

Immunization Update

Indian Health Services
Nurse Consultants
April 23, 2012

Overview

- **ACIP Recommendations: Hepatitis B vaccine for adults with diabetes**
- **ACIP Recommendations: Quadrivalent HPV vaccine for males**
- **Update on ACIP MCV4 Recommendations**
- **Update on ACIP Tdap Recommendations**
- **PCV13 Reminder**
- **Pertussis Booster Requirement Update**
- **VFC Overview**
- **CAIR**

Adults with Diabetes and Hepatitis B

Background

- **Since 1996, 25 of 29 outbreaks of hepatitis B infection in long-term care facilities were reported to CDC involving adults with diabetes receiving assisted blood glucose monitoring**
- **Infection control initiatives alone have not been successful in halting outbreaks**

Hepatitis B Vaccine Safety and Efficacy

- Hepatitis B vaccination appears safe at any age but is less efficacious and less-cost effective among older adults.

ACIP Recommendations: Hepatitis B Vaccine and Adults with Diabetes

- Hepatitis B vaccination should be administered to unvaccinated adults with diabetes who are aged 19 through 59 years of age.
 - Complete series as soon as feasible after diagnosis.
- Hepatitis B vaccination may be administered to unvaccinated adults with diabetes who are ≥ 60 years of age at the discretion of the treating clinician.
 - Assessing their risk and the likelihood of an adequate immune response to vaccination

MMWR. December 23, 2011; 60 (50):1709-1711.

<http://www.cdc.gov/mmwr/pdf/wk/mm6050.pdf>

HPV Vaccine

Updated ACIP Recommendations: Quadrivalent HPV Vaccine (HPV4) for Males

- **ACIP recommends routine vaccination of males aged 11 or 12 years with a 3 dose series of HPV4.**
 - The vaccination series can be started beginning at age 9 years.

MMWR. December 23, 2011; 60 (50):1705-1708.
<http://www.cdc.gov/mmwr/pdf/wk/mm6050.pdf>

Updated ACIP Recommendations: Quadrivalent HPV Vaccine for Males

- HPV4 vaccination is recommended for males aged 13 through 21 years who have not been vaccinated previously or who have not completed the 3-dose series.
- HPV4 vaccination is recommended for men who have sex with men (MSM) and immunocompromised males who are aged 22 through 26 years who haven't been vaccinated previously or who have not completed the 3-dose series.
- Other males aged 22 through 26 years may also be vaccinated.

VFC Eligibility: HPV Vaccine

- For VFC-eligible patients:

Gender	Age	Bivalent HPV Vaccine	Quadrivalent HPV Vaccine
Females	9 through 18 years	Eligible	Eligible
Males	9 through 18 years	Not Eligible	Eligible

Meningococcal Conjugate Vaccine (MCV4)

ACIP Recommendations:

Meningococcal Conjugate Vaccine Booster

- Routine immunization age at 11 – 12 years
- Booster dose recommended at age 16 years for those who received a dose at age 11 through 12 years
 - If vaccinated at age 13 through 15 years, they should receive a one-time booster at age 16 through 18 years
 - Routine vaccination of healthy (non-high risk) persons is not recommended after age 21 years

<http://www.cdc.gov/mmwr/pdf/wk/mm6003.pdf>

<http://www.cdc.gov/mmwr/pdf/wk/mm6040.pdf>

ACIP Recommendations: Meningococcal Conjugate Vaccine

- **MCV4 is recommended for high-risk persons ages 9 months through 55 years**
- **Two-Dose MCV4 Primary Series is recommended for persons:**
 - 9 through 23 months of age
 - Who have functional or anatomic asplenia, persistent complement deficiency or who are HIV positive (with an indication for MCV4 vaccination)

<http://www.cdc.gov/mmwr/pdf/wk/mm6003.pdf>

ACIP Updated Tdap Recommendations

ACIP Recommendations: Tdap

- Adolescents should routinely receive a dose of Tdap at age 11-12 years.
- All adolescents through age 18 years should receive a dose of Tdap if they have not yet received Tdap.

