

HEALTHY PEOPLE 2010 GOAL:

Maintain a vaccination coverage level of 90% for all children in licensed day care facilities and children in kindergarten through first grade.

Achieve 95% participation in an immunization registry by all children less than 6 years of age.

STATEWIDE:

According to Kindergarten Retrospective Surveys, immunization rates have increased from 67% in 1999 to 76.7% in 2008.⁴

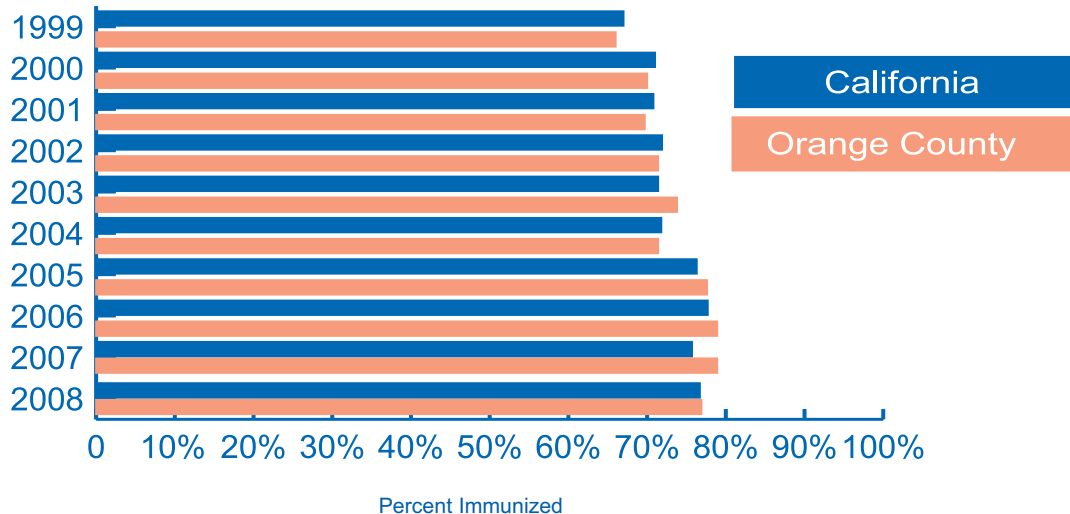
Definition of Indicator

Adequate immunization refers to the percentage of children in Orange County who are adequately immunized for four doses of DTP - diphtheria, tetanus, and pertussis (i.e., whooping cough); three doses of polio; and one dose of MMR - measles, mumps, and rubella by their second birthday. The Healthy People 2010 indicators also use three doses of hepatitis B, three doses of Haemophilus influenzae type B (Hib), and one dose of varicella (i.e., chickenpox) before three years of age. Data are based upon annual retrospective reviews of randomly selected kindergarten immunization records in Orange County and California.

Findings

Based upon the 2008 kindergarten retrospective survey, 76.9% of Orange County children had been adequately immunized at two years of age for four or more doses of diphtheria, three or more doses of polio, and one or more dose of measles, mumps, and rubella (4:3:1). That same year, the percentage of children with up-to-date immunization at the State level was 76.7%. Coverage for three doses of hepatitis-B was better in Orange County than in the State. For hepatitis B, Orange County attained 91.1% coverage in 2008 for children at 2 years of age compared to 90.1% for the State. This year the State and Orange County were close to each in varicella coverage: 87.1% for Orange County versus 87.2% for the State. No date was available for Haemophilus influenzae type B vaccination coverage.

