

Childhood Immunizations

Vaccination saves lives and has substantially reduced illness, disability, and death from several childhood diseases such as measles, mumps, and pertussis. The National Immunization Survey (NIS) provides important information on vaccine coverage at the state and national levels¹, and the Washington State Immunization Information System (WA IIS) captures geographic variations in vaccine coverage within the state.²

Among children 19–35 months old in Washington State, the NIS-estimated vaccination coverage rate for the 4:3:1:3:3:1:4 series (see [Technical Notes](#)) in 2015 was 77% ($\pm 6\%$), statistically similar to the 2015 national coverage rate of 72% ($\pm 1\%$). Washington's estimated childhood vaccination estimates were similar for children in families with incomes above and below the poverty level.

DOH, along with state, local, tribal, community and legislative partners, is working to increase childhood vaccination coverage through universal access to immunizations, tracking immunizations, collaborating with healthcare plans, and providing information and resources to parents and providers.



3 in 4

Washington children 19-35 months old receive required vaccinations



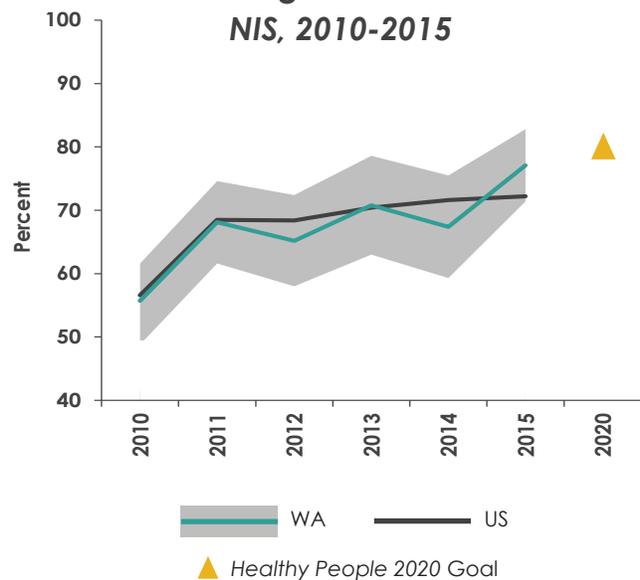
In Washington, vaccine coverage for 19-35 month olds has been increasing since 2010



Time Trends

- Similar to the United States, Washington's coverage rate for the 4:3:1:3:3:1:4 vaccine series has shown an upward trend since 2010.
- Despite improvements, neither Washington nor the U.S. overall has met the *Healthy People 2020* target of 80% coverage.

**Percentage of children 19-35 months who received recommended vaccines for 4:3:1:3:3:1:4
Washington State & US
NIS, 2010-2015**