ACIP Recommendations: Tdap

- **Children age 7 through 10 years who are not fully vaccinated against pertussis and who don't have a contraindication, should receive Tdap for pertussis protection.**

<http://www.cdc.gov/mmwr/pdf/wk/mm6001.pdf>

ACIP Recommendations: Tdap

- For adults aged 19 years and older who previously have not received a dose of Tdap, a single dose of Tdap should be given.
 - Includes persons 65 years and older
- Tdap should be administered regardless of interval since the last tetanus or diphtheria toxoid-containing vaccine.
- Adults should receive a Tdap dose if the dose is recommended and no record of previous administration exists.

ACIP Recommendations: Tdap

- **Pregnant females who have not previously received Tdap should receive a dose of Tdap, preferably after 20 weeks gestation.**
 - If not administered during pregnancy, Tdap can be administered immediately postpartum.
- **Tdap may be given at any time after a prior dose of Td to provide pertussis protection. There is no minimum interval.**

<http://www.cdc.gov/mmwr/pdf/wk/mm6041.pdf>

PCV13 Supplemental Dose— Don't Forget!

- A supplemental dose of PCV13 is recommended for all children through the age of 59 months who completed a PCV7 series
- For high risk children, a supplemental dose of PCV13 is recommended through age 71 months and may be given through age 18 years for those high-risk children that completed the PCV7 series.
- Providers should no longer have PCV7 in their refrigerators

Adolescent Immunizations and Pertussis Booster Requirement

AB 354 Reporting Through 4/9/12

>7,700 schools (98%)

>3.0 M students (>98%)

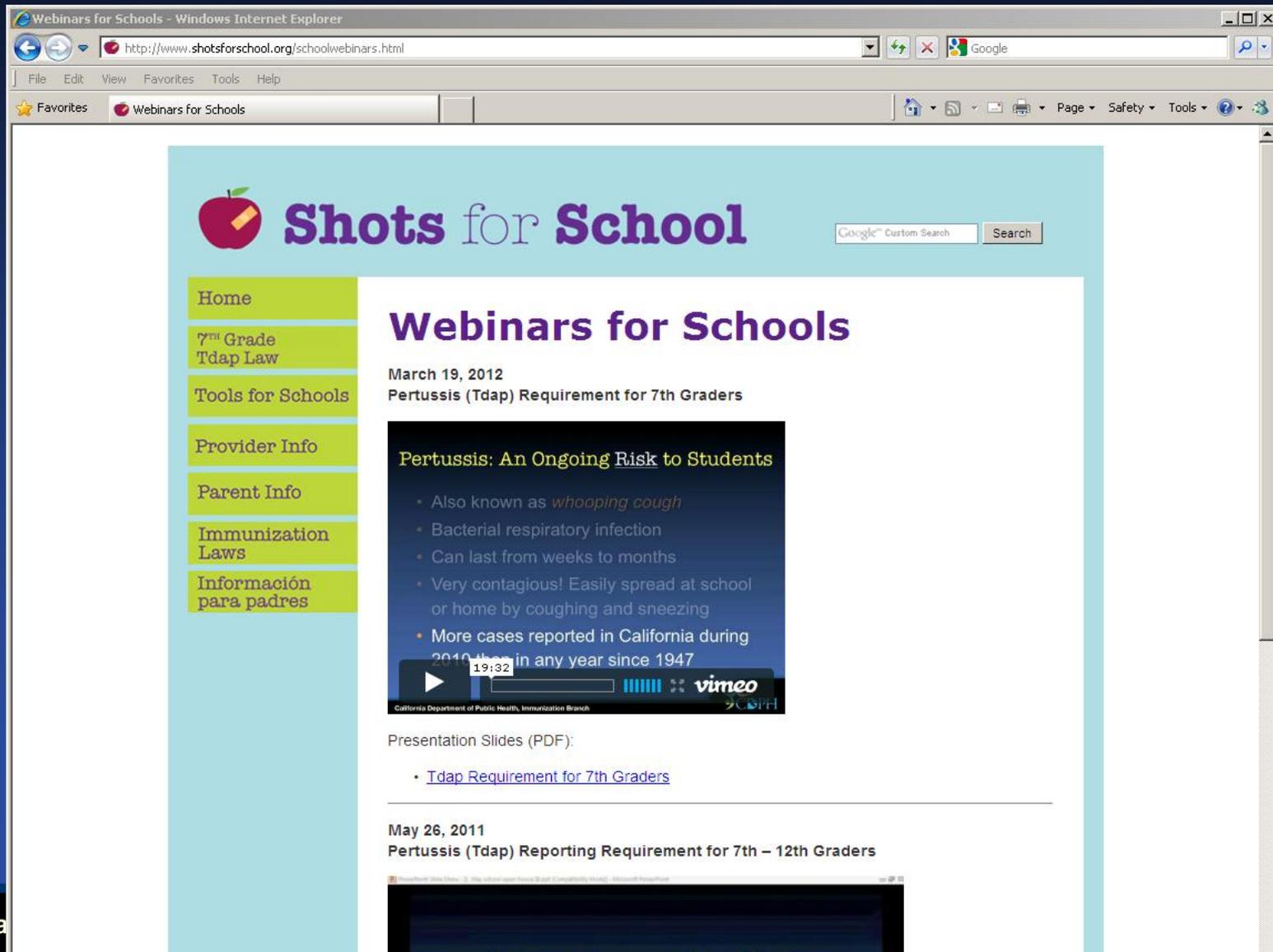
Status	Students	
	Number	Percent
Tdap	2,997,323	97.6%
Permanent Medical Exemption	5,087	0.2%
Personal Beliefs Exemption	68,658	2.2%
Students Enrolled	3,071,068	100.0%

