



Covered California is recommending childhood immunization status as one of four core quality measures for the Quality Transformation Initiative, which seeks to dramatically improve care by establishing significant and increasing financial consequences for Covered California's health plans with poor quality performance beginning in 2023. Importantly, this measure was chosen in consultation with Medi-Cal and CalPERS with the intent of aligning our quality accountability efforts.

Disease prevention is key to keeping people healthy, both individually and as a community. One of the most basic methods for the prevention of disease is immunization, the safest and most effective tool for protecting against infectious diseases. Due to the success of vaccines in controlling many infectious diseases, the Centers for Disease Control and Prevention (CDC) identified vaccines as one of the ten great public health achievements of the 20th century.

Childhood vaccines protect children from several serious and potentially life-threatening diseases at a time in their lives when they are most vulnerable. For example, the Centers for Disease Control and Prevention (CDC) estimates that in the United States one-third of lifelong hepatitis B virus infections – which can lead to cirrhosis and liver cancer – resulted from infections acquired during infancy or during the first few years of life.

Prior to the advent of immunizations, serious complications from diseases such as polio, diphtheria, tetanus, hepatitis, measles, mumps, and rubella were common. This included pneumonia, heart and kidney damage, blindness, deafness, and neurologic diseases such as meningitis, encephalitis, and paralysis.

When vaccination rates decline, these diseases can re-emerge quickly. While the rates of vaccine-preventable diseases are very low in the United States, the viruses and bacteria that cause these infectious diseases still exist. Importantly, without proper immunization, the potential to pass on vaccine-preventable diseases to unprotected people increases drastically. Overall, approximately 300 children in the United States die each year from vaccine preventable diseases.

In 2019, more than 30% of children in the United States did not receive the recommended vaccines by age 24 months of age. Deferred care due to the COVID-19 pandemic has had a significant impact on receipt of childhood immunizations; for example, in California, 15% fewer children under age 3 have received the first dose MMR in 2020 compared to 2019.

Evidence has shown that children at greatest risk for under-immunization include African Americans and Latinos, those living below the poverty level, those who live in inner-city or rural areas, and those who are uninsured.

On an annual basis in the United States, childhood vaccines have the following benefits:

- Prevention of 10.5 million infectious diseases nationally and 1.3 million in California¹.
- For every \$1 spent on immunizations, as much as \$29 can be saved in direct and indirect costs, such as missed school and work.
- Net economic and societal cost savings of \$9.9 billion and \$43.3 billion, respectively.

Covered California Health Plan Performance. Currently Covered California uses the Childhood Immunization Status—Combination 3 (NQF #0038) measure to evaluate childhood immunization performance. Starting in measurement year 2022, Covered California will

transition to using the Combination 10 measure to evaluate childhood immunization performance. In 2019, using Combination 3 data, five out of 10 health plan products performed below the 25th percentile. Only two performed at or above the 50th percentile nationally, with none at or above the 90th percentile. Overall, 57% of pediatric enrollees received below average care. Performance below the 50th percentile means that fewer than 77% of children achieved appropriate immunization status.

In summary, despite the established guidelines, documented benefits, and safety profiles associated with childhood immunization, a significant gap in performance still exists. For these reasons, leading health care organizations and professionals widely agree that there is a critical need to focus on increasing childhood immunization rates in the United States. Covered California's inclusion of a childhood immunization quality measure in the Quality Transformation Initiative is an important driver for improved population health in California.

References

1. Mayo Foundation for Medical Education and Research. (2021, April 22). *Vaccines: Tough questions, straight answers*. Mayo Clinic. Retrieved January 7, 2022, from <https://www.mayoclinic.org/healthy-lifestyle/infant-and-toddler-health/in-depth/vaccines/art-20048334>
2. Committee on the Assessment of Studies of Health Outcomes Related to the Recommended Childhood Immunization Schedule, Board on Population Health and Public Health Practice, & Institute of Medicine. (2013). *The Childhood Immunization Schedule and Safety: Stakeholder Concerns, Scientific Evidence, and Future Studies*. National Academies Press (US).
3. Office of Disease Prevention and Health Promotion. (2021, December 28). *Immunization and infectious diseases*. Immunization and Infectious Diseases | Healthy People 2020. Retrieved January 7, 2022, from <https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases?topicid=23>
4. United Health Foundation. *Explore childhood immunizations in the United States: 2021 annual report*. America's Health Rankings. Retrieved January 7, 2022, from https://www.americashealthrankings.org/explore/annual/measure/Immunize_b/state/ALL
5. California Department of Health Care Services. (2021, March 22). *Childhood immunization status-combination 3*. Childhood Immunization Status. Retrieved January 7, 2022, from <https://www.dhcs.ca.gov/dataandstats/Pages/ChildhoodImmunizationStatus.aspx>
6. Rosenthal, N. A. (2015). Infections, chronic disease, and the epidemiological transition: A new perspective. *Clinical Infectious Diseases*, 61(3), 489–490. <https://doi.org/10.1093/cid/civ280>
7. Wahdan, M. H. (1996). *The epidemiological transition*. World Health Organization. Retrieved January 7, 2022, from <http://www.emro.who.int/emhj-volume-2-1996/volume-2-issue-1/article2.html#:~:text=It%20used%20to%20be%20thought,dominated%20the%20causes%20of%20death>
8. California Department of Public Health. *Fill the gaps. keep immunizing your patients!* Drop in Immunizations During COVID-19 – California Vaccines for Children (VFC). Retrieved January 7, 2022, from <https://eziz.org/home/immunization-drop/>
9. Diekema, D. S. (2012). Improving childhood vaccination rates. *New England Journal of Medicine*, 366(5), 391–393. <https://doi.org/10.1056/nejmp1113008>
10. Hill, H. A., Yankey, D., Elam-Evans, L. D., Singleton, J. A., & Sterrett, N. (2021). Vaccination coverage by age 24 months among children born in 2017 and 2018 — national immunization survey-child, United States, 2018–2020. *MMWR. Morbidity and Mortality Weekly Report*, 70(41), 1435–1440. <https://doi.org/10.15585/mmwr.mm7041a1>

¹ California data based on application of national rates to California on a population basis.