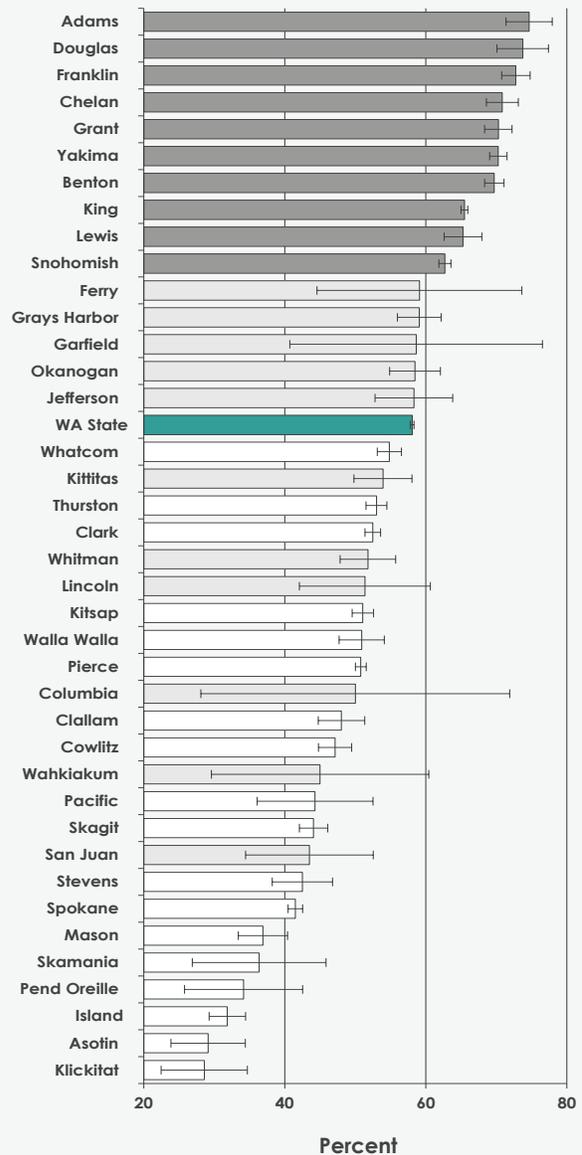
Geographic Variation

- Because NIS relies on small samples (n=200-300 in WA), it can provide coverage at the state level but not at the county level. WA IIS tracks immunization status by patient for Washington residents. The coverage from the WA IIS is lower than the true population coverage because reporting is not mandated. The degree of underreporting is similar across counties, so WA IIS can be used to report coverage by county.
- In 2015, the WA IIS 4:3:1:3:3:1:4 coverage rate was significantly lower in Asotin, Clallam, Clark, Cowlitz, Island, Kitsap, Klickitat, Mason, Pacific, Pend Oreille, Pierce, Skagit, Skamania, Spokane, Stevens, Thurston, Walla Walla and Whitman counties and significantly higher in Adams, Benton, Chelan, Douglas, Franklin, Grant, King, Lewis, Snohomish and Yakima counties as compared to the state. Rates of the 7-vaccine series ranged from 29% (±6%) in Klickitat to 75% (±3%) in Adams. Some of this difference may be due to differences in provider reporting to WA IIS.

Disparities

- The 2015 NIS data show there was no difference in the 7-vaccine series between Washington children living below poverty and children living at or above the poverty level.
- In addition, Hispanic children in Washington had similar coverage compared to non-Hispanic white children. Due to the small NIS sample size, coverage estimates are not available for other race or ethnicity subgroups in Washington.

Percentage of children 19-35 months who received recommended vaccines for 4:3:1:3:3:1:4 Washington State, IIS, 2015



How is Washington increasing childhood vaccination coverage?

Public health officials at the state and local levels are working hard to increase childhood vaccine coverage, by:

- Creating, promoting and distributing materials teaching parents about the benefits and risks of vaccination.
- Maintaining webpages and social media for parents and similar audiences.
- Encouraging providers to recommend vaccination at every opportunity.
- Promoting provider reminder/recall efforts.
- Increasing awareness of vaccine coverage through data webpages.
- Hosting and promoting [MyIR](#), a web portal where parents and families can access their own immunization records.
- Supporting the [Immunity Community](#) campaign to address vaccine hesitancy.

- Maintaining state-level immunization requirements for child care facilities.
- Offering online education about school and child care requirements, vaccine storage and handling, IIS use, and more.

Other statewide efforts include:

- Offering no-cost vaccinations to all children through age 18.
- 'Immunize Washington,' a partnership which recognizes providers with high vaccination rates.
- Incorporating childhood immunization goals in Medicaid managed care contracts.
- Pulling health plans together in a partnership to improve strategies that increase vaccination throughout the lifespan.

Evidence-based interventions to improve childhood immunization rates are available in the [CDC Community Guide](#).

Technical Notes

4:3:1:3:3:1:4 vaccine series: The 4:3:1:3:3:1:4 vaccine series is defined as four doses DTaP; three doses polio; one dose MMR; three or four doses. Haemophilus influenzae type b [Hib], depending on product type; three doses hepatitis B; one dose varicella; and four doses pneumococcal conjugate vaccines.

Confidence Intervals: Definition and examples are described in [Appendix C](#)

Immunization Data Sources: The National Immunization Survey and the Washington Immunization Information System are described [here](#).

Endnotes

¹National Immunization Surveys. Centers for Disease Control and Prevention. www.cdc.gov/vaccines/imz-managers/nis/index.html. Accessed on August 10, 2017.

²Immunization Data. Washington State Department of Health, Office of Immunization and Child Profile. www.doh.wa.gov/Data-andStatisticalReports/HealthBehaviors/Immunization/ImmunizationInformationSystem. Accessed on March 15, 2017.