Objectives

- Describe the importance of vaccines and how it works to provide immunity
- Enumerate some important changes to the 2014-2015 Immunization Schedule
- Identify some strategies to assure vaccination among adults
Ten Great Public Health Achievements of the 20th Century

1. Immunization
2. Motor-vehicle safety
3. Workplace safety
4. Control of infectious diseases
5. Decline in deaths from heart disease and stroke
6. Safer and healthier foods
7. Healthier mother and babies
8. Family planning
9. Fluoridation of drinking water
10. Tobacco as health hazard
Importance of Vaccine

• The role of vaccine is to provide immunity against certain diseases.
• It constitutes a big part of health promotion and prevention of diseases.
How does vaccine works?

- A weakened form of the disease germ is injected into the body.
- The body makes antibodies to fight these invaders.
- If the actual disease germs ever attack the body, the antibodies will return to destroy them.
Types of Immunity

Active Immunity
- As a result of exposure to the disease
- Induced by attenuated or organisms of the actual disease (vaccine) also called vaccine-induced immunity.
- The immunity is sometimes acquired for life.

Passive immunity
- When the person receives antibodies of the disease
  Ex: Mother to baby
  Antibody-blood containing products (immune globulin)
List of some Vaccine Preventable Diseases

- Hepatitis B
- Influenza (Flu)
- Measles
- Mumps
- Rubella
- Varicella (Chicken Pox)
- Pertussis
- Pneumococcal
- Shingles (herpes Zoster)
- Tetanus
<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>People for whom vaccination is recommended</th>
<th>Schedule for vaccination administration</th>
<th>Contraindications and precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hepatitis B</strong> (HepB)</td>
<td>All adults who want to be protected from hepatitis B virus infection and lack a previous dose.</td>
<td>There must be at least 4wks between doses #1 and #2, and at least 8wks between doses #2 and #3. Overall, there must be at least 16wks between doses #1 and #3. Give adults on hemodialysis or with other immune-compromising conditions 1 dose. <strong>Schedule for those who have fallen behind:</strong> If the series is delayed between doses, DO NOT start the series over. Continue from where the schedule was interrupted.</td>
<td>(mild illness is not a contraindication)</td>
</tr>
</tbody>
</table>

**Contraindication**

Previous severe allergic reaction (e.g. anaphylaxis) to this vaccine or to any of its components.

