

**Recommended Adult Immunization Schedule  
United States, 2009  
Proposed Revisions**

**Advisory Committee on Immunization Practices  
October 22-23, 2007**



**DEPARTMENT OF HEALTH AND HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL AND PREVENTION**



SAFER · HEALTHIER · PEOPLE

# Adult Immunization Working Group

- Paul Cieslak\*
- Kristen Ehresmann\*
- Frank Judson
- Jon Temte
- Richard Clover
- Jeff Duchin
- Kristen Ehresmann
- Stanley Gall
- Pierce Gardner
- Kristen Nichol
- Greg Poland
- Joni Reynolds
- William Schaffner
- Marcia Shew
- Jean Haulman
- Stephen Foster
- Litjen Tan
- Diane Petersen
- Richard Zimmerman
- Gina Mootrey (CDC staff)

\*WG chair



# Adult Immunization Working Group Current Activities

- **Monthly calls**
  - Schedule revisions
  - Focus groups on usefulness of Adult Schedule
- **Separate calls with the General Recommendations Working Group**
  - Adult section



# Assessment of Adult Immunization Schedule

- **Investigators**
  - Matthew Davis, Dianne Singer, Sarah Clark (U of MI)
- **Objectives**
  - Evaluate health-care providers' application of the 2007-08 adult immunization schedule
  - Identify opportunities for improvement of the schedule
- **Methods**
  - Conducted focus groups in 8 community-based private practices (family medicine and internal medicine) in 6 metropolitan areas, during January-April 2008
  - 88 respondents: physicians (34%), nurse practitioners (4%), physician assistants (1%), nurses (24%), medical assistants (37%)



# Assessment of Adult Immunization Schedule

- Major findings
  - 22% almost always ask about immunization status
    - 47% occasionally or never ask
  - 45% very comfortable using adult immunization schedule
    - 17% have never seen schedule
  - ~1/3 correctly identified recommended vaccines in 3 clinical vignettes



# Assessment of Adult Immunization Schedule

- **Participant suggestions for changes**
  - Improve formatting to reduce confusion
  - Clarify or expand content
    - Especially for new vaccines
  - Develop other versions
    - E.g., online point and click ability, online decision tool
- **Suggestions included in 2009 schedule**
  - Legend for blank cells, age groups more distinct, clarify and simplify Td/Tdap graphic presentation



# **Adult Immunization Working Group Future Activities**

- **Publish Recommended Adult Immunization Schedule January 2009**
- **Complete revision of Health Care Personnel Recommendations, with HICPAC**
- **Incorporate Adult Immunization Recommendations (1991) into the next General Recommendations**



# Proposed Changes Adult Immunization Schedule 2009



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL AND PREVENTION



SAFER · HEALTHIER · PEOPLE



# Recommended Adult Immunization Schedule by Vaccine and Age Group UNITED STATES • OCTOBER 2007–SEPTEMBER 2008

# DRAFT

VACCINE ▼	AGE GROUP ▶	19–49 years	50–64 years	≥65 years
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>1,*</sup>		1 dose Td booster every 10 yrs		
		Substitute 1 dose of Tdap for Td		
Human papillomavirus (HPV) <sup>2,*</sup>		3 doses females (0, 2, 6 mos)		
Measles, mumps, rubella (MMR) <sup>3,*</sup>		1 or 2 doses	1 dose	
Varicella <sup>4,*</sup>		2 doses (0, 4–8 wks)		
Influenza <sup>5,*</sup>			1 dose annually	
Pneumococcal (polysaccharide) <sup>6,7</sup>		1–2 doses		1 dose
Hepatitis A <sup>8,*</sup>		2 doses (0, 6–12 mos or 0, 6–18 mos)		
Hepatitis B <sup>9,*</sup>		3 doses (0, 1–2, 4–6 mos)		
Meningococcal <sup>10,*</sup>		1 or more doses		
Zoster <sup>11</sup>				1 dose

\*Covered by the Vaccine Injury Compensation Program. NOTE: These recommendations must be read with the footnotes (see reverse).

For all persons in this category who meet the age requirements and/or who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

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

This schedule indicates the recommended age groups and medical indications for routine administration of currently licensed vaccines for persons aged ≥19 years, as of October 1, 2007. 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/pubs/ACIP-list.htm](http://www.cdc.gov/vaccines/pubs/ACIP-list.htm)).

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, 24 hours a day, 7 days a week.

