiding Missed Opportunities

- **Missed opportunity: a health care encounter in which a person is eligible to receive vaccination but is not vaccinated completely**
- **Reasons cited for missed opportunities:**
 - Lack of simultaneous administration
 - Invalid contraindications
 - Mild illness – VACCINATE DURING SICK VISITS!
 - Disease convalescence

2a. Avoiding Missed Opportunities: Simultaneous Vaccination

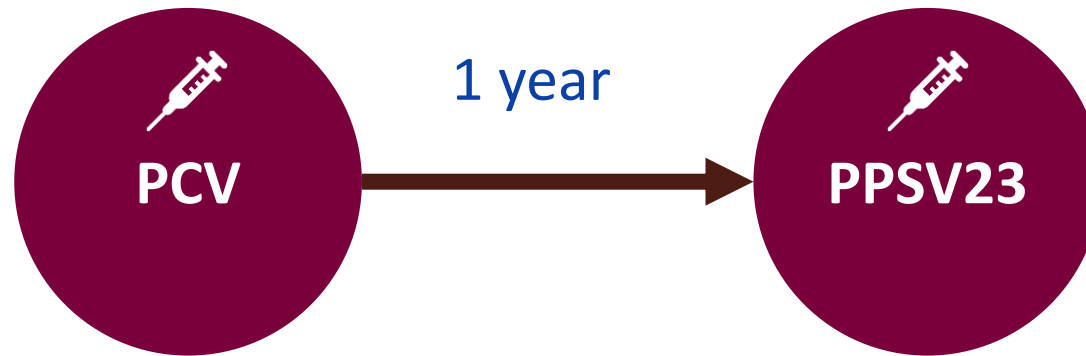


Simultaneous Administration

- General Rule
 - **All vaccines** can be administered **at the same visit** as all other vaccines.
- Exceptions:
 - **PCV and PPSV23**: give PCV first
 - **MenACWY-D (Menactra only) and PCV** in asplenic or HIV-infected persons (children OR adults): give PCV first

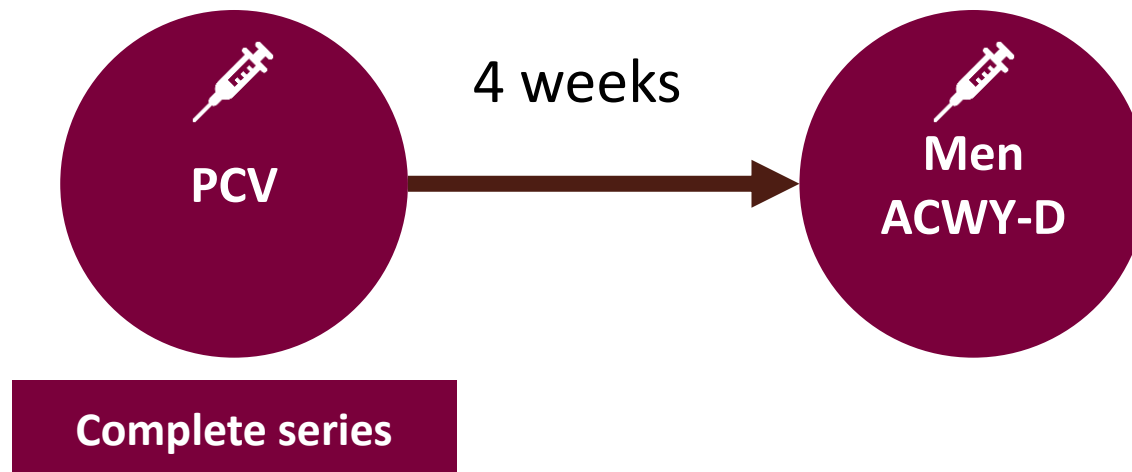
Simultaneous Administration

- PCV and PPSV23: give PCV first



Simultaneous Administration

- MenACWY-D (Menactra only) and PCV in asplenic or HIV-infected persons: give PCV first

