World TB Day - March 24th

World TB Day, held on March 24 each year, is an occasion for people around the world to raise awareness about the health threat presented by tuberculosis (TB). It is a day to recognize the collaborative efforts of all countries involved in fighting TB. TB can be cured, controlled, and, with diligent efforts and sufficient resources, eventually eliminated.

TB and multi-drug resistant TB

TB and multi-drug resistant TB remains a threat to the health and well-being of people around the world. Among infectious diseases, TB remains the second leading killer of adults in the world with more than 2 million TB-related deaths each year. In 2005, there were 2,900 active TB cases reported in California (2004:~2% multi-drug resistant) and 26 in Santa Barbara County (2005: 0 multi-resistant, 1 mono resistant).

Public Health Disaster Preparedness Program

Pandemic Preparedness Plan

The first pandemic planning meeting for health care providers was held in our county on January 27th. Participants discussed the role of the Public Health Department, hospitals, and medical and home health providers during a pandemic. Three workgroups were established: Planning and Response for Outpatient Providers, Hospital Plans and Response, and Medical Advisory. The Public Health Department’s plan, provider screening and reporting forms, and information on testing is available at www.sbcphd.org under Health Advisories, choose “Pandemic Preparedness and Avian Influenza Facts”. For questions regarding pandemic planning please contact Jan Koegler at 681-4913.

Public Health Laboratory

PCR Testing Locally - H5 Suspect Avian Flu

The Public Health Laboratory has completed the necessary steps to participate in the Statewide Respiratory Virus Laboratory Network. This is a voluntary network of local public health laboratories coordinated by the Viral and Rickettsial Diseases Laboratory (VRDL) at the State Department of Health Services. We now have the capability to rule out avian influenza by performing polymerase chain reaction (PCR) testing on respiratory specimens. At present, we can test for Influenza A/H1, A/H3 and Influenza B. We are working with CDC and VRDL to develop the capability to provide local PCR testing for Influenza A/H5. Until we have this capability in our laboratory, specimens testing positive for Influenza A but negative for H1 and H3 will be sent to VRDL for H5 PCR. Avian Influenza Test Guidelines, Screening Form, and Submittal Form are available at www.sbcphd.org under Health Advisories, choose “Pandemic Preparedness and Avian Influenza Facts” then click on Information for Healthcare Providers. Please call the Public Health Laboratory at 681-5255 for additional information.

Immunization Program

ACIP Recommends Meningococcal Vaccine (MCV4) for Adolescents and College Freshmen

The Advisory Committee on Immunization Practices (ACIP) to the CDC recommends routine vaccination of young adolescents with MCV4 at the pre-adolescent visit (11-12 years old). Introducing a recommendation for MCV4 vaccination in pre-adolescents may strengthen the role of the pre-adolescent visit and have a positive effect on vaccine coverage in adolescence. For those who have not previously received MCV4, ACIP recommends vaccination before high school entry (~15 years old) as the most effective strategy towards reducing meningococcal disease incidence in adolescence and young adulthood. Within 3 years, the goal is routine vaccination with MCV4 of all adolescents beginning at 11 years of age.

As of December 19, 2005, the Vaccine Adverse Reporting System (VAERS) received seven reports of Guillian-Barré syndrome in adolescents who received MCV4 and the CDC determined that this number is not greater than would be expected in an unvaccinated population. Therefore, CDC is recommending continuation of current vaccination strategies. (CDC Fact Sheet For Professionals, Updated December 20, 2005.)
The Advisory Committee on Immunization Practices (ACIP), at its scheduled meeting on February 21, 2006, voted to recommend the addition of RotaTeq® to the current pediatric immunization schedule of recommended vaccines. Children should receive the first dose by age 12 weeks and all of the doses of the vaccine by 32 weeks of age.

On February 3, 2006 the FDA approved RotaTeq® (rotavirus vaccine, live, oral, pentavalent), the only vaccine available in the U.S. to prevent rotavirus gastroenteritis, a cause of severe diarrhea in infants and young children. RotaTeq® is an oral, three-dose vaccine given to infants between the ages of 6 to 32 weeks. The FDA approval is based on data from Merck's Phase III clinical trials of more than 70,000 infants, including the Rotavirus Efficacy and Safety Trial (REST). One of the primary goals of REST was to evaluate the safety of RotaTeq® with respect to intussusception.