**Precaution**

Moderate or severe acute illness.
<table>
<thead>
<tr>
<th><strong>Vaccine name and route</strong></th>
<th><strong>People for whom vaccination is recommended</strong></th>
<th><strong>Schedule for vaccination administration</strong></th>
<th><strong>Schedule for vaccination administration</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Influenza</strong></td>
<td></td>
<td></td>
<td><strong>Contraindications</strong></td>
</tr>
<tr>
<td>Inactivated Influenza vaccine (IIIV*)</td>
<td><em>Give IM or ID (intradermally)</em></td>
<td>Give 1 dose every year in the fall or winter.</td>
<td>Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine, to any of its components, including egg protein. Adults with egg allergy of any severity may receive RIV or, adults who experience only hives with exposure to eggs may receive other IIIV with additional safety precautions (i.e., observe patient for 30 minutes after receipt of vaccine for signs of a reaction).</td>
</tr>
<tr>
<td><em>includes recombinant influenza vaccine (RIV)</em></td>
<td></td>
<td></td>
<td>For LAIV only: pregnancy; immunosuppression; receipt of specific antivirals within the previous 48hrs. Avoid use of these anti-viral drugs for 14d after vaccination.</td>
</tr>
<tr>
<td>Live attenuated influenza vaccine (LAIV)</td>
<td><em>Give intranasally</em></td>
<td></td>
<td><strong>Precautions</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Moderate or severe acute illness.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>History of Guillain-Barré syndrome (GBS) within 6wks following previous influenza vaccination.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>For LAIV only: Chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, neurologic, hematologic, or metabolic (including diabetes) disorders; immuno-suppression (including that caused by medications or HIV).</td>
</tr>
<tr>
<td>Vaccine name and route</td>
<td>People for whom vaccination is recommended</td>
<td>Schedule for vaccination administration</td>
<td>Schedule for vaccination administration</td>
</tr>
<tr>
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<tr>
<td><strong>Td, Tdap</strong></td>
<td>All people who lack written documentation of a primary series consisting of at least 3 doses of tetanus- and diphtheria-toxoid-containing vaccine. A booster dose of Td or Tdap may be needed for wound management. <strong>For Tdap only:</strong> Adults who have not already received Tdap or whose Tdap history is not known. Healthcare personnel of all ages. Give Tdap to pregnant women during each pregnancy (preferred during 27—36 weeks’ gestation), regardless of the interval since prior Td or Tdap.</td>
<td>For people who are unvaccinated or behind, complete the primary Td series (spaced at 0, 1 to 2m, 6 to 12m inter- vals); Substitute a one-time dose of Tdap for one of the doses in the series, preferably the first. Give Td booster every 10yrs after the primary series has been completed. Tdap should be given regardless of interval since previous Td.</td>
<td><strong>Contraindications</strong></td>
</tr>
<tr>
<td>(Tetanus, diphtheria, pertussis) <em>Give IM</em> Do not use tetanus toxoid (TT) in place of Tdap or Td.</td>
<td></td>
<td></td>
<td>- Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. - For Tdap only, history of encephalopathy not attributable to an identifiable cause, within 7d following DTP/DTaP, or Tdap. <strong>Precautions</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>For Tdap only:</strong></td>
<td>Moderate or severe acute illness. Guillain-Barré syndrome within 6wks following previous dose of Tetanus-toxoid-containing vaccine. For pertussis-containing vaccines only, progressive or unstable neurologic disorder, uncontrolled seizures, or progressive encephalopathy until a treatment regimen has been established and the condition has stabilized.</td>
</tr>
</tbody>
</table>
2014-2015 Immunization Updates
Recommended Adult Immunization Schedule
United States - 2015

The 2015 Adult Immunization Schedule was approved by the Centers for Disease Control and Prevention’s (CDC) Advisory Committee on Immunization Practices (ACIP), American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), the American College of Obstetricians and Gynecologists (ACOG), and the American College of Nurse-Midwives (ACNM). On February 3, 2015, the adult immunization schedule and a summary of changes from 2014 were published in the *Annals of Internal Medicine*, and a summary of changes was published in the *Morbidity and Mortality Weekly Report (MMWR)* on February 5, 2015.

All clinically significant postvaccination reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.

Additional details regarding ACIP recommendations for each of the vaccines listed in the schedule can be found at [www.cdc.gov/vaccines/hcp/acip-recs/index.html](http://www.cdc.gov/vaccines/hcp/acip-recs/index.html).

- American Academy of Family Physicians (AAFP)
  [www.aafp.org/](http://www.aafp.org/)

- American College of Physicians (ACP)
  [www.acponline.org/](http://www.acponline.org/)

- American College of Obstetricians and Gynecologists (ACOG)
  [www.acog.org/](http://www.acog.org/)

- American College of Nurse-Midwives (ACNM)
  [www.midwife.org/](http://www.midwife.org/)
Recommended Adult Immunization Schedule—United States - 2015

Note: These recommendations must be read with the footnotes that follow containing number of doses, intervals between doses, and other important information.