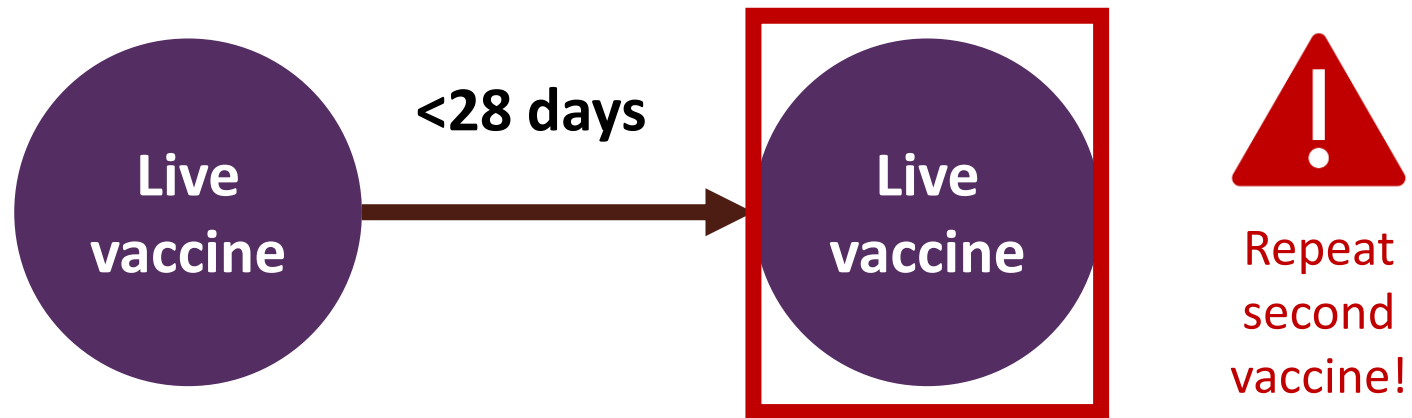


Non-Simultaneous Administration: Live-Vaccine Effectiveness

Combination	Minimum interval
2 live injected OR 1 live injected and 1 intranasal influenza vaccine	4 weeks
All other vaccines	None
One exception: Menactra and DTaP	6 months

Spacing of Live Vaccines Not Given Simultaneously

- If 2 live parenteral or intranasal vaccines are given **less than 28 days** apart, the vaccine given **second** should be **repeated**.



- Antibody response from first vaccine **interferes with replication** of second vaccine.

2b. Avoid Missed Opportunities: Avoid Invalid Contraindications



2c. Avoid Missed Opportunities: Invalid Contraindications

- 3. Mild illness
 - Vaccinate with
 - Low -grade fever
 - Upper respiratory infection
 - Otitis media
 - Mild diarrhea
- 4. Disease convalescence



Provider System Intervention

3. Standing Orders

- **Standing orders authorize nurses, pharmacists, and other appropriately trained health care personnel, where allowed by state law, to assess a patient's immunization status and administer vaccinations according to a protocol approved by an institution, physician, or other authorized clinician.**
- **Standing orders enable staff to assess and vaccinate patients without the need for clinician examination or direct order from the attending provider at the time of the visit.**

4. Provider Prompts

- Communication to health care providers that a patient's immunizations are due soon or past due
- Examples include:
 - Computer-generated list
 - Stamped note in the chart
 - “Immunization Due” clip on chart
 - Electronic reminder in an electronic medical record