RotaTeq® is a pentavalent vaccine that targets the strains of rotavirus responsible for more than 90% of rotavirus disease in the U.S. Among children under five in the United States, it is estimated that 2.7 million episodes of rotavirus gastroenteritis occur each year, which leads to approximately 250,000 emergency room visits and up to 70,000 hospitalizations.

* **NEW UPDATED Childhood and Adolescent Immunization Schedule - Insert**

- NEW 2006 Childhood and Adolescent Immunization Schedule is located at: http://www.cdc.gov/nip/recs/child-schedule.htm
- NEW 2006 Adult (over age 18) Immunization Recommendations located at: http://www.cdc.gov/nip/recs/adult-schedule.htm

**Influenza Season 2005 -2006**

California Department of Health Services (CDHS) - Viral Rickettsial Disease Laboratory (VRDL)

Influenza Antiviral Resistance

On January 14, 2006, CDC issued a Health Alert (http://www.cdc.gov/flu/han011406.htm) identifying widespread resistance to the antiviral drugs amantadine and rimantadine in influenza A isolates characterized in the United States this season. Nationally, of 120 influenza A (H3N2) viruses isolated from patients in 23 states, 109 (91%) contained a mutation (amino acid change at position 31 of the M2 protein) that conferred resistance to both amantadine and rimantadine.

VRDL tested a random sample of 50 specimens submitted in December 2005. This testing identified 96% of the samples resistant to amantadine and rimantadine, containing the same mutation as had been identified by CDC. CDHS continues to recommend that neither amantadine nor rimantadine be used for the treatment or prophylaxis of influenza A for the remainder of the 2005-06 influenza season, including institutional outbreaks. Instead, oseltamivir or zanamivir should be utilized.


Local Enhanced Influenza Surveillance with Sentinel Provider Network

The County of Santa Barbara is conducting enhanced surveillance for influenza. We will be requesting our sentinel provider network to alert the PHD if they have received anyone at their site from May through August 2006 with Influenza Like Illness: fever greater than 100 degrees fahrenheit AND cough and/or sore throat. Please call (805) 681-4750.

**HIV/AIDS Program**

HIV Rapid Testing Availability

HIV rapid testing is a technique that allows for the testing and disclosure of HIV test results to clients within approximately 20 minutes. OraSure Technologies Inc. has received FDA approval to market the OraQuick Advantage HIV rapid test kit. This kit can be used with either a blood or oral fluid sample. Currently the kit is not available for over the counter sales, and may only be used in California under a CLIA waiver by the Department of Health Services. The kit is very reliable as a preliminary screening tool and very sensitive (accuracy and sensitivity are both above 99.8% for blood and oral fluids). Positive test results are considered preliminary and must be confirmed by a blood sample processed at a State-certified laboratory. For more information on OraQuick Advantage, please visit the OraSure Technologies website at www.orasure.com.

The County of Santa Barbara provides free anonymous and confidential HIV testing at multiple alternative testing site (ATS) locations. For a full listing of the ATS testing times and locations, please visit our website at www.sbcphd.org and -Jump to Public Health Programs- HIV/AIDS Education & Prevention. Or you may call the HIV/AIDS Services Office at (805)681-5120. HIV rapid testing is not available at all sites, but is available at the Santa Barbara and Santa Maria Health Clinics, and has recently been implemented at the Pacific Pride Foundation, Inc. Santa Barbara and Santa Maria locations.
In the News ...

New epidemic strain of *Clostridium difficile* *(C. difficile)*

Centers for Disease Control and Prevention (CDC). “Severe *Clostridium difficile*–associated disease in populations previously at low risk — Four states, 2005.” MMWR 2005 Dec; 2; 54 (No. MM47); 1201. Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5447a1.htm

A previously uncommon strain of *C. difficile* with variations in toxin genes has become more resistant to fluoroquinolones and has emerged as a cause of geographically dispersed outbreaks of *C. difficile*-associated disease. Source: [PubMed - indexed for MEDLINE]


Methicillin-resistant *Staphylococcus aureus* (MRSA)


Of 9622 individuals sampled, 2964 carried *S. aureus*; 75 isolates were methicillin-resistant (MRSA). Weighted estimates of *S. aureus* and MRSA colonization prevalence were 32.4% and 0.8%, respectively.


Pertussis Control


Recommendations were developed to broaden the spectrum of antimicrobial agents that are available for treatment and post-exposure prophylaxis of pertussis. They include updated information on macrolide agents other than erythromycin (azithromycin and clarithromycin) and a dosing schedule by age group.


