

## VACCINATION COVERAGE

The Healthy People 2020 objective for childhood immunization is to achieve 90 percent coverage for each of the universally recommended vaccines among young children. In 2009, 70.5 percent of children 19–35 months of age received each of six vaccines in a modified series of recommended vaccines (4:3:1:3:1:4). This series includes four doses of diphtheria, tetanus, and pertussis vaccine (DTP/DT/DTaP); three doses of poliovirus vaccine; one dose of measles, mumps, and rubella vaccine (MMR); three doses of the Hepatitis B vaccine (HepB); one dose of the varicella (chicken pox) vaccine; and four doses of the pneumococcal conjugate vaccine (PCV). Estimates presented in previous editions of Child Health USA have focused on receipt of a 7-vaccine series which also included three doses of *Haemophilus influenzae* type b vaccine (Hib). However, because of changes in measurement of the Hib vaccine and the vaccine shortage that occurred from December 2007 to September 2009, coverage estimates included here are based on the modified series that excludes Hib.

For some vaccines, the proportion of children covered varied by poverty status. Children living in households with family incomes below 100 percent of the U.S. Census Bureau's poverty threshold (\$22,025 for a family of four in

2008) had significantly lower rates of vaccine coverage for diphtheria, tetanus, and pertussis (80.1 percent compared to 85.7 percent of children living in households with family incomes above the poverty threshold) as well as for the four recommended doses of pneumococcal conjugate vaccine (74.8 percent versus 83.2 percent). Although no difference was observed in the proportion of children receiving three

doses of the Hepatitis B vaccine by poverty status, coverage for the Hepatitis B birth dose (one dose within the first three days of life) was higher among children living below poverty than for those living at or above poverty (63.2 percent versus 59.4 percent; data not shown). No statistically significant difference was observed in the proportion of children receiving the modified 6-vaccine schedule by poverty status.

### Vaccination Rates Among Children Aged 19-35 Months, by Poverty,\* 2009

Source (III.3): Centers for Disease Control and Prevention, National Immunization Survey

| Vaccine                                | Total | < 100% Poverty | ≥ 100% Poverty |
|----------------------------------------|-------|----------------|----------------|
| <b>4:3:1:3:x:1:4 Modified Series**</b> | 70.5  | 75.5           | 78.5           |
| <b>4+DTAP</b>                          | 83.9  | 80.1           | 85.7           |
| <b>3+Polio</b>                         | 92.8  | 92.0           | 93.3           |
| <b>1+MMR</b>                           | 90.0  | 88.8           | 90.6           |
| <b>2+ or 3+Hib***</b>                  | 83.6  | 90.1           | 93.1           |
| <b>3+HepB</b>                          | 92.4  | 92.3           | 92.7           |
| <b>1+ Varicella</b>                    | 89.6  | 89.0           | 90.2           |
| <b>4+ PCV</b>                          | 80.4  | 74.8           | 83.2           |

\*The U.S. Census Bureau uses a set of money income thresholds to determine who is in poverty; the poverty threshold for a family of four was \$22,025 in 2008. \*\*Excludes Hib, due to the 2007–2009 shortage. \*\*\*Depending on product type received