5. Strong Vaccine Recommendation

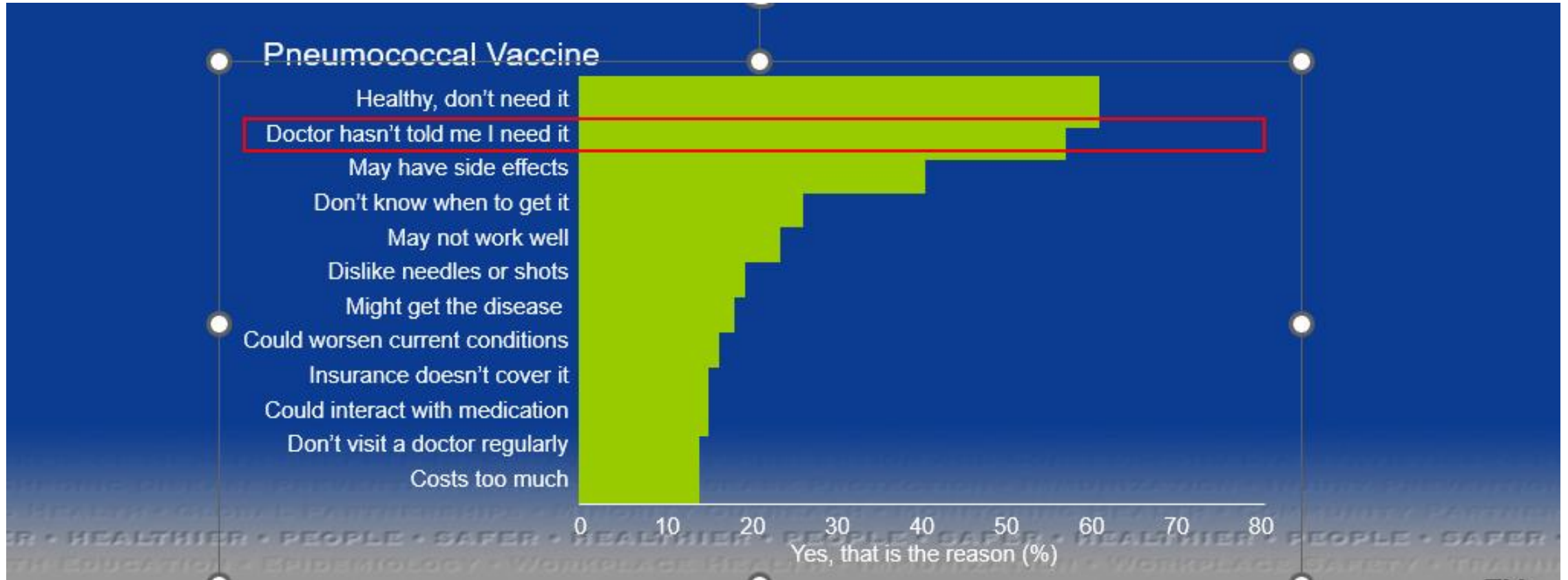
- **Recommendation from a health care provider remains the number one reason parents (or adult patients) decide to vaccinate**

- A parent who receives a recommendation from their child's health care provider is 4-5x more likely to get the HPV vaccine for their child.
- Initially reluctant adults are likely to receive an influenza vaccination when the health care provider's opinion of the vaccine is positive.