# Enhancements

## Age Group Schedule and Box

- Increased number of age groups from 3 to 5
  - 19-26 years
  - 27-49 years
  - 50-59 years
  - 60-64 years
  - 65 years and older
- Removed vaccination schedule text from vaccine bars
  - Schedule information remains in the footnotes
- Td/Tdap
  - Deleted hatched yellow bar for Tdap
  - Added text to explain when Td or Tdap indicated



# Recommended Adult Immunization Schedule

UNITED STATES - 2009


**DRAFT**


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**

VACCINE ▼	AGE GROUP ▶	19–26 years	27–49 years	50–59 years	60–64 years	≥65 years
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>1,*</sup>		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yr				Td booster every 10 yrs
Human papillomavirus (HPV) <sup>2,*</sup>		3 doses (females)				
Varicella <sup>3,*</sup>		2 doses				
Zoster <sup>4</sup>					1 dose	
Measles, mumps, rubella (MMR) <sup>5,*</sup>		1 or 2 doses		1 dose		
Influenza <sup>6,*</sup>		1 dose annually				
Pneumococcal (polysaccharide) <sup>7,8</sup>		1 or 2 doses				1 dose
Hepatitis A <sup>9,*</sup>		2 doses				
Hepatitis B <sup>10,*</sup>		3 doses				
Meningococcal <sup>11,*</sup>		1 or more doses				

\*Covered by the Vaccine Injury Compensation Program.

 For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

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

 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, 24 hours a day, 7 days a week.

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.

# Enhancements

## Age Group Schedule and Box

- Order of vaccines revised
- Legend box for blank spaces in schedule





# Recommended Adult Immunization Schedule

UNITED STATES - 2009


**DRAFT**


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**

VACCINE ▼	AGE GROUP ▶	19–26 years	27–49 years	50–59 years	60–64 years	≥65 years
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>1,*</sup>		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yr				Td booster every 10 yrs
Human papillomavirus (HPV) <sup>2,*</sup>		3 doses (females)				
Varicella <sup>3,*</sup>		2 doses				
Zoster <sup>4</sup>					1 dose	
Measles, mumps, rubella (MMR) <sup>5,*</sup>		1 or 2 doses		1 dose		
Influenza <sup>6,*</sup>		1 dose annually				
Pneumococcal (polysaccharide) <sup>7,8</sup>		1 or 2 doses				1 dose
Hepatitis A <sup>9,*</sup>		2 doses				
Hepatitis B <sup>10,*</sup>		3 doses				
Meningococcal <sup>11,*</sup>		1 or more doses				

\*Covered by the Vaccine Injury Compensation Program.

 For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

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

 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, 24 hours a day, 7 days a week.


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.

**Figure 2. Vaccines that might be indicated for adults based on medical and other indications United States, October 2007 – September 2008**

VACCINE ▼	INDICATION ▶	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]), medications, radiation <sup>13</sup>	HIV infection <sup>3,12,13</sup> CD4+ T lymphocyte count		Diabetes, heart disease, chronic pulmonary disease, chronic alcoholism	Asplenia <sup>12</sup> (including elective splenectomy and terminal complement component deficiencies)	Chronic liver disease	Kidney failure, end-stage renal disease, receipt of hemodialysis	Health-care personnel
				<200 cells/ $\mu$ L	$\geq$ 200 cells/ $\mu$ L					
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>1,*</sup>	1 dose Td booster every 10 yrs									
	Substitute 1 dose of Tdap for Td									
Human papillomavirus (HPV) <sup>2,*</sup>	3 doses for females through age 26 yrs (0, 2, 6 mos)									
Measles, mumps, rubella (MMR) <sup>3,*</sup>	Contraindicated			1 or 2 doses						
Varicella <sup>4,*</sup>	Contraindicated			2 doses (0, 4–8 wks)						
Influenza <sup>5,*</sup>	1 dose TIV annually								1 dose TIV or LAIV annually	
Pneumococcal (polysaccharide) <sup>6,7</sup>	1–2 doses									
Hepatitis A <sup>8,*</sup>	2 doses (0, 6–12 mos, or 0, 6–18 mos)									
Hepatitis B <sup>9,*</sup>	3 doses (0, 1–2, 4–6 mos)									
Meningococcal <sup>10,*</sup>	1 or more doses									
Zoster <sup>11</sup>	Contraindicated			1 dose						

\*Covered by the Vaccine Injury Compensation Program.

 For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

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

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly indicated for adults ages 19 years and older, as of October 1, 2007. 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/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm)).

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 American College of Obstetricians and Gynecologists (ACOG), and the American College of Physicians (ACP).