Figure 1. Recommended adult immunization schedule, by vaccine and age group

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>AGE GROUP 19-21 years</th>
<th>22-26 years</th>
<th>27-49 years</th>
<th>50-59 years</th>
<th>60-64 years</th>
<th>≥ 65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza*2</td>
<td>1 dose annually</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetanus, diphtheria, pertussis (Td/Tdap)*3</td>
<td>Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Varicella*4</td>
<td>2 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human papillomavirus (HPV) Female*5</td>
<td>3 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human papillomavirus (HPV) Male*5</td>
<td>3 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoster*</td>
<td>1 dose</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR)*7</td>
<td>1 or 2 doses</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal 13-valent conjugate (PCV13)*8</td>
<td>1-time dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal polysaccharide (PPSV23)*9</td>
<td>1 or 2 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal*9</td>
<td>1 or more doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A*10</td>
<td>2 doses</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Hepatitis B*11</td>
<td>3 doses</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Haemophilus influenza type b (Hib)*12</td>
<td>1 or 3 doses</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*Covered by the Vaccine Injury Compensation Program

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For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indication)

No recommendation

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at [www.hrsa.gov/vaccinecompensation](http://www.hrsa.gov/vaccinecompensation) or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-357-6400.

Additional information about the vaccines in this schedule, extent of available data, and contraindications for vaccination is also available at [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines) or from the CDC-INFO Contact Center at 800-CDC-INFO (800-232-4636) in English and Spanish, 8:00 a.m. – 8:00 p.m. Eastern Time, Monday - Friday, excluding holidays.

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.

The recommendations in this schedule were approved by the Centers for Disease Control and Prevention’s (CDC) Advisory Committee on Immunization Practices (ACIP), the American Academy of Family Physicians (AAFP), the America College of Physicians (ACP), American College of Obstetricians and Gynecologists (ACOG) and American College of Nurse-Midwives (ACNM).
<table>
<thead>
<tr>
<th>VACCINE ▼</th>
<th>INDICATION ▶</th>
<th>Pregnancy</th>
<th>Immuno-compromising conditions (excluding human immunodeficiency virus [HIV])</th>
<th>HIV infection CD4+ T lymphocyte count</th>
<th>Men who have sex with men (MSM)</th>
<th>Kidney failure, end-stage renal disease, receipt of hemodialysis</th>
<th>Heart disease, chronic lung disease, chronic alcoholism</th>
<th>Asplenia (including elective splenectomy and persistent complement component deficiencies)</th>
<th>Chronic liver disease</th>
<th>Diabetes</th>
<th>Healthcare personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza1&lt;sup&gt;3&lt;/sup&gt;</td>
<td>1 dose IIV annually</td>
<td>1 dose IIV or LAIV annually</td>
<td>1 dose IIV annually</td>
<td>1 dose IIV or LAIV annually</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tetanus, diphtheria, pertussis (Td/Tdap)1&lt;sup&gt;5&lt;/sup&gt;</td>
<td>1 dose Tdap each pregnancy</td>
<td>Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella1&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Contraindicated</td>
<td>2 doses</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Human papillomavirus (HPV) Female&lt;sup&gt;5&lt;/sup&gt;</td>
<td>3 doses through age 26 yrs</td>
<td>3 doses through age 26 yrs</td>
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</tr>
<tr>
<td>Human papillomavirus (HPV) Male&lt;sup&gt;5&lt;/sup&gt;</td>
<td>3 doses through age 26 yrs</td>
<td>3 doses through age 21 yrs</td>
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<tr>
<td>Zoster&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Contraindicated</td>
<td>1 dose</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR)&lt;sup&gt;7&lt;/sup&gt;</td>
<td>Contraindicated</td>
<td>1 or 2 doses</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal 13-valent conjugate (PCV13)&lt;sup&gt;8&lt;/sup&gt;</td>
<td></td>
<td>1 dose</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal polysaccharide (PPSV23)&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
<td>1 or 2 doses</td>
<td></td>
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<td></td>
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<tr>
<td>Meningococcal&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
<td>1 or more doses</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Hepatitis A&lt;sup&gt;10&lt;/sup&gt;</td>
<td></td>
<td>2 doses</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B&lt;sup&gt;11&lt;/sup&gt;</td>
<td></td>
<td>3 doses</td>
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<td></td>
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<tr>
<td>Haemophilus influenzae type b (Hib)&lt;sup&gt;12&lt;/sup&gt;</td>
<td>post-HSCT recipients only</td>
<td>1 or 3 doses</td>
<td></td>
<td></td>
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</tbody>
</table>

