This schedule includes recommendations in effect as of December 21, 2010. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Considerations should include provider assessment, patient preference, and the potential for adverse events. Providers should consult the relevant Advisory Committee on Immunization Practices statement for detailed recommendations: http://www.cdc.gov/vaccines/subscribe/acip-list.htm. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS): http://www.vaers.hhs.gov or by telephone, 800-822-7967. Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

### 1. Hepatitis B vaccine (HepB).

#### At Birth:
- Administer monovalent HepB to all newborns before hospital discharge.
  - If mother is hepatitis B surface antigen (HBsAg)-positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
  - If mother’s HBsAg status is unknown, administer HepB within 12 hours of birth. Determine mother’s HBsAg status as soon as possible and, if HBsAg-positive, administer HBIG (no later than 1 week).

#### Doses following the birth dose:
- The second dose should be administered at age 1 or 2 months. Monovalent HepB should be used for doses administered before age 6 weeks.
- Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg 1 to 2 months after completion of at least 3 doses of the HepB series, at age 9 through 18 months (generally at the next well-child visit).
- Administration of 4 doses of HepB to infants is permissible when a combination vaccine containing HepB is administered after the birth dose.
- Infants who did not receive a birth dose should receive 3 doses of HepB on a schedule of 0, 1, and 6 months.
- The final (3rd or 4th) dose in the HepB series should be administered no earlier than 24 weeks.

### 2. Rotavirus vaccine (RV).

#### At Age 2 Months:
- Administer the first dose at age 6 through 14 weeks (maximum age: 14 weeks 6 days). Vaccination should not be initiated for infants aged 15 weeks 0 days or older.
- The maximum age for the final dose in the series is 8 months 0 days.
- If Rotarix is administered at ages 2 and 4 months, a dose at 6 months is not indicated.

### 3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).

#### At Age 2 Months:
- Administer the first dose at age 6 through 14 weeks (maximum age: 14 weeks 6 days). Vaccination should not be initiated for infants aged 15 weeks 0 days or older.
- The maximum age for the final dose in the series is 8 months 0 days.
- If Rotarix is administered at ages 2 and 4 months, a dose at 6 months is not indicated.

### 4. Haemophilus influenzae type b conjugate vaccine (Hib).

#### Minimum age: 6 weeks
- If PRP-OMP (PedvaxHIB or Comvax [HepB-Hib]) is administered at ages 2, 4, or 6 months for the primary series but can be used as the final dose in children aged 12 months through 4 years.
- The supplemental dose of PCV13 should be administered at least 8 weeks after the previous dose of PCV7. See MMWR 2010:59(No. RR-11).
- Administer PPSV at least 8 weeks after last dose of PCV to children aged 2 years or older with certain underlying medical conditions, including a cochlear implant.

### 5. Pneumococcal vaccine.

#### Minimum age: 6 weeks for pneumococcal conjugate vaccine (PCV); 2 years for pneumococcal polysaccharide vaccine (PPSV)
- PCV is recommended for all children aged younger than 5 years. Administer 1 dose of PCV to all healthy children aged 24 through 59 months who are not completely vaccinated for their age.
- A PCV series begun with 7-valent PCV (PCV7) should be completed with 13-valent PCV (PCV13).
- A single supplemental dose of PCV13 is recommended for all children aged 14 through 59 months who have received an age-appropriate series of PCV7.
- A single supplemental dose of PCV13 is recommended for all children aged 60 through 71 months with underlying medical conditions who have received an age-appropriate series of PCV7.
- The second dose should be administered at age 1 or 2 months. Monovalent HepB should be used for doses administered before age 6 weeks.
- Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg 1 to 2 months after completion of at least 3 doses of the HepB series, at age 9 through 18 months (generally at the next well-child visit).
- Administration of 4 doses of HepB to infants is permissible when a combination vaccine containing HepB is administered after the birth dose.
- Infants who did not receive a birth dose should receive 3 doses of HepB on a schedule of 0, 1, and 6 months.
- The final (3rd or 4th) dose in the HepB series should be administered no earlier than 24 weeks.

### 6. Inactivated poliovirus vaccine (IPV).

#### Minimum age: 6 weeks
- If 4 or more doses are administered prior to age 4 years an additional dose should be administered at age 4 through 6 years.
- The second dose may be administered on or after the fourth birthday and at least 6 months following the previous dose.

### 7. Influenza vaccine (seasonal).

#### Minimum age: 6 months for trivalent inactivated influenza vaccine (TIV); 2 years for live, attenuated influenza vaccine (LAIV)
- For healthy children aged 2 years and older (i.e., those who do not have underlying medical conditions that predispose them to influenza complications), either LAIV or TIV may be used, except LAIV should not be given to children aged 2 through 4 years who have had wheezing in the past 12 months.
- Administer 2 doses (separated by at least 4 weeks) to children aged 6 months through 8 years who are receiving seasonal influenza vaccine for the first time or who were vaccinated for the first time during the previous influenza season but only received 1 dose.
- Children aged 6 months through 8 years who received no doses of monovalent 2009 H1N1 vaccine should receive 2 doses of 2010–2011 seasonal influenza vaccine. See MMWR 2010:59(No. RR-8):33–34.

### 8. Measles, mumps, and rubella vaccine (MMR).

#### Minimum age: 12 months
- The second dose may be administered before age 4 years, provided at least 4 weeks have elapsed since the first dose.
- The second dose should be administered at age 1 or 2 months.
- Monovalent HepB should be used for doses administered before age 6 weeks.
- Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg 1 to 2 months after completion of at least 3 doses of the HepB series, at age 9 through 18 months (generally at the next well-child visit).
- Administration of 4 doses of HepB to infants is permissible when a combination vaccine containing HepB is administered after the birth dose.
- Infants who did not receive a birth dose should receive 3 doses of HepB on a schedule of 0, 1, and 6 months.
- The final (3rd or 4th) dose in the HepB series should be administered no earlier than 24 weeks.


#### Minimum age: 12 months
- The second dose may be administered before age 4 years, provided at least 3 months have elapsed since the first dose.
- For children aged 6 months through 8 years who were vaccinated for the first time or who were vaccinated for the first time during the previous influenza season but only received 1 dose.
- Children aged 6 months through 8 years who received no doses of monovalent 2009 H1N1 vaccine should receive 2 doses of 2010–2011 seasonal influenza vaccine. See MMWR 2010:59(No. RR-8):33–34.

### 10. Hepatitis A vaccine (HepA).

#### Minimum age: 12 months
- Administer 2 doses at least 6 months apart.
- HepB is recommended for children aged older than 23 months who live in areas where hepatitis A is endemic.
- Infants who did not receive a birth dose should receive 3 doses of HepA on a schedule of 0, 1, and 6 months.
- The final (3rd or 4th) dose in the HepB series should be administered no earlier than 24 weeks.

### 11. Meningococcal conjugate vaccine, quadrivalent (MCV4).

#### Minimum age: 2 years
- Administer 2 doses of MCV4 at least 8 weeks apart to children aged 2 through 10 years with persistent complement component deficiency and anatomic or functional asplenia, and 1 dose every 5 years thereafter.
- Persons with human immunodeficiency virus (HIV) infection who are vaccinated with MCV4 should receive 2 doses at least 8 weeks apart.
- Administer 1 dose of MCV4 to children aged 2 through 10 years who travel to countries with moderately to highly endemic meningococcal disease and during outbreaks caused by a vaccine serogroup.
- Administer MCV4 to children at continued risk for meningococcal disease caused by a vaccine serogroup.