- **Take time to answer questions**

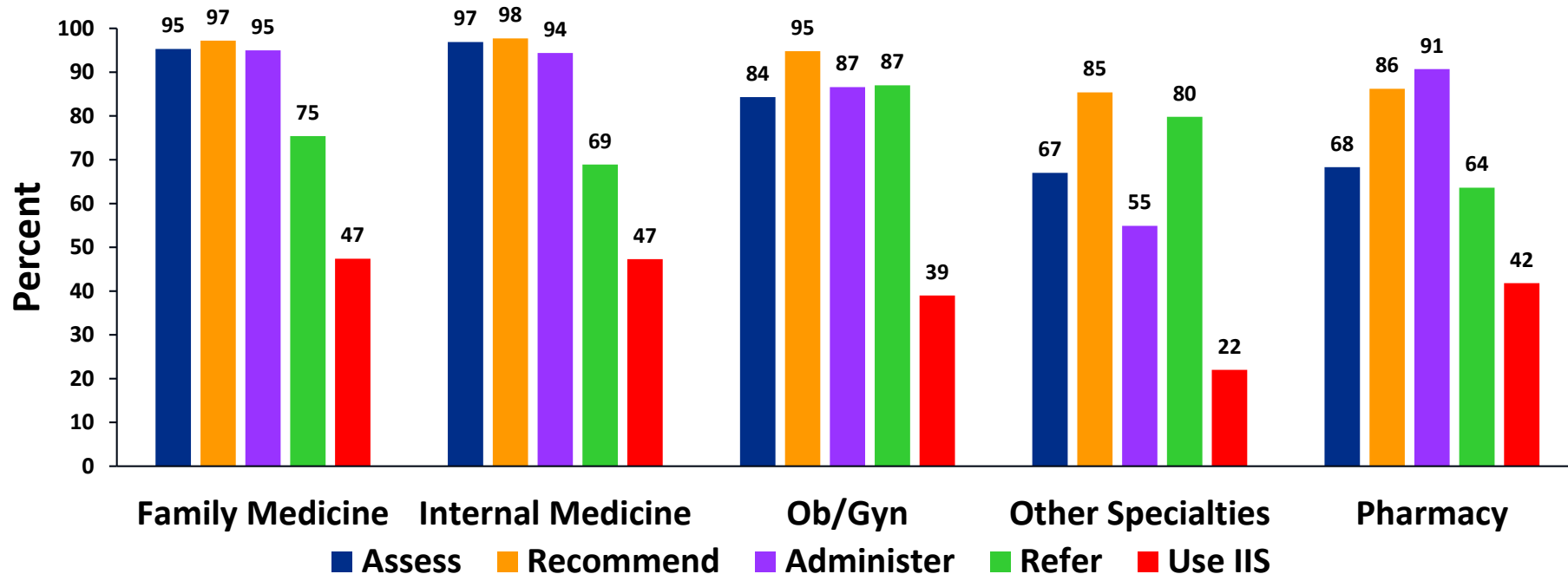


Patients Expect Clinician Recommendations



The Provider Recommendation

Reported Implementation of Standards Components Among HCPs, by Provider Specialty, United States, 2016 (N=1,918)



6. Provider Feedback

ESSENTIAL PROGRAM: Immunization Quality Improvement for Providers



■ Immunization Quality Improvement for Providers (IQIP)

- CDC's national, Vaccines for Children (VFC) provider-level immunization quality improvement (QI) program
- Promotes and supports implementation of provider-level strategies designed to increase on-time vaccination among children and adolescents

IQIP Site Visit

- **Observe the provider's vaccination workflow**
- **Review vaccination coverage**
- **Select appropriate quality improvement strategies**
- **Provide technical assistance to support implementation of selected quality improvement strategies**
- **Create a strategy implementation plan with action items that are tailored to meet the provider's needs**

Benefits of IQIP

- **Addressing burden of vaccine-preventable diseases**
- **Catching up on well-child visits and recommended vaccinations**
- **Reducing missed opportunities**
- **Increasing vaccine confidence**
- **Using practice-based coverage assessments and performance improvement**

7. Provider Education

The screenshot shows the CDC Vaccines Education website. At the top, the URL is <https://www.cdc.gov/vaccines/ed/index.html>. The CDC logo and name are on the left, and there are links for [Español](#) and [Other Languages](#) on the right. A search bar and a dropdown menu for 'Vaccines site' are also present. The main heading is 'Immunization Education & Training'. On the left is a navigation menu with items like 'Education and Training Home', 'You Call The Shots', 'Current Issues in Immunization Webinar (CIIW)', 'Immunization Courses', 'Continuing Education', 'Immunization MMWRs', 'Pink Book Webinars', 'Patient Education', 'Provider Education Resources', 'Quality Improvement Projects', and 'Workforce Improvement Projects'. Below the menu is a 'Related Link' section for 'Vaccines & Immunizations'. The main content area features a 'Print' link, a 'Back to Vaccines Home' link, a large image of a doctor at a laptop, and a text block stating: 'CDC offers numerous education and training programs for healthcare personnel. A variety of topics and formats are available. All are based on vaccine recommendations made by the Advisory Committee on Immunization Practice (ACIP). Physicians, nurses, health educators, pharmacists, and other healthcare professionals are invited to apply for continuing education credits/contact hours, when available.' To the right of the image is a teal box titled 'COVID-19 Vaccination Training Programs & Reference Materials' with a 'More' button. Below these are four smaller boxes: 'You Call The Shots' (with a refresh icon), 'Current Issues in Immunization NetConference (CIINC)' (with a play icon), 'Immunization Courses' (with a calendar icon), and 'Patient Education' (with a plus icon).