Planning and Implementing Requirement: Lessons Learned

CDPH Survey - What worked well in your efforts to meet 2011-12 Tdap requirement?

- **Start early – maximum lead time**
- **Frequent communications to families**
- **Persistence, hard work**
- **Use of CAIR, SISs, or clear provider records**
- **Organization, teamwork, support from administration**

Resources at www.ShotsForSchool.org



The screenshot shows a Windows Internet Explorer browser window displaying the website <http://www.shotsforschool.org/schoolwebinars.html>. The website features a light blue header with the "Shots for School" logo (an apple with a red bandage) and a search bar. A left sidebar contains navigation links: Home, 7th Grade Tdap Law, Tools for Schools, Provider Info, Parent Info, Immunization Laws, and Información para padres. The main content area is titled "Webinars for Schools" and lists a webinar from March 19, 2012, titled "Pertussis (Tdap) Requirement for 7th Graders". Below the title is a video player with the title "Pertussis: An Ongoing Risk to Students" and a list of bullet points: "Also known as *whooping cough*", "Bacterial respiratory infection", "Can last from weeks to months", "Very contagious! Easily spread at school or home by coughing and sneezing", and "More cases reported in California during 2010 than in any year since 1947". The video player shows a play button and a progress bar at 19:32. Below the video is a link for "Presentation Slides (PDF):" pointing to "[Tdap Requirement for 7th Graders](#)". A second webinar entry for May 26, 2011, titled "Pertussis (Tdap) Reporting Requirement for 7th – 12th Graders" is partially visible at the bottom.

Pertussis Booster Requirement

- Starting 2012-2013 and annually thereafter, the requirement for a pertussis booster (Tdap) for all students before admission to 7th grade will continue as well as students newly admitted to 8th-12th grade from out of California.
 - Remind parents and providers to immunize their 6th graders now!
 - Give Tdap, HPV vaccine (males and females), meningococcal conjugate vaccine, influenza vaccine.
 - Catch-up on other recommended immunizations!
 - E.g., 2 doses of varicella, 2 MMR, 3 hep B
 - www.shotsforschool.org

VACCINES FOR YOUR PRETEEN

Learn about vaccines to help your preteen stay healthy through adolescence and beyond.