Emerging Disease Outbreaks


Infection Control Recommendations


CDC. Guidelines for preventing the transmission of *Mycobacterium tuberculosis* in health-care settings, 2005. MMWR 2005 Dec 30; 54 (No. RR-17);1-141. Available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5417a1.htm

PREVENTION COUNTS

The CDLHN course Epidemiology and Prevention of Vaccine Preventable Diseases, presented via satellite broadcast on February 9, 16, 23. and March 2, 2006, is available for viewing via webcast by going to: http://www.phppo.cdc.gov/phn/webcast/epv06/default.asp.
**REPORTABLE COMMUNICABLE DISEASES**
**FOURTH QUARTER REPORT 2005**

<table>
<thead>
<tr>
<th>Selected Reportable Diseases</th>
<th>Cases Reported October - December</th>
<th>Total Cases Reported for Year</th>
</tr>
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<tr>
<td>AIDS*</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AMEBIASIS</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>CAMPYLOBACTERIOSIS</td>
<td>24</td>
<td>18</td>
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<tr>
<td>CHLAMYDIA</td>
<td>268</td>
<td>304</td>
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<td>COCCIDIOIDOMYCOSIS</td>
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<td>2</td>
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<tr>
<td>GONORRHEA</td>
<td>33</td>
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<tr>
<td>HEPATITIS A</td>
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<tr>
<td>HEPATITIS B</td>
<td>5</td>
<td>10</td>
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<tr>
<td>HEPATITIS C</td>
<td>54</td>
<td>87</td>
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<tr>
<td>MENINGITIS, BACTERIAL</td>
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<td>3</td>
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<tr>
<td>MENINGITIS, VIRAL</td>
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<tr>
<td>MENINGOCOCCAL INFECTION</td>
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<td>0</td>
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<tr>
<td>PERTUSSIS (WHOOPING COUGH)</td>
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<tr>
<td>SALMONELLOSIS</td>
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<td>SYPHILIS - EARLY LATENT (&lt;1 YR)</td>
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</tr>
<tr>
<td>TUBERCULOSIS</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>RABIES - animal non-domestic</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

*Based on diagnosis date

Reportable Communicable Diseases Reports [http://www.sbcphd.org/dcp/epi_unit.html](http://www.sbcphd.org/dcp/epi_unit.html)

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  - FDA approval for Merck’s Rotateq®

- **INFLUENZA PROGRAM**
  - Influenza A resistant to amantadine and rimantadine
  - Enhances Influenza Surveillance

- **PUBLIC HEALTH LABORATORY**
  - PCR - Suspect Avian Influenza

- **HIV/AIDS PROGRAM**
  - HIV Rapid Testing Availability

- **IN THE NEWS**
  - New Strain of C. difficile in North America
  - Methicillin-resistant Staphylococcus aureus
  - Pertussis Control & Treatment
### Recommended Childhood and Adolescent Immunization Schedule

**UNITED STATES • 2006**

<table>
<thead>
<tr>
<th>Vaccine ▼</th>
<th>Age ▼</th>
<th>Birth</th>
<th>1 month</th>
<th>2 months</th>
<th>4 months</th>
<th>6 months</th>
<th>12 months</th>
<th>15 months</th>
<th>18 months</th>
<th>24 months</th>
<th>4–6 years</th>
<th>11–12 years</th>
<th>13–14 years</th>
<th>15 years</th>
<th>16–18 years</th>
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<tbody>
<tr>
<td>Hepatitis B1</td>
<td>HepB</td>
<td>HepB</td>
<td>HepB</td>
<td>HepB</td>
<td>HepB</td>
<td>HepB</td>
<td>HepB</td>
<td>HepB</td>
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<td>HepB Series</td>
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<tr>
<td>Diphtheria, Tetanus, Pertussis3</td>
<td>DTaP</td>
<td>DTaP</td>
<td>DTaP</td>
<td>DTaP</td>
<td>DTaP</td>
<td>DTaP</td>
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<td>Tdap</td>
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<tr>
<td>Haemophilus influenzae type b1</td>
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<td>Hib</td>
<td>Hib</td>
<td>Hib</td>
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<tr>
<td>Inactivated Poliovirus</td>
<td>IPV</td>
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<td>IPV</td>
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<tr>
<td>Measles, Mumps, Rubella4</td>
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<td>Pneumococcal7</td>
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<td>Influenza8</td>
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<tr>
<td>Hepatitis A8</td>
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</tbody>
</table>

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This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2005, for children through age 18 years. Any dose not administered at the recommended age should be administered at any subsequent visit when indicated and feasible. Indicates age groups that warrant special effort to administer those vaccines not previously administered. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and other components of the vaccine are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective ACIP statement for detailed recommendations. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.