*Covered by the Vaccine Injury Compensation Program

For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection, zoster vaccine recommended regardless of prior episode of zoster

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

No recommendation

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly recommended for adults ages 19 years and older, as of February 1, 2015. For all vaccines being recommended on the Adult Immunization Schedule: a vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements from the Advisory Committee on Immunization Practices (www.cdc.gov/vaccines/hcp/acip-recs/index.html). 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.
Footnotes—Recommended Immunization Schedule for Adults Aged 19 Years or Older: United States, 2015

1. Additional information
   - Additional guidance for the vaccines described in this supplement is available at www.cdc.gov/vaccines/hcp/accip/recs/index.htm.
   - Information on vaccine coverage for adults who have sex with men who have sex with men (MSM) and the risk of HIV transmission is available at www.cdc.gov/mmwr/preview/mmwrhtml/rr6002a1.htm.
   - Information on travel vaccine requirements and recommendations (e.g., for hepatitis A and B, meningococcal, and other vaccines) is available at www.cdc.gov/travel.
   - Additional information and resources regarding vaccination of pregnant women are found at www.cdc.gov/vaccines/adults/rec/vac-pregnant.html.

2. Influenza vaccination
   - Annual vaccination against influenza is recommended for all persons aged 6 months of age or older.
   - Persons aged 6 months or older, including pregnant women and persons with hives only allergy to eggs can receive the inactivated influenza vaccine (IIV). An age-appropriate IIV formulation should be used.
   - Annual influenza vaccination is recommended for all persons aged 18 years or older who can receive the recombinant influenza vaccine (RIV) and can be given to age-appropriate persons with egg allergy of any severity.
   - Healthy, nonpregnant household contacts can receive either intranasally administered live, attenuated influenza vaccine (LAIV) or RIV.
   - Health care personnel who care for severely immunocompromised persons who require care in a protected environment should receive RIV, and health care personnel who receive LAIV should avoid providing care for severely immunosuppressed persons for 7 days after vaccination.
   - The intramuscularly or intradermally administered IIV are options for adults aged 18 through 64 years.
   - Adults aged 65 years or older can receive the standard-dose IIV or the high-dose IIV (Fluzone High-Dose).
   - A list of currently available influenza vaccines can be found at www.cdc.gov/flu/prevent/vaccine/vaccines.htm.

3. Tetanus, diphtheria, and acellular pertussis (Tdap/Td) vaccination
   - Adults aged 18 years or older should receive Tdap vaccine to prevent pertussis in their household contacts (preferably during 27 to 36 weeks’ gestation) regardless of interval since prior Td vaccination.
   - Persons aged 11 years or older who have not received Tdap vaccine or for whom vaccine status is unknown should receive a dose of Tdap. In 2012, the tetanus and diphtheria toxoids (Td) booster doses every 10 years thereafter.
   - Tdap can be administered regardless of interval since the most recent tetanus or diphtheria toxoid-containing vaccine.
   - Adults with an unknown or incomplete history of completing a 3-dose primary pertussis vaccination series with Td-containing vaccines should begin or complete the primary vaccination series including a Tdap dose.
   - For vaccinated adults, administer the first 2 doses at least 4 weeks apart and the third dose 6 to 12 months after the second.
   - For incompletely vaccinated (i.e., less than 3 doses) adults, administer remaining doses.
   - For the ACIP statement for recommendations for administering Td/Tdap as prophylaxis in wound management (see footnote 1).