To Do

- Tdap
- HPV
- Flu
- Meningococcal
- Chicken pox



Vaccine recommendations for 11-12 yr olds

Tdap protects against tetanus, diphtheria, and pertussis (or whooping cough). Whooping cough can cause vomiting, gasping for air, and trouble sleeping. It may last for months and is very contagious. The Tdap booster helps older kids because their baby shots wear off. Tdap is required for 7th grade entry in California.

HPV (Human papillomavirus) vaccine is recommended for preteen girls and boys. It prevents genital warts and cancer, including cervical cancer, later in life. HPV vaccine works best when given years before the start of sexual activity, which can spread HPV infection. The vaccine is given in three injections over six months.

Flu (Influenza) usually causes fever, chills and body aches that is different from a cold. Even healthy young people can get the flu. Children with chronic conditions like asthma or diabetes are especially at-risk for pneumonia or even death. Kids need flu vaccine every year.

Meningococcal protects against the devastating bacterial infection meningococcal meningitis. The infection can cause brain damage, arm and leg amputations, kidney damage, and death. It is more common among teens and young adults who are in close contact with others at home or school. The vaccine protects with one shot now and a booster at age 16.

Chicken pox (varicella) is more than just an itchy rash. It can cause pneumonia or serious skin infections. Many kids don't get a recommended second booster shot. Ask the doctor if your preteen needs a chicken pox booster.

? Ask the Doctor

- What vaccines does my child need today?
- Does my child need any other catch-up shots (like MMR)?
- How are preteen shots different from baby shots?
- What age should my child get the vaccines?
- Can all shots be done in the same appointment?
- Are there any side effects from these vaccines?
- How long does the protection last?
- Will any booster shots be needed later on?
- Which vaccines are required for school?
- What documentation do I need?
- Is there any cost for preteen shots?
- Can I get an updated shot record after this visit?

? Your Questions

GetImmunized.ca.org IMM-1054 (1/11)
California Department of Public Health
Immunization Branch • 850 Marina Bay Pkwy • Richmond CA 94804



Recommended Immunizations and Preventive Health Care

- **Preteen Health Visit**
 - Visit early during 6th grade school year
 - Avoid a back-to-school rush during summertime
 - Can provide early documentation to schools
 - All recommended immunizations—Tdap, MCV4, HPV, influenza
 - Catch-up immunizations—2 varicella, 3 hep B, 2 MMR, etc.
 - Recommended preventive care

VFC Update

California's VFC Program

- **Represents approximately 10% of the nation's enrolled providers and VFC-eligible children**
 - ~4,000 public and private sites are currently enrolled
 - 4.8 M VFC eligible children (close to 50% of CA's 0-18 year olds)
- **Types of providers include Indian Health Clinics, Pediatric practices, Family practices, Community and Rural Health Centers, Colleges and Universities, Correctional Youth Facilities, Hospitals, Women's Health Clinics and Planned Parenthoods,**
- **Annual vaccine distribution is 10M doses, costing over \$400M**

Vaccine Ordering

- **The VFC Program includes all ACIP-recommended vaccines**
- **CA makes all product, brands and presentations available to enrolled providers.**
- **Providers must order “responsibly”:**
 - in-line with VFC populations served by the practice
 - and according to their order frequency-No hoarding!
 - providers are responsible for all doses of VFC-supplied vaccines
 - are financially responsible for doses lost due to negligence. YES-Expiration is negligence.
- **Providers must account for all doses of VFC-supplied vaccines each time they submit a vaccine order**
- **We recently launched online vaccine ordering for providers: MyVFCVaccines**

Vaccine Ordering

FW: Vaccines for Children (VFC) Program shipment confirmation - Message (HTML)