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL AND PREVENTION



# Medical and Other Indications Schedule Enhancements

- Revised column heading for immunocompromising conditions by deleting the words “medication, radiation”








**Figure 2. Vaccines that might be indicated for adults based on medical and other indications**

VACCINE ▼	INDICATION ▶	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) <sup>13</sup>	HIV infection <sup>3,12,13</sup> CD4+ T lymphocyte count		Diabetes, heart disease, chronic lung disease, chronic alcoholism	Asplenia <sup>12</sup> (including elective splenectomy and complement deficiencies)	Chronic liver disease	Kidney failure, end-stage renal disease, receipt of hemodialysis	Health-care personnel
				<200 cells/μL	≥200 cells/μL					
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>1,*</sup>	Td only	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs								
Human papillomavirus(HPV) <sup>2,*</sup>		3 doses for females through age 26 yrs								
Varicella <sup>3,*</sup>	Contraindicated			2 doses						
Zoster <sup>4</sup>	Contraindicated			1 dose						
Measles, mumps, rubella (MMR) <sup>5,*</sup>	Contraindicated			1 or 2 doses						
Influenza <sup>6,*</sup>	1 dose TIV annually									1 dose TIV or LAIV annually
Pneumococcal (polysaccharide) <sup>7,8</sup>			1 or 2 doses							
Hepatitis A <sup>9,*</sup>			2 doses							
Hepatitis B <sup>10,*</sup>			3 doses							
Meningococcal <sup>11,*</sup>			1 or more doses							

\*Covered by the Vaccine Injury Compensation Program.

 For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

 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 indicated for adults ages 19 years and older, as of January 1, 2009. 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/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm)).

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 American College of Obstetricians and Gynecologists (ACOG), and the American College of Physicians (ACP).



# Medical and Other Indications Schedule Enhancements


- Order of vaccines revised
- Removed vaccination schedule text from vaccine bars
  - Schedule information remains in the footnotes
- Legend box for blank spaces in schedule





**Figure 2. Vaccines that might be indicated for adults based on medical and other indications**

VACCINE ▼	INDICATION ▶	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) <sup>13</sup>	HIV infection <sup>3,12,13</sup> CD4+ T lymphocyte count		Diabetes, heart disease, chronic lung disease, chronic alcoholism	Asplenia <sup>12</sup> (including elective splenectomy and complement component deficiencies)	Chronic liver disease	Kidney failure, end-stage renal disease, receipt of hemodialysis	Health-care personnel
				<200 cells/μL	≥200 cells/μL					
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>1,*</sup>		Td only	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs							
Human papillomavirus(HPV) <sup>2,*</sup>			3 doses for females through age 26 yrs							
Varicella <sup>3,*</sup>		Contraindicated								2 doses
Zoster <sup>4</sup>		Contraindicated								1 dose
Measles, mumps, rubella (MMR) <sup>5,*</sup>		Contraindicated								1 or 2 doses
Influenza <sup>6,*</sup>										1 dose TIV annually
Pneumococcal (polysaccharide) <sup>7,8</sup>										1 or 2 doses
Hepatitis A <sup>9,*</sup>										2 doses
Hepatitis B <sup>10,*</sup>										3 doses
Meningococcal <sup>11,*</sup>										1 or more doses

\* Covered by the Vaccine Injury Compensation Program.

 For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

 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 indicated for adults ages 19 years and older, as of January 1, 2009. 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/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm)).

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 American College of Obstetricians and Gynecologists (ACOG), and the American College of Physicians (ACP).

# Medical and Other Indications Schedule Enhancements


- **Td/Tdap**
  - Deleted hatched yellow bar for Tdap
  - Added text to explain when Td or Tdap indicated
  - Added text to clarify that only Td indicated during pregnancy




**Figure 2. Vaccines that might be indicated for adults based on medical and other indications**

VACCINE ▼	INDICATION ▶	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) <sup>13</sup>	HIV infection <sup>3,12,13</sup> CD4+ T lymphocyte count		Diabetes, heart disease, chronic lung disease, chronic alcoholism	Asplenia <sup>12</sup> (including elective splenectomy and complement deficiencies)	Chronic liver disease	Kidney failure, end-stage renal disease, receipt of hemodialysis	Health-care personnel																				
				<200 cells/µL	≥200 cells/µL																									
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>1,*</sup>	Td only										Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs																			
Human papillomavirus(HPV) <sup>2,*</sup>											3 doses for females through age 26 yrs																			
Varicella <sup>3,*</sup>	Contraindicated										2 doses																			
Zoster <sup>4</sup>	Contraindicated										1 dose																			
Measles, mumps, rubella (MMR) <sup>5,*</sup>	Contraindicated										1 or 2 doses																			
Influenza <sup>6,*</sup>											1 dose TIV annually										1 dose TIV or LAIV annually									
Pneumococcal (polysaccharide) <sup>7,8</sup>											1 or 2 doses																			
Hepatitis A <sup>9,*</sup>											2 doses																			
Hepatitis B <sup>10,*</sup>											3 doses																			
Meningococcal <sup>11,*</sup>											1 or more doses																			

\*Covered by the Vaccine Injury Compensation Program.