Percent of Children Adequately Immunized by Two Years of Age for Orange County and California, 1999 to 2008



RELATED INDICATORS:

- Early Prenatal Care
- Infant Mortality
- Access to Healthcare

Trends

There has been an increase in percentage of children adequately immunized by the age of 2 in Orange County from 66.0% in 1999 to 76.9% in 2008. This was a 16.5% increase from 1999 to 2008. During the same period, the State percentage of immunized children went from 67.0% to 76.7%; this was a 14.5% increase. In 2005, Orange County had the largest single-year increase when immunization rates jumped to 77.6%; an 8.7% increase from 2004. There was a decrease of 2.5% from 2007 to 2008 in Orange County and an increase of 1.3% for the State for the same period, for children adequately immunized by the age of 2. Currently, about 1 out of 5 children still lack adequate immunization by age 2 and may be at the risk of contracting illnesses such as measles, whooping cough, tetanus, or polio. Trend data are no available for hepatitis B, varicella, or H. influenzae.

Why is this Important?

Childhood vaccinations are one of the most successful and cost-effective public health interventions of the 20th century. Early continuity of health care and immunizations has a profound and lasting effect on the long-term health of a child.¹ Adequate immunizations protect children against diseases that killed or permanently impaired many children in past decades. Although the numbers have declined, there are still reported morbidity and mortality due to vaccine-preventable diseases such as whooping cough (pertussis), hepatitis B, measles, and chicken pox (varicella).²

Vaccination coverage is particularly important before children enter preschool to prevent the spread of disease. Risk factors for under-immunization of children from birth to two years old include single parent status, inadequate prenatal care, low maternal education, limited English proficiency, recent immigration to the US, low socioeconomic status, and higher birth order. Over-immunization is also possible with increased fragmentation of health care and mobile families.³

Many of today's parents have never seen someone who has suffered the effects of polio, the full complications of the measles nor of the other diseases that are now in large part prevented by vaccinations. Recently, San Diego County experienced firsthand measles outbreak in children who had not been vaccinated.

Unfortunately the torrent of misinformation that is being spread about the risks of vaccines is confusing parents. Parent need to know that no singular medical advancement has saved more lives and decreased illness more than vaccines. When the risks of vaccines are compared to the benefits there is no comparison. The benefits to society and to the individual child far outweigh what are now minor risks.

What's Happening in Orange County?

All 50 states currently operate or are developing immunization registries, and Healthy People 2010 has set a national goal of enrolling 95% of all children under age 6 in an immunization registry.

- Since March 2005, a centralized computerized immunization registry has allowed for better tracking of immunizations. As of June 2009, 10 regional and county registry offices in the State are now consolidated under California Immunization Registry (CAIR).
- As of July 2009, 204 Orange County providers and 121,730 Orange County children below six years of age were enrolled in the registry. This is a 25% increase in the number of Orange County providers, and a 51% increase in the number of Orange County children below six years of age enrolled in the registry since July 1, 2008.
- Beginning September 2008, CalOptima electronic data migration into the registry commenced
- Beginning August 2008, all Orange County Health Care Agency WIC Clinics, as well as all Orange County WIC clinics run by Planned Parenthood and Camino Health Center, have entered the immunization registry for WIC clients under two years of age.

What's working:

- The Immunization registry has resulted in improved quality of care for children and cost savings to families, providers, and institutions needing immunization records.
- As more children become enrolled, vaccination coverage will be better monitored in order to decrease coverage gaps and over-immunization.

 See page 143 in Supplemental Tables for additional data

NATIONWIDE:

82.8% of children 19-35 months of age had adequate immunization according to the 2007 U.S National Immunization Survey.⁵

DATA SOURCES:

Orange County Health Care Agency and State Department of Health and Human Services Agency/Immunization Branch

NOTES:

- ¹Irigoyen M, Findley SE, Chen S, et al. Early continuity of care and immunization coverage. *Ambulatory Pediatrics* 2004; 4(3):199-203.
- ²America's Children: Key Indicators of Well-Being, 2002
- ³Feikema SM, Klevens M, Washington ML, & Barker L. Extraimmunization among US children. *JAMA* 2000; 283:1311-1317.
- ⁴California Department of Health Services, Immunization Branch, 2008 Kindergarten Retrospective Survey Results
- ⁵Centers for Disease Control & Prevention, National Immunization Program, National Immunization Survey, National, State, and Local Area Vaccination Coverage Among Children Aged 19-35 Months, United States, 2007.