File Edit View Insert Format Tools Actions Help

Reply Reply to All Forward

From: Aguiluz, Claudia (CDPH-CID-DCDC-IMM-VFC)
To: Phu, Mey (CDPH-CID-DCDC-IMM)
Cc: Volk, Maria (CDPH-CID-DCDC-IMM)
Subject: FW: Vaccines for Children (VFC) Program shipment confirmation

Sent: Thu 2/25/2010 12:30 PM



Vaccines for Children Program

1-877-243-8832 eziz.org

Your Vaccine Order Confirmation

Thank you for your recent VFC Vaccine Request. Your order has been processed and submitted to VFC's National vaccine distributor. Expect delivery within 10 business days.

Clinic Name: CADRIN E GILL MD
VFC PIN: 010026
Order Processing Date: 22-Feb-10

Doses	Vaccine	Description
10	MMR	"Measles, Mumps, Rubella - MMR
10	PNU 7	10-PACK 1 DOSE SYRINGES
20	HIB	"Haemophilus Influenzae, Type
30	TD	10-PACK 1-DOSE VIALS
40	VAR	Varicella - Varivax
50	DTAP	DTAP-INFANRIX-10 X 1 DOSE VIAL
50	EIPV	INACT. POLIO-IPOL-10 DOSE VIAL
50	MCV4	MENINGOCOCCAL CONJUGATE
50	ROTA	10-PACK 2ML TUBES



[Visit our website at eziz.org for more information.](#)

[Check for any back-orders or delays in vaccine delivery.](#)

Provider Communications

- The program has several formats for communicating different types of information with enrolled providers and clinic staff
 - **Program letters**
 - are the formal format for communicating critical program changes, requirements, new vaccines, recommendations, etc.
 - **Target audience:** Providers
 - **FAX Blasts & Email Broadcasts**
 - are used to alert providers of critical communications, provide quick program updates, or share monthly VFC Tips on a variety of different topics
 - **Target Audience:** Clinic managers, Vaccine Managers, MAs
 - **Order Confirmation E-mails**
 - are used to confirm submission of vaccine requests, request additional information to approve an order, and alert vaccine managers of vaccine shipments once orders are approved
 - **Target Audience:** Vaccine Managers

EZIZ: One EZ Stop for lots of IZ Resources! Sign Up to Receive Updates!

EZIZ

Google™ Custom Search

A one-stop shop for immunization training and resources.

- Home
- EZIZ Training
- VFC Program
- Storage & Handling
- Resources
- Contact VFC

Phone: 1-877-243-8832
Business hours: 8:30-5
Fax: 1-877-329-9832

- Find a VFC field representative in your area
- Find other VFC provider offices in your area
- Send us your comments at eziz@cdph.ca.gov

Sign up to receive EZIZ news and VFC letters via email!

Frequently Asked Questions

California VFC Program

- Overview**
Find out how to become a California VFC provider.
- Storage and Handling**
Learn about VFC equipment requirements and how to safely store vaccines.
- VFC Forms**
Download forms for enrolling, vaccine ordering and more.

New Lessons!
EZIZ Training
Interactive lessons, job aids, video demonstrations, and other resources.

myVFC VACCINES
VFC Online Ordering
Place a vaccine order. Order supplemental flu vaccine. Submit a Transfer/Return.

Hot Tips

Download ACIP's 2012 Childhood, Adolescent, and Adult Immunization Schedules

Vaccine Fact Sheets
Download these quick, easy reference documents that provide condensed vaccine information regarding: routine schedules, minimum intervals, approved for use age ranges, administration routes, billing codes, storage, ACIP recommendations and more.