4. Varicella vaccination
   - All adults without evidence of immunity to varicella (as defined below) should receive 2 doses of single-antigen varicella vaccine or a second dose if they have received only 1 dose before age 18 years.
   - Vaccination should be emphasized for those who have close contact with persons at high risk for severe disease (e.g., health care personnel and family contacts of children with immunodeficiency conditions) or who are at high risk for exposure or transmission (e.g., teachers; child care employees; residents and staff members of institutional settings, including correctional institutions; college students; military personnel; adolescents and adults living in households with children with childhood-onset or international travelers).
   - Pregnant women should be assessed for evidence of varicella immunity.
   - Women who do not have evidence of immunity should receive the first dose of varicella vaccine upon completion of pregnancy and before discharge from the health care facility. The second dose should be administered 4 to 8 weeks after the first dose.
   - Evidence of immunity to varicella in adults includes any of the following:
     - Documentation of 2 doses of varicella vaccine at least 4 weeks apart;
     - Documentation of varicella disease in childhood.
   - History of varicella disease in childhood, including varicella syndrome, is not evidence of immunity for vaccination.
   - Laboratory documentation of immunity or laboratory confirmation of disease.

5. Human papillomavirus (HPV) vaccination
   - Two vaccines are licensed for use in females, bivalent HPV vaccine (HPV2) and quadrivalent HPV vaccine (HPV4), and one HPV vaccine for use in males (HPV4).
   - For females, either HPV4 or HPV2 is recommended in a 3-dose series for routine vaccination at age 11 or 12 years and for those aged 13 through 26 years, if not previously vaccinated.
   - For males, HPV4 is recommended in a 3-dose series for routine vaccination at age 11 or 12 years and for those aged 13 through 21 years, if not previously vaccinated.
   - Males aged 22 through 26 years may be vaccinated.
   - HPV4 is recommended for men who have sex with men (MSM) regardless of age and any other general immunization information can be found in the HPV vaccination schedule. The recommendations are based on the characteristics of HPV infection and vaccine failure among MSM and should be followed when MSM are vaccinated.
   - Vaccination is not recommended for men who have sex with men (MSM) or for those who have sex with women who are sexually active (i.e., at risk for HPV infection) through age 26 years for those who do not get any or all doses when they were younger. MSM should be vaccinated when they are sexually active.
   - A complete series for either HPV4 or HPV2 consists of 3 doses. The second dose should be administered 6 weeks after the first dose; the third dose should be administered 24 weeks after the first dose (minimum interval of at least 12 weeks).
   - HPV4 vaccines are not recommended for use in pregnant women. However, pregnancy testing is not needed before vaccination. If a woman is found to be pregnant after initiating the vaccination series, other intervention is needed.
   - HPV4 vaccines are not recommended for use in pregnant women. However, pregnancy testing is not needed before vaccination. If a woman is found to be pregnant after initiating the vaccination series, other intervention is needed.
   - The remainder of the 3-dose series should be delayed until completion or termination of pregnancy.

6. Zoster vaccine
   - A single dose of zoster vaccine is recommended for adults aged 60 years or older who do not have any contraindications to the vaccine.
   - Although the vaccine is licensed by the U.S. Food and Drug Administration for use in adults aged 50 years and older, ACIP recommends that vaccination begin at age 60 years.
   - Persons aged 60 years or older who have a reduced immunocompetence may be vaccinated unless their condition constitutes a contraindication, such as severe immunosuppression.

7. Measles, mumps, rubella (MMR) vaccination
   - Adults born before 1957 are generally considered immune to measles and mumps. All adults born in 1957 or later should have documentation of 1 or more doses of MMR vaccine unless they have a medical contraindication to the vaccine or laboratory evidence of immunity to each of the three diseases.
   - Documentation of provider-diagnosed disease is not considered acceptable evidence of immunity for measles, mumps, or rubella.

