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# Adult Immunization Update for VFA Providers

Dr. Cora Hoover

CDPH Immunization Branch

[cora.hoover@cdph.ca.gov](mailto:cora.hoover@cdph.ca.gov)

# Agenda

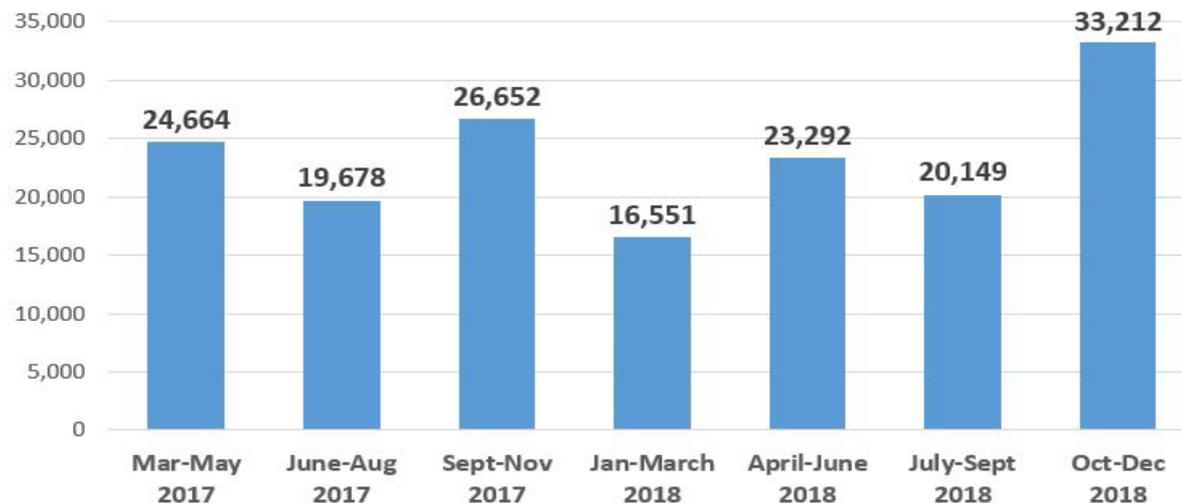
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- Program Overview
- 2019 ACIP Immunization Recommendations: Updates to the Adult Immunization Schedule
  - **Focus on Hepatitis A and B updates**
- Adult Immunization Schedule review
  - By age
  - Special populations/indications
- Adult immunization rates in the US and CA: What do the data show?
- Adult immunization best practices
- Next steps
  - How can you share this information with your colleagues?
  - How will this change your practice?