Provider Education

- **Paucity of data on this strategy when used alone**
- **Demonstrable evidence when used in combination with other strategies**
 - Combined with provider assessment and feedback – median rise of 17% in vaccination coverage
 - Combined with provider reminder/recall – median rise of 14% in coverage

Combination strategies for High-risk Vaccination – Pneumococcal Vaccination

- Enhance access + provider/system intervention
- Enhance access + increase community demand
- Enhance access + provider/system intervention + increase community demand
 - Increase in coverage of 49 percentage points

Increase Consumer Demand

8. Patient Reminder/Recall

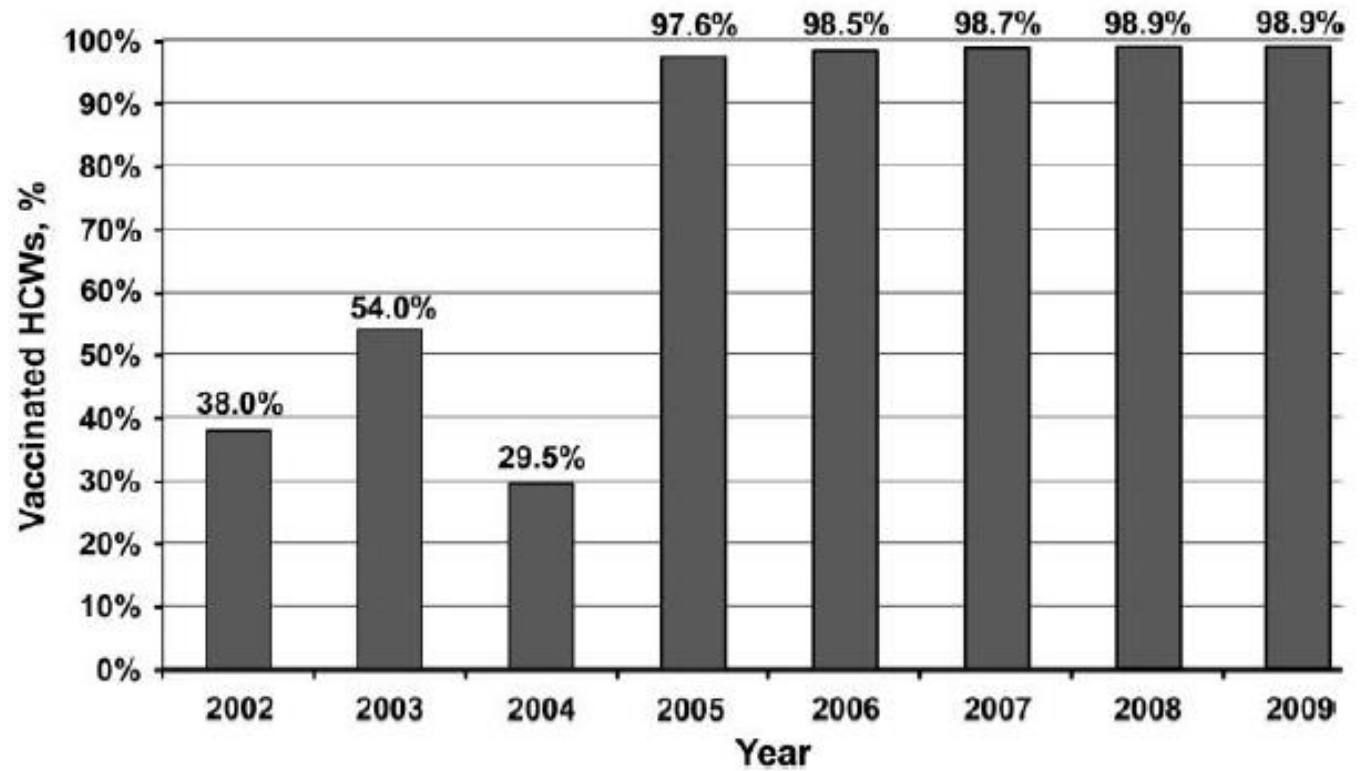
- **Reminder**—notification that immunizations are due soon
- **Recall**—notification that immunizations are past due
- **Content of message and technique of delivery vary**
- **Reminders and recall have been found to be effective**
- **Increase in vaccination coverage of 8 percentage points**