 For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

 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 indicated for adults ages 19 years and older, as of January 1, 2009. 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/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm)).

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 American College of Obstetricians and Gynecologists (ACOG), and the American College of Physicians (ACP).



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL AND PREVENTION



# General Footnote Enhancements

- Replaced symbols with text
  - <12 months now *less than* 12 months



# Human Papillomavirus (HPV)

## Footnote #2 has been revised to:

- **Mention vaccine can be given to females as young as 9 years**
- *HPV vaccination is recommended for females 11 through 26 years (and as young as 9 years) who have not completed the vaccine series.*



# Human Papillomavirus (HPV)

## Footnote #2 has been revised to:

- **Mention that health-care personnel are not at increased risk due to occupational exposure**
  - *Health-care personnel are not at increased risk due to occupation exposure, and should be vaccinated consistent with age-based recommendations.*





# Varicella

## Footnote #3 has been revised to:

- Clarify when one or two doses are indicated
  - All adults without evidence of immunity to varicella should receive 2 doses of single-antigen varicella vaccine *if not previously vaccinated or the second dose if they have received only one dose unless they have a medical contraindication. Adults who previously received only 1 dose of varicella vaccine should receive a second dose.*





# Varicella

**Footnote #3 has been revised to:**

- **Add verification of herpes zoster by a health-care provider as a requirement for evidence of immunity**
  - Evidence of immunity to varicella in adults includes any of the following: 4) history of herpes zoster based on health-care provider **diagnosis** *or verification of herpes zoster by a health-care provider*



# Measles, Mumps, Rubella

## Footnote #5 has been revised to:

- **Clarify mumps second dose recommendation**
  - **A second dose of MMR is recommended for adults who 1) *live in a community experiencing a mumps outbreak and are in an affected age group***



# Influenza

Footnote #6 has been revised to:

- **Clarify occupational indications to include all health-care personnel and add caregivers**
  - *All health-care personnel, including those employed by long-term-care and assisted-living facilities, and caregivers of children less than 5 years old*



## PPV

**Footnote # 7 has been revised to:**

- **Include asthma as a chronic lung disease indication**
- **Medical indications: Chronic *lung* disease (*including asthma*);**



# Hepatitis A

**Footnote #9 has been revised to:**

- **Include additional information for the 4-dose combined hepatitis A and hepatitis B vaccine**
  - **If the combined hepatitis A and hepatitis B vaccine (Twinrix®) is used, administer 3 doses at 0,1, and 6 months; *alternatively, a 4-dose schedule, administered on days 0,7, and 21 to 30 followed by a booster dose at month 12 may be used***



# Hepatitis B

**Footnote #10 has been revised to:**

- **Include additional information for the 4-dose combined hepatitis A and hepatitis B vaccine**
  - **If the combined hepatitis A and hepatitis B vaccine (Twinrix®) is used, administer 3 doses at 0,1, and 6 months; *alternatively, a 4-dose schedule, administered on days 0,7, and 21 to 30 followed by a booster dose at month 12 may be used***



# Hepatitis B

Footnote #10 has been revised to:

- Clarify schedule information for special formulation indications
  - For adult patients receiving hemodialysis or with other immunocompromising conditions, 1 dose of 40 µg/mL (Recombivax HB®) administered *on a 3-dose schedule* or 2 doses of 20 µg/mL (Engerix-B®) administered *simultaneously on a 4-dose schedule at 0, 1, 2 and 6 months*



# **Meningococcal Disease**

## **Footnote # 11 has been revised to:**

- **Clarify that revaccination might be indicated after 5 years**
  - **Revaccination after 5 years might be indicated for adults previously vaccinated with MPSV who remain at increased risk for infection (e.g., persons residing in areas in which disease is epidemic)**





# Thank you!

# Questions?



**DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
**CENTERS FOR DISEASE CONTROL AND PREVENTION**



SAFER · HEALTHIER · PEOPLE