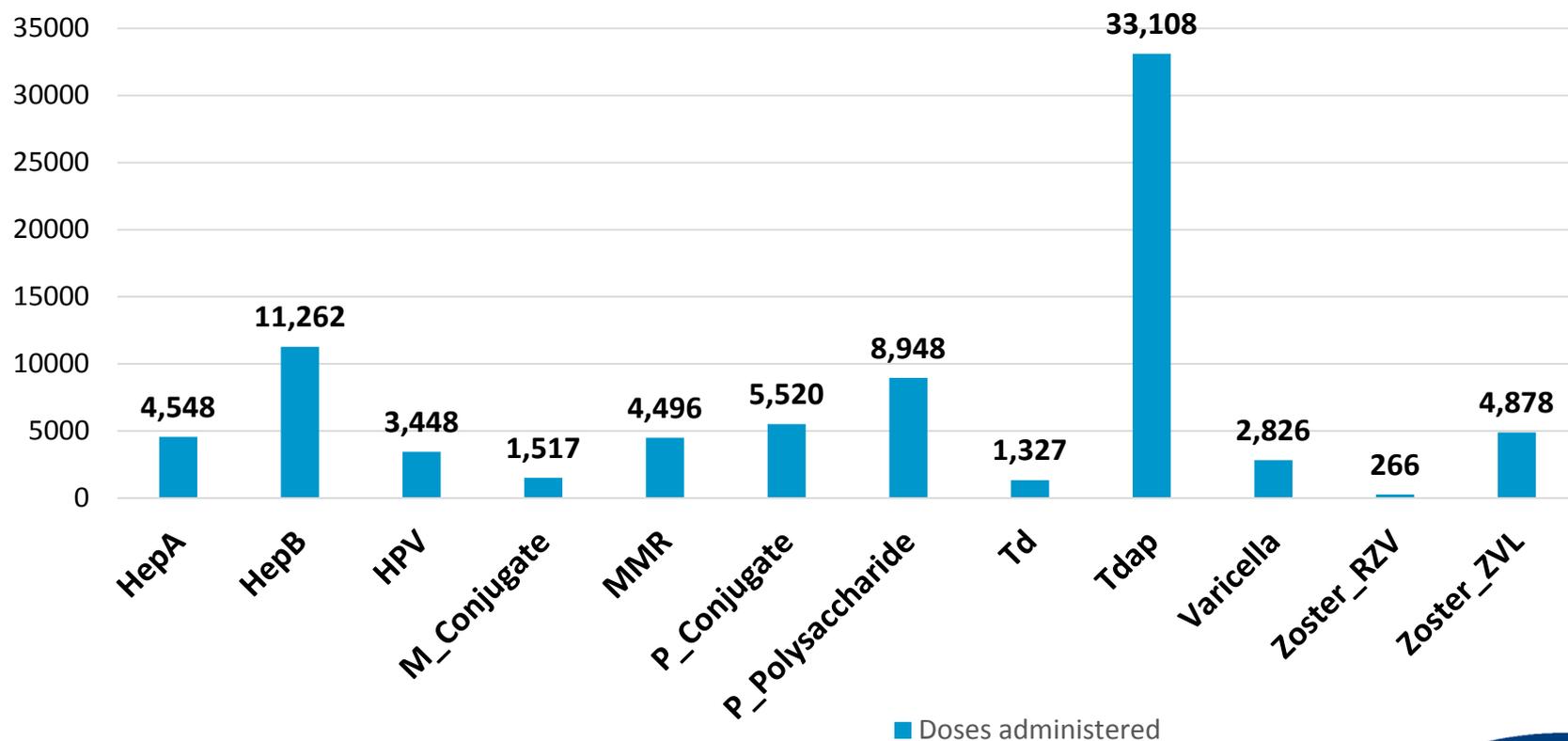
# VFA Program Overview

- Total of 492 providers enrolled in the program
- Doses administered over past 2 years

VFA Vaccines Doses Administered, Reported Quarterly

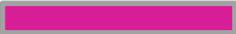


# VFA Doses Administered by Vaccine, 2018



# Adult Immunization Schedule: New format for 2019

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- A new look! Take time to familiarize yourself with separate age-based and indications-based tables
  - Precaution 
  - Delay in vaccination 
  - Contraindication 
  - Indications-based recommendation only 

<https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>

- Vaccine schedules app for providers—2019 version available in early March

<https://www.cdc.gov/vaccines/schedules/hcp/schedule-app.html#download>

# Table 1. Recommended Adult Immunization Schedule for ages 19 years or older, United States, 2019

Always make recommendations by determining needed vaccines based on age (Table 1), assessing for medical conditions and other indications (Table 2), and reviewing special situations (Notes).

 [Get Email Updates](#)

**Table 1. By age**

**Table 2. By indications**

Changes to this year's schedule

Resources for health care providers

Resources for adults

Download schedules app

- [8.5"x11" print color](#)  [6 pages]
- [8.5"x11" print black and white](#)  [6 pages]

- [Compliant version of this schedule](#)
- [Vaccines in the Adult Immunization Schedule](#)

- [Learn how to display current schedules from your website.](#)

**Legend**

 Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection

 Recommended vaccination for adults with an additional risk factor or another indication

 No recommendation

Vaccine	19-21 years	22-26 years	27-49 years	50-64 years	≥ 65 years
<a href="#">Influenza inactivated</a> ⓘ (IIV) or <a href="#">Influenza recombinant</a> (RIV)	1 dose annually				
or <a href="#">Influenza live attenuated</a> ⓘ (LAIV)					
<a href="#">Tetanus, diphtheria, pertussis</a> ⓘ (Tdap or Td)	1 dose Tdap, then Td booster every 10 yrs				
<a href="#">Measles, mumps, rubella</a> ⓘ (MMR)	1 or 2 doses depending on indication (if born in 1957 or later)				
<a href="#">Varicella</a> ⓘ (VAR)	2 doses (if born in 1980 or later)				

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection

Recommended vaccination for adults with an additional risk factor or another indication

Precaution—vaccine might be indicated if benefit of protection outweighs risk of adverse reaction

Delay vaccination until after pregnancy if vaccine is indicated

No recommendation

Contraindicated—vaccine should not be administered because of risk for serious adverse reaction