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1. **Hepatitis B vaccine** (HepB). **AT BIRTH:** All newborns should receive monovalent HepB soon after birth and before hospital discharge. Infants born to mothers who are HBsAg-positive should receive HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth. Infants born to mothers whose HBsAg status is unknown should receive HepB within 12 hours of birth. The mother should have blood drawn as soon as possible to determine her HBsAg status; if HBsAg-positive, the infant should receive HBIG as soon as possible (no later than age 1 week). For infants born to HBsAg-negative mothers, the birth dose can be delayed in rare circumstances but only if a physician’s order to withhold the vaccine and a copy of the mother’s original HBsAg-negative laboratory report are documented in the infant’s medical record. **FOLLOWING THE BIRTHDOSE:** The HepB series should be completed with either monovalent HepB or a combination vaccine containing HBIG. The second dose should be administered at age 1–2 months. The final dose should be administered at age ≥24 weeks. It is permissible to administer 4 doses of HepB (e.g., when combination vaccines are given after the birth dose); however, if monovalent HepB is used, a dose at age 4 months is not needed. Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HBsAg after completion of the HepB series, at age 3–8 months (generally at the next well-child visit after completion of the vaccine series).

2. **Diphtheria and tetanus toxoids and acellular pertussis vaccine** (DTaP). The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose and the child is unlikely to return at age 15–18 months. The final dose in the series should be given at age ≥4 years. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap – adolescent preparation) is recommended at age 11–12 years for those who have completed the recommended childhood DTaP/Tdap vaccination series and have not received a Td booster dose. Adolescents 13–18 years who misses the 11–12-year Td/Tdap booster dose should also receive a single dose of Tdap if they have completed the recommended childhood DTaP/Tdap vaccination series. Subsequent tetanus and diphtheria toxoids (Td) are recommended every 10 years.

3. **Haemophilus influenzae type b conjugate vaccine** (Hib). Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvacHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required. DTaP/Hib combination products should not be used for primary immunization in infants at ages 2, 4 or 6 months but can be used as boosters after any Hib vaccine. The final dose in the series should be administered at age ≥12 months.

4. **Measles, mumps, and rubella vaccine (MMR).** The second dose of MMR is recommended routinely at age 4–6 months but may be administered during any visit, provided at least 4 weeks have elapsed since the first dose and both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule by age 11–12 years.

5. **Varicella vaccine.** Varicella vaccine is recommended at any visit or at age 12 months for susceptible children (i.e., those who lack a reliable history of chickenpox). Susceptible persons aged ≥13 years should receive 2 doses administered at least 4 weeks apart.

6. **Meningococcal vaccine (MCV4).** Meningococcal conjugate vaccine (MCV4) should be given to all children at the age of 11–12 years old age as well as all unvaccinated adolescents at high school entry (15 years of age). Other adolescents who wish to decrease their risk for meningococcal disease may also be vaccinated. All college freshmen living in dormitories should also be vaccinated, preferably with MCV4, although meningococcal polysaccharide vaccine (MPSV4) is an acceptable alternative. Vaccination against invasive meningococcal disease is recommended for children and adolescents aged ≥2 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high risk groups (see MMWR 2005;54[RR-8]:1-55). MCV4 is an acceptable alternative to PCV for certain high-risk groups. See MMWR 2000;49[RR-8]:1-35.

7. **Pneumococcal vaccine.** The heptavalent pneumococcal conjugate vaccine (PCV) is recommended for all children aged 2–23 months and for certain children aged 24–59 months. The final dose in the series should be given at age ≥12 months. Pneumococcal polysaccharide vaccine (PPV) is recommended in addition to PCV for certain high-risk groups. See MMWR 2005;54[RR-8]:1-35.