8. Pneumococcal (13-valent pneumococcal conjugate vaccine [PCV13] and 23-valent pneumococcal polysaccharide vaccine [PPSV23]) vaccination
   - General information:
     - When indicated, only a single dose of PCV13 is recommended for adults.
   - No additional dose of PPSV23 is indicated for adults vaccinated with PCV13 at or after age 65 years.
   - When both PCV13 and PPSV23 are indicated, PCV13 should be administered first; PPSV23 need not be administered during the same visit.
   - When indicated, PCV13 and PPSV23 should be administered to adults whose pneumococcal vaccination history is incomplete or unknown.
   - Adults aged 65 years or older who have received PCV13 or PPSV23: Administer PCV13 followed by PPSV23 in 6 to 12 months.
   - Adults aged 65 years or older have received PCV13 but have received a dose of PPSV23 at age 65 years or older: Administer PCV13 at least 1 year after the dose of PPSV23 received at age 65 years or older.

(Continued on next page)
8. Pneumococcal vaccination (continued)
— Have not received PCV13 but have received 1 or more doses of PPV23 before age 65; Administer PCV13 at least 1 year after the most recent dose of PPV23; administer a dose of PPV23 6 to 12 months after PCV13, or as soon as possible if this time window has passed, and at least 5 years after the most recent dose of PPV23.
— Have received PCV13 but not PPV23 before age 65; Administer PPV23 6 to 12 months after PCV13, or as soon as possible if this time window has passed.
— Have received PCV13 and 1 or more doses of PPV23 before age 65; Administer PPV23 6 to 12 months after PCV13, or as soon as possible if this time window has passed, and at least 5 years after the most recent dose of PPV23.
— Have received PCV13 but not PPV23 before age 65; Administer PPV23 6 to 12 months after PCV13, or as soon as possible if this time window has passed.
— Have received PCV13 and 1 or more doses of PPV23 before age 65; Administer PPV23 6 to 12 months after PCV13, or as soon as possible if this time window has passed, and at least 5 years after the most recent dose of PPV23.

9. Meningococcal vaccination
— Administer meningococcal conjugate vaccine (MCV4); a single dose of meningococcal polysaccharide vaccine (MPSV4); or a combination of both vaccines if meningococcal disease vaccination is indicated.

10. Hepatitis A vaccination
— Vaccinate any person seeking protection from hepatitis A virus (HAV) infection and persons with any of the following indications:
— men who have sex with men and persons who use injection- or non-injection illicit drugs
— persons working with HAV-infected primates or with HAV in a research laboratory setting
— persons with chronic liver disease and persons who receive clotting factor concentrates
— persons traveling or working in countries that have high or intermediate endemicity of hepatitis A and unvaccinated persons who anticipate close personal contact (e.g., household or regular babysitting) with an international adoptee during the first 60 days after arrival in the United States from a country with high or intermediate endemicity (see footnote 1 for more information on travel recommendations). The first dose of the 2-dose hepatitis A vaccine series should be administered as soon as adoption is planned ideally 2 or more weeks before the arrival of the adoptee.

11. Hepatitis B vaccination
— Vaccinate persons with any of the following indications and any person seeking protection from hepatitis B virus (HBV) infection:
— sexually active persons who are not in a long-term, mutually monogamous relationship (e.g., persons with more than 1 sex partner during the previous 6 months); persons seeking evaluation or treatment for a sexually transmitted disease (STD); current or recent injection drug users; and men who have sex with men;
— health care personnel and public safety workers who are potentially exposed to blood or other infectious materials;
— persons with diabetes who are younger than 60 years as soon as feasible after diagnosis; persons with diabetes who are age 60 years or older at the discretion of the treating clinician based on the likelihood of acquiring HBV infection, including increased need for assisted glucose monitoring in long-term care facilities, the likelihood of experiencing chronic sequelae if infected with HBV, and the likelihood of immune response to vaccination;
— persons with end-stage renal disease, including patients receiving hemodialysis, persons with HIV infection and persons with chronic liver disease;
— household contacts and sex partners of hepatitis B surface antigen-positive persons; and volunteers and staff of laboratories and institutions.