Vaccine	Pregnancy	Immuno-compromised (excluding HIV infection)	HIV infection CD4 count		Asplenia, complement deficiencies	End-stage renal disease, on hemodialysis	Heart or lung disease, alcoholism <sup>1</sup>	Chronic liver disease	Diabetes	Health care personnel <sup>2</sup>	Men who have sex with men
			<200	≥200							
<a href="#">IIV</a> ⓘ or <a href="#">RIV</a>	1 dose annually										
or <a href="#">LAIV</a> ⓘ	CONTRAINDICATED					PRECAUTION				or 1 dose annually	
<a href="#">Tdap</a> ⓘ or <a href="#">Td</a>	1 dose Tdap each pregnancy	1 dose Tdap, then Td booster every 10 yrs									
<a href="#">MMR</a> ⓘ	CONTRAINDICATED			1 or 2 doses depending on indication							
<a href="#">VAR</a> ⓘ	CONTRAINDICATED			2 doses							
<a href="#">RZV</a> ⓘ (preferred)	DELAY					2 doses at age ≥50 yrs					
or <a href="#">ZVL</a> ⓘ	CONTRAINDICATED							or 1 dose at age ≥60 yrs			
<a href="#">HPV</a> ⓘ Female	DELAY	3 doses through age 26 yrs			2 or 3 doses through age 26 yrs						

# Adult Immunization Schedule Changes for 2019

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- Separate listing of LAIV and IIV; clearer contraindications and precautions for LAIV
- Guidance for Heplisav-B, including use in a series with Engerix
- Hepatitis A vaccine for patients experiencing homelessness

<https://www.cdc.gov/vaccines/schedules/hcp/schedule-changes.html>

# Heplisav B

- New single-antigen hepatitis B vaccine product
- Heplisav-B is routinely administered in 2 doses given at least 4 weeks apart.
- Heplisav-B can be used as a substitute in a 3-dose series with a different hepatitis B vaccine, but a valid series requires 2 doses of Heplisav-B with at least 4 weeks between doses.
- Available through the VFA program!

For Health Professionals

## Hepatitis B Vaccine for Adults 18+ Years: Timing and Number of Doses

### 2 Doses of HEPLISAV-B® Vaccine

Two doses of HEPLISAV-B® administered at least 4 weeks apart complete a series, even if doses of Enerix-B® or Recombivax HB® were given any time before, during or after the doses of HEPLISAV-B®.

HEPLISAV-B®

At least  
4 weeks

HEPLISAV-B®

### 3 Doses of Enerix-B® or Recombivax HB® Vaccine

These intervals also apply to any order of 1 dose of HEPLISAV-B® and 2 doses of Enerix-B® or Recombivax HB®.

Enerix-B® or  
Recombivax  
HB®

At least  
4 weeks

Enerix-B® or  
Recombivax  
HB®

At least  
8 weeks

Enerix-B® or  
Recombivax  
HB®

At least 16 weeks between 1<sup>st</sup> and 3<sup>rd</sup> dose

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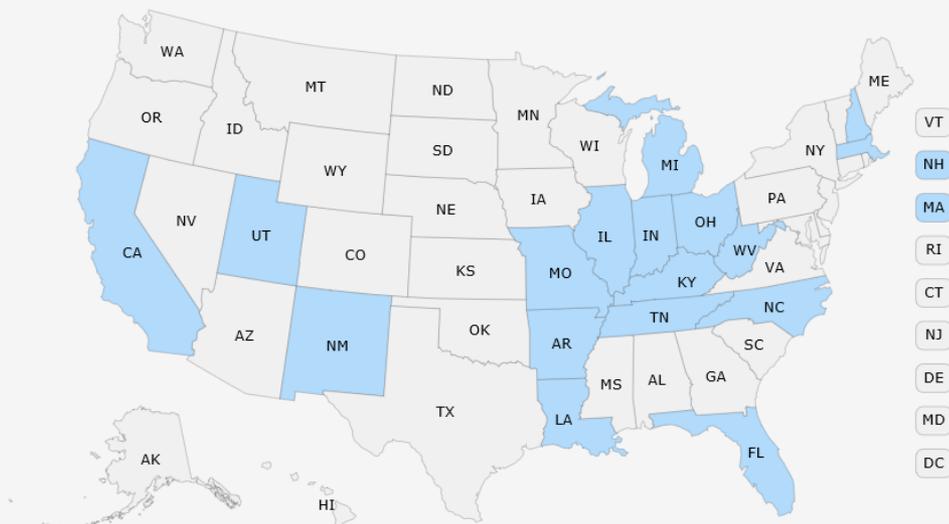
# Hepatitis A immunization for patients experiencing homelessness