9. Patient Incentives

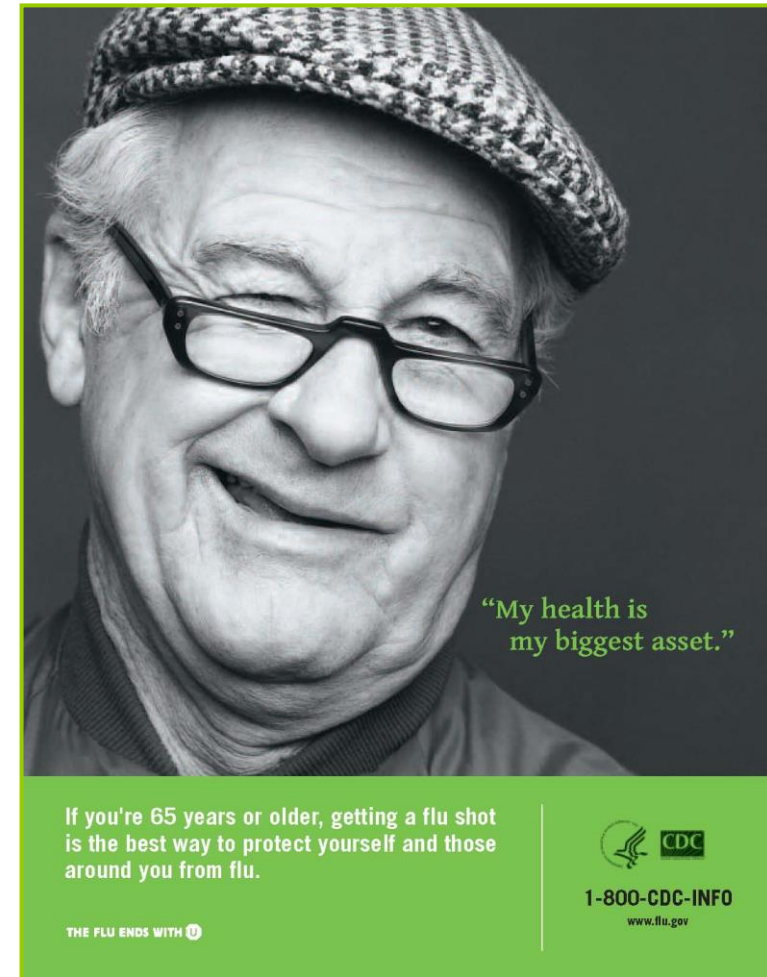
- State laws / mandates

Impact of Mandatory HCP Influenza
Vaccination Requirement – Virginia Mason
Medical Center



10. Patient Education

- Empower patients to keep track of their vaccines
- Provide patients information on vaccinations
- Can include posters, brochures, videos, newsletters, classes or lectures
- Should improve understanding and generate demand for vaccines



Resources



Resources

- **General Best Practice Guidelines for Immunization**
 - [ACIP General Best Practice Guidelines for Immunization | CDC](#)
- **VaxView**
 - [VaxView Vaccination Coverage | CDC](#)
- **Immunization Quality Improvement for Providers**
 - [Immunization Quality Improvement for Providers | CDC](#)
- **Briss PA, Rodewald LE, Hinman AR, et. al. Reviews of Evidence Regarding Interventions to Improve Vaccination Coverage in Children, Adolescents, and Adults. American Journal of Preventive Medicine. 2000;18(1S); pgs. 97-140.**
- **Johnson DR, Nichol KL, Lipczynski K, Barriers to adult immunization. American Journal of Medicine: 2008; S28-S35.**
- **Ndiaye SM, Hopkins DP, Shefer AM, et. al. Interventions to Improve Influenza, Pneumococcal Polysaccharide, and Hepatitis B Vaccination Coverage Among High-Risk Adults: A Systematic Review, Am J Prev Med 2005;28(5S);pp.248-275.**
- **Rakita RM et al. *Infect Cont Hosp Epi* 2010;31:881-9**

Q & A Session



L.A. Care PCE Program Friendly Reminders

Friendly Reminder, a survey will pop up on your web browser after the webinar ends. Please do not close your web browser and wait a few seconds, and please complete the online survey.

Please note: *the online survey may appear in another window or tab after the webinar ends.*

Upon completion of the online survey, you will receive the pdf CME or CE certificate based on your credential, verification of name and attendance duration time of at least 45 minutes, **within two (2) weeks after today's webinar.**

Webinar participants will only have up to two weeks after webinar date to email Johanna Gonzalez at jgonzalez4@lacare.org to request the evaluation form if the online survey is not completed yet. No name, no survey or completed evaluation and less than 45 minutes attendance duration time via log in means No CME or CE credit, No CME or CE certificate.

Thank you!