8. **Influenza vaccine.** Influenza vaccine is recommended annually for children aged ≥6 months with certain risk factors (including, but not limited to, asthma, cardiac disease, sickle cell disease, human immunodeficiency virus [HIV], diabetes, and conditions that can compromise respiratory function or handling of respiratory secretions and can increase the risk for aspiration), healthcare workers, and other persons (including household members) in close contact with persons in high risk (see MMWR 2005;54[RR-1]:55). In addition, healthy children aged 6–23 months and close contacts of healthy children aged 0–5 months are recommended to receive influenza vaccine because children in this age group are at substantially increased risk for influenza-related hospitalizations. For healthy persons aged 5–49 years, the intranasally administered, live, attenuated influenza vaccine (LAIV) is an acceptable alternative to the intramuscular trivalent inactivated influenza vaccine (TIV). See MMWR 2005;54[RR-1]:55. Children receiving TIV should be administered a dosage appropriate for their age (0.25 mL if aged 6–35 months or 0.5 mL if aged ≥3 years). Children aged >8 years who are receiving influenza vaccine for the first time should receive 2 doses (separated by at least 4 weeks for TIV and at least 6 weeks for LAIV).

9. **Hepatitis A vaccine** (HepA). HepA is recommended for all children at age 1 year of age (i.e., 12–23 months). The 2 doses in the series should be administered at least 6 months apart. States, counties, and communities with existing HepA vaccination programs for children 2–18 years of age are encouraged to maintain these programs. In these areas, new efforts focused on routine vaccination of 1-year-old children should enhance, not replace, ongoing programs directed at a broader population of children. HepA is also recommended for certain high risk groups (see MMWR 1998; 48[RR-12]:1-37).
### CATCH-UP SCHEDULE FOR CHILDREN AGED 4 MONTHS THROUGH 6 YEARS

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Minimum Age for Dose 1</th>
<th>Minimum Interval Between Doses</th>
<th>Minimum Interval Between Doses</th>
<th>Minimum Interval Between Doses</th>
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</thead>
<tbody>
<tr>
<td>Diphtheria, Tetanus, Pertussis</td>
<td>6 wks</td>
<td>4 weeks</td>
<td>4 weeks</td>
<td>6 months</td>
</tr>
<tr>
<td>Inactivated Poliovirus</td>
<td>6 wks</td>
<td>4 weeks</td>
<td>4 weeks</td>
<td>8 weeks</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>Birth</td>
<td>4 weeks</td>
<td>8 weeks (and 16 weeks after first dose)</td>
<td></td>
</tr>
<tr>
<td>Measles, Mumps, Rubella</td>
<td>12 mo</td>
<td>4 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella</td>
<td>12 mo</td>
<td>4 weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemophilus influenza type b</td>
<td>6 wks</td>
<td>4 weeks</td>
<td>8 weeks (as final dose)</td>
<td>8 weeks</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

1. DTaP. The fifth dose is not necessary if the fourth dose was administered after the fourth birthday.

2. IPV. For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if third dose was administered at age ≥4 years. If both OPV and IPV were administered as part of a series, a total of 4 doses should be given, regardless of the child’s current age.

3. HepB. Administer the 3-dose series to all children and adolescents <19 years of age if they were not previously vaccinated.

4. MMR. The second dose of MMR is recommended routinely at age 4–6 years but may be administered earlier if desired.

5. Hib. Vaccine is not generally recommended for children aged ≥5 years.

6. Hib. If current age <12 months and the first 2 doses were PRP-OMP (PedvaxHIB® or ComVax® [Merck]), the third (and final) dose should be administered at age 12–15 months and at least 8 weeks after the second dose.

7. PCV. Vaccine is not generally recommended for children aged ≥5 years.

8. Td. Adolescent tetanus, diphtheria, and pertussis vaccine (Tdap) may be substituted for any dose in a primary catch-up series or as a booster if age appropriate for Tdap. A five-year interval from the last Td dose is encouraged when Tdap is used as a booster dose. See ACIP recommendations for further information.

9. IPV. Vaccine is not generally recommended for persons aged ≥18 years.

10. Varicella. Administer the 2-dose series to all susceptible adolescents aged ≥13 years.

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**For additional information about vaccines, including precautions and contraindications for immunization and vaccine shortages, please visit the National Immunization Program Website at www.cdc.gov/nip or contact 800-CDC-INFO (800-232-4636) (In English, En Español — 24/7)**

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Report adverse reactions to vaccines through the federal Vaccine Adverse Event Reporting System. For information on reporting reactions following immunization, please visit www.vaers.hhs.gov or call the 24-hour national toll-free information line 800-822-7967. Report suspected cases of vaccine-preventable diseases to your state or local health department.