- Homelessness is now an indication for hepatitis A immunization for adults (See <https://www.cdc.gov/mmwr/volumes/68/wr/mm6806a6.htm>)
- Either the 2-dose single-antigen vaccine or 3-dose combination hepatitis A and B vaccine can be used
- This new recommendation is in direct response to the severe hepatitis A outbreaks that have occurred or are still occurring in various regions of the US (including in CA in 2016-18)



# Hepatitis A outbreaks among persons who are experiencing homelessness and/or who use drugs, 2016-present

State-Specific Hepatitis A Outbreak Information - click for state's website



<https://www.cdc.gov/hepatitis/outbreaks/2017March-HepatitisA.htm>

- >7,000 outbreak cases from multiple states as of late 2018, including CA
- Higher than expected hospitalization and death rates may occur due to delays in care and underlying chronic conditions.

# California is vulnerable to another Hepatitis A outbreak

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- Prior outbreaks in San Diego (2016-18; 592 cases and 20 deaths), Santa Cruz (76 cases), Los Angeles and Monterey.
- According to the Dept. of Housing and Urban Development, 24% of individuals experiencing homelessness in the US are in CA (130,000). 47% of these individuals are unsheltered.
- If another outbreak gets started in CA, it will be very challenging to control.
- “Integrating routine Hepatitis A vaccination into health care services for persons experiencing homelessness can reduce the size of the at-risk population over time and thereby reduce the risk for large-scale outbreaks.”

<https://www.cdc.gov/mmwr/volumes/68/wr/mm6806a6.htm>



# Urgent need for prevention

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- Individuals experiencing homelessness and/or who use drugs:
  - May not have access to handwashing facilities and/or toilets
  - May have close contact with people living in limited sanitation situations
  - Are more likely to have chronic liver disease and thus are more vulnerable to hepatitis A complications

# Urgent need for prevention

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- **Don't miss opportunities to immunize this patient population:**
  - Offer Hep A IZ at every clinic visit; provide patient education and a strong recommendation.
  - If any concerns about follow-up, don't need to check serology before immunizing.
- **If your clinic is interested in making enhanced efforts to vaccinate this population, let us or your local health department know**
  - May be especially relevant for clinics that are HCH grantees and/or participants in County Whole Person Care pilot programs

# Don't forget about other indications for adult Hepatitis A immunization...

- Chronic liver disease
- Injection or non-injection drug use
- Men who have sex with men
- Travel to countries with high or intermediate endemic hepatitis A
- Per patient request

**Yes, hepatitis A can be prevented!**

The best protection is to get vaccinated.  
The vaccine is safe and highly effective.



Image courtesy of the Public Health Image Library.  
Photo Credit: James Gathany

# Adult Immunization Schedule review: Case examples

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- Example #1: HIV-positive MSM, age 50, CD4 count 450
- What vaccines are recommended for this patient?
- <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>

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## Legend

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection

Recommended vaccination for adults with an additional risk factor or another indication

Precaution—vaccine might be indicated if benefit of protection outweighs risk of adverse reaction

Delay vaccination until after pregnancy if vaccine is indicated

Contraindicated—vaccine should not be administered because of risk for serious adverse reaction

No recommendation

# Age-Based Indications: Table 1



Vaccine	19-21 years	22-26 years	27-49 years	50-64 years
<a href="#">Influenza inactivated</a> (IIV) or <a href="#">Influenza recombinant</a> (RIV)	1 dose annually			
or <a href="#">Influenza live attenuated</a> (LAIV)				
<a href="#">Tetanus, diphtheria, pertussis</a> (Tdap or Td)	1 dose Tdap, then Td booster every 10 yrs			
<a href="#">Measles, mumps, rubella</a> (MMR)	1 or 2 doses depending on indication (if born in 1957 or later)			
<a href="#">Varicella</a> (VAR)	2 doses (if born in 1980 or later)			
<a href="#">Zoster recombinant</a> (RZV) (preferred)				
or <a href="#">Zoster live</a> (ZVL)				
<a href="#">Human papillomavirus</a> (HPV) Female	2 or 3 doses depending on age at initial vaccination			
<a href="#">Human papillomavirus</a> (HPV) Male	2 or 3 doses depending on age at initial vaccination			
<a href="#">Pneumococcal conjugate</a>				