12. Haemophilus influenzae type b (Hib) vaccination
— One dose of Hib vaccine should be administered to persons who have received an inactivated meningococcal vaccine and are undergoing elective splenectomy if they have not previously received Hib vaccine. Hib vaccination before 14 or more days before splenectomy is suggested.
— Recipients of a hematopoietic stem cell transplant (HSCT) should be vaccinated with a 3-dose regimen 3 to 6 weeks after a successful transplant, regardless of vaccination history; at least 4 doses should be given.
— Hib vaccine is not recommended for adults with HIV infection since their risk for Hib infection is low.

13. Immuno-compromising conditions
— Inactivated vaccines generally are acceptable (e.g., pneumococcal, meningococcal, and inactivated influenza vaccine) and live vaccines generally are avoided in persons with immune deficiencies or immunocompromising conditions. Information on specific conditions is available at www.cdc.gov/vaccines/hcp/acip-recs/index.html.
Changes for 2014-2015 (19 yrs and older)

- Hib
  - Stem cell transplant
  - HIV
- RIV and IIV
  - Hives only allergy
- Td/Tdap
  - Single dose for previously unvaccinated 11 yrs and older
  - Td every 10 years
  - Each pregnancy (27-36 weeks gestation)

MMWR, 63(05); 110-112.
Changes for 2014-2015 (19 yrs and older)

- HPV
  - HCW
- PCV13
  - Recommended before PPSV23
- Meningococcal conjugate □ 1 or 2 doses
  - Meningococcal conjugate versus the meningococcal polysaccharide quadrivalent
- Contraindication:
  - RIV
  - HIB

MMWR. 63(05); 110-112
Changes for 2014-2015 (19 yrs and older)

- For all vaccine that have been started and not followed up on, continue the series where it was left on.
- Zoster vaccine - 60 years and greater regardless of history of shingle.
- Adults aged 18 years or older can receive the recombinant influenza vaccine (RIV) (FluBlok). RIV does not contain any egg protein and can be given to age-appropriate persons with egg allergy of any severity.
Egg Allergies

Recommendations regarding influenza vaccination of persons who report allergy to eggs — Advisory Committee on Immunization Practices, United States, 2014–15 influenza season

Abbreviations:
IIV = inactivated influenza vaccine;
RIV3 = recombinant influenza vaccine, trivalent.
Can the person eat lightly cooked egg (e.g., scrambled egg) without reaction?*+  

Yes → Administer vaccine per usual protocol

No → After eating eggs or egg-containing foods, does the person experience ONLY hives?  

Yes → Administer RIV3, if patient is aged 18 through 49 yrs OR Administer IIV. Observe for reaction for at least 30 minutes after vaccination

No → After eating eggs or egg-containing foods, does the individual experience other symptoms such as:  
• Cardiovascular changes (e.g., hypotension)  
• Respiratory distress (e.g., wheezing)  
• Gastrointestinal (e.g., nausea or vomiting)  
• Reaction requiring epinephrine  
• Reaction requiring emergency medical attention  

Yes → Administer RIV3, if patient is aged 18 through 49 yrs OR If RIV3 is not available, or patient is aged <18 years or >49 years, IIV should be administered by a physician with experience in the recognition and management of severe allergic conditions. Observe for reaction for at least 30 minutes after vaccination
Advantage of Vaccination

Influenza vaccine

• Canadian study showed a 59% reduction in flu-related hospitalization.

• 2/3 of severe flu activity involved individuals younger than 65.

• 2013/2014 flu vaccine 61% effective but too few adults receive it.
Strategies to Improve Vaccination’s Rate

- Awareness (DDA nurses do not have an understanding about what vaccines are needed)
- Explanation of potential risks
- Clarify misunderstandings
- Ask your physician if the person supported needs a particular vaccine
- Update immunization records
References


References


Resources

- www.cdc.gov/vaccines/hcp/acip-recs/index.html.
- http://www.cdc.gov/mmwr/
Questions ?