Vaccine	19-21 years	22-26 years	27-49 years	50-64 years	≥ 65 years
<a href="#">Pneumococcal conjugate</a> ⓘ (PCV13)					1 dose
<a href="#">Pneumococcal polysaccharide</a> ⓘ (PPSV23)	1 or 2 doses depending on indication				1 dose
<a href="#">Hepatitis A</a> ⓘ (HepA)	2 or 3 doses depending on vaccine				
<a href="#">Hepatitis B</a> ⓘ (HepB)	2 or 3 doses depending on vaccine				
<a href="#">Meningococcal A, C, W, Y</a> ⓘ (MenACWY)	1 or 2 doses depending on indication, then booster every 5 yrs if risk remains				
<a href="#">Meningococcal B</a> ⓘ (MenB)	2 or 3 doses depending on vaccine and indication				
<a href="#">Haemophilus influenzae type b</a> ⓘ (Hib)	1 or 3 doses depending on indication				

# Medical Conditions and Other Indications: Table 2

Vaccine	Pregnancy	Immuno-compromised (excluding HIV infection)	HIV infection CD4 count		Asplenia, complement deficiencies	End-stage renal disease, on hemodialysis	Heart or lung disease, alcoholism <sup>1</sup>	Chronic liver disease	Diabetes	Health care personnel <sup>2</sup>	Men who have sex with men	
			<200	≥200								
<b>IIV</b> ⓘ or <b>RIV</b>	1 dose annually											
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<b>Tdap</b> or <b>Td</b> ⓘ	1 dose Tdap each pregnancy	1 dose Tdap, then Td booster every 10 yrs										
<b>MMR</b> ⓘ	CONTRAINDICATED			1 or 2 doses depending on indication								
<b>VAR</b> ⓘ	CONTRAINDICATED			2 doses								
<b>RZV</b> (preferred) ⓘ	DELAY				2 doses at age ≥50 yrs							
or <b>ZVL</b> ⓘ	CONTRAINDICATED				or 1 dose at age ≥60 yrs							
<b>HPV</b> ⓘ Female	DELAY	3 doses through age 26 yrs			2 or 3 doses through age 26 yrs							
<b>HPV</b> ⓘ Male		3 doses through age 26 yrs			2 or 3 doses through age 21 yrs							2 or 3 doses through age 26 yrs



# Need to check serologies before immunizing? What kind of documentation needed when making decisions re: which vaccines to administer?

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- With the exception of influenza vaccine and PPSV23, providers should only accept written, dated records as evidence of vaccination; self-reported doses of influenza vaccine and PPSV23 are acceptable.
- Although vaccinations should not be postponed if records cannot be found, an attempt to locate missing records should be made by contacting previous health care providers, reviewing CAIR or local registry, and searching for a personally held record. If records cannot be located within a reasonable time, these persons should be considered susceptible and started on the age-appropriate vaccination schedule.
- Serologic testing for immunity is an alternative to vaccination for certain antigens (e.g., measles, rubella, hepatitis A, and tetanus). However, commercial serologic testing might not always be sufficiently sensitive or standardized for detection of vaccine-induced immunity (with the exception of hepatitis B vaccination at 1-2 months after the final dose), and research laboratory testing might not be readily available.

# Adult Immunization Schedule review:

## Case examples

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- Example #2: Diabetic woman, age 40 (non-pregnant)
- What vaccines are recommended for this patient?
- <https://www.cdc.gov/vaccines/schedules/hcp/imz/adult.html>

# Age-Based Indications: Table 1



Vaccine	19-21 years	22-26 years	27-49 years	50-64 years
<a href="#">Influenza inactivated</a> (IIV) or <a href="#">Influenza recombinant</a> (RIV)	1 dose annually			
or <a href="#">Influenza live attenuated</a> (LAIV)				
<a href="#">Tetanus, diphtheria, pertussis</a> (Tdap or Td)	1 dose Tdap, then Td booster every 10 yrs			
<a href="#">Measles, mumps, rubella</a> (MMR)	1 or 2 doses depending on indication (if born in 1957 or later)			
<a href="#">Varicella</a> (VAR)	2 doses (if born in 1980 or later)			
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or <a href="#">Zoster live</a> (ZVL)				
<a href="#">Human papillomavirus</a> (HPV) Female	2 or 3 doses depending on age at initial vaccination			
<a href="#">Human papillomavirus</a> (HPV) Male	2 or 3 doses depending on age at initial vaccination			
<a href="#">Pneumococcal conjugate</a>	1 dose			

# Medical Conditions and Other Indications: Table 2



Vaccine	Pregnancy	Immuno-compromised (excluding HIV infection)	HIV infection CD4 count		Asplenia, complement deficiencies	End-stage renal disease, on hemodialysis	Heart or lung disease, alcoholism <sup>1</sup>	Chronic liver disease	Diabetes	Health care personnel <sup>2</sup>	Men who have sex with men	
			<200	≥200								
<a href="#">IIV</a> ⓘ or <a href="#">RIV</a>	1 dose annually											
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<a href="#">HPV</a> ⓘ Female	DELAY	3 doses through age 26 yrs			2 or 3 doses through age 26 yrs							
<a href="#">HPV</a> ⓘ Male		3 doses through age 26 yrs			2 or 3 doses through age 21 yrs						2 or 3 doses through age 26 yrs	

# Medical Conditions and Other Indications: Table 2



Vaccine	Pregnancy	Immuno-compromised (excluding HIV infection)	HIV infection CD4 count		Asplenia, complement deficiencies	End-stage renal disease, on hemodialysis	Heart or lung disease, alcoholism <sup>1</sup>	Chronic liver disease	Diabetes	Health care personnel <sup>2</sup>	Men who have sex with men
			<200	≥200							
<a href="#">PCV13</a> ⓘ											1 dose
<a href="#">PPSV23</a> ⓘ											1, 2, or 3 doses depending on age and indication
<a href="#">HepA</a> ⓘ								2 or 3 doses depending on vaccine			
<a href="#">HepB</a> ⓘ								2 or 3 doses depending on vaccine			
<a href="#">MenACWY</a> ⓘ								1 or 2 doses depending on indication, then booster every 5 yrs if risk remains			
<a href="#">MenB</a> ⓘ	PRECAUTION							2 or 3 doses depending on indication			
<a href="#">Hib</a> ⓘ		3 doses HSCT <sup>3</sup> recipients only						1 dose			

# Adult Immunization Practice Standards

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- ASSESS immunization status of all your patients at every clinical encounter
- Strongly RECOMMEND vaccines that patients need
  - **A recommendation from their healthcare professional is the strongest predictor of whether patients get vaccinated**
- ADMINISTER the vaccine or REFER to a vaccination provider
- DOCUMENT vaccines received by your patient

<https://www.cdc.gov/vaccines/hcp/adults/for-practice/standards/index.html>

# Adult Immunization Best Practices

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## Strong recommendation

- “I see you need to get a pneumococcal vaccine. Would you like to get it today?”
- **How would you restate this as a strong recommendation?**



# Adult Immunization Best Practices

## Strong recommendation

- “I see you need to get a pneumococcal vaccine. Would you like to get it today?”
- **How would you restate this as a strong recommendation?**
  - **Timeframe (You are due for your vaccine today!)**
  - **Benefit to the patient/reason for the immunization**
  - **Recommendation**

## SAMPLE Scripts



[https://www.medscape.com/viewarticle/842874\\_4](https://www.medscape.com/viewarticle/842874_4)

# Adult Immunization Best Practices

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- ACOG project
  - Identify a champion
  - Educate all clinic staff about immunizations—a shared responsibility
  - Assign IZ responsibilities to non-physician staff
  - Create standard processes for assessing, recommending, administering, and documenting vaccines
- <http://immunizationforwomen.org/uploads/images/Downloads/Integrating%20Immunizations%20Final%20Report.pdf>

# Barriers to Adult Immunization

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## What barriers do you face in your clinic?

- Reimbursement?
- Competing priorities for complex patients?
- Stocking some vaccines, not all?
- Staff time?
- Patients refuse immunizations?

# Next steps

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- **How can you share this information with your colleagues?**
- **How will this change your practice?**
- **Are there ways that you can standardize immunization practice in your clinic environment to increase adult immunization rates?**

# Questions?

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Thank you!

Cora Hoover, MD, MPH

[Cora.Hoover@cdph.ca.gov](mailto:Cora.Hoover@cdph.ca.gov)

# Reminders

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- Next ordering cycle: April 2-16, 2019
- Next webinar-summer 2019
- NOTE: Site Visits will be scheduled for select sites in the summer of 2019