Popular Links

- Printable Materials For Your Practice
- Pertussis Materials
- Flu and Respiratory Disease Prevention
- Immunization Schedule & Recommendations
- Vaccine Information Statements (VIS)
- CAIR Registry
- Disease Surveillance
- Laws and Regulations
- Local Health Departments

VFC Memos	Vaccine Order Status	Other News
<ul style="list-style-type: none">Influenza Update 2012/03/14Vaccine Tips: CDC's 1st Online National Immunization Conference March 2012Recommended ACIP Childhood and Adolescent Immunizations Schedules, 2012; Reminder, Ongoing Pertussis (Tdap) School Requirements for 7th Grade Entry; Vaccine Ordering 2012/03/02Vaccine Tips: Preteen Vaccine Week February 2012Vaccine Tips: Features of Online Ordering and VFC Office Closure Notice January 2012Quadrivalent HPV Vaccine (HPV4) Now Routinely Recommended for Males 2012/01/23REMINDER: VFC Recertification due January 31, 2012 2012/01/20Influenza Supply Update 2012/01/20 Also see: MedImmune's FluMist® 2011-2012 replacement programTetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccine 2012/01/05Introducing VFC's Online Ordering System and "MyVFCVaccines" 11/14/2011 Also see: MyVFCVaccines How-to Guide Introducing MyVFCVaccines Card Vaccine Inventory Form		

VFC Provider Locator

EZ-IZ *A one-stop shop for immunization training and resources.*

- HOME
- EZ-IZ Training
- Vaccine Administration
- Storage & Handling
- VFC Program
- Resources

Find VFC Providers Near You

Enter Address or a Zip Code:

Search Within: miles

[Find Providers](#)

[KAISER PERM. ANTIOCH MEDICAL CENTER](#) (0.7) miles.
Phone: (925) 813-6126
5601 DEER VALLEY RD. ANTIOCH CA 94531
[Get Directions](#)

[MYUNG R CHO MD](#) (1.8) miles.
Phone: (925) 756-3451
4053 LONE TREE WAY STE 200 ANTIOCH CA 94531
[Get Directions](#)

[DELTA PEDIATRICS / ABBAS MAHDAVI MD](#) (2.3) miles.
Phone: (925) 754-7200
3903 LONE TREE WAY SUITE 211 ANTIOCH CA 94509
[Get Directions](#)

[GENE ZIMMERMAN MD](#) (2.4) miles.
Phone: (925) 754-5151
3737 LONE TREE WAY ANTIOCH CA 94509
[Get Directions](#)

[DIABLO VALLEY PEDIATRICS- ANTIOCH](#) (2.4) miles.
Phone: (925) 754-7070
3737 A LONE TREE WAY ANTIOCH CA 94509
[Get Directions](#)

Map | Satellite | Hybrid

POWERED BY Google

Done | Internet | 100%

EZIZ Lessons: Administering, Storing and Monitoring Vaccines!

Lesson: Storing Vaccines

Do you know how much vaccines cost?

VFC vaccine is provided free to your practice, but costs taxpayers millions of dollars each year.

Instructions: Drag vaccines on the left to an item of equal value.

Items on the left: One vial of HPV vaccine, Average refrigerator full of vaccines.

Items on the right: Condominium, Digital camera, Candy bar.

Lesson: Storing Vaccines

Vaccine Storage Units

Refrigerators and freezers:

- Come in many styles and sizes
- Are not equally good at keeping vaccines at the right temperatures
- Come in household, commercial, and pharmaceutical grades
- Must have enough room to hold the year's largest monthly inventory of vaccine—including flu vaccine

California VFC providers' storage units must meet additional requirements.

Instructions: Click each picture to learn about each type of vaccine storage unit, then click **Next** to continue.

Storage units shown: Combination unit, Dorm-style refrigerator (marked with a red X).

Have you completed these lessons?

Lesson: Storing Vaccines

Storing Vaccines in a Refrigerator

Vaccines must be stored properly to ensure that they remain usable. MMR can be stored in either the refrigerator or the freezer. All other vaccines must be stored in the refrigerator.

Instructions: Click the numbers to learn how to store vaccines in a refrigerator.

Diagram showing a refrigerator with numbered steps 1, 2, and 3 for storage.



Lesson: Storing Vaccines

Preparing a Refrigerator for Vaccine Storage

You need to prepare the refrigerator before you store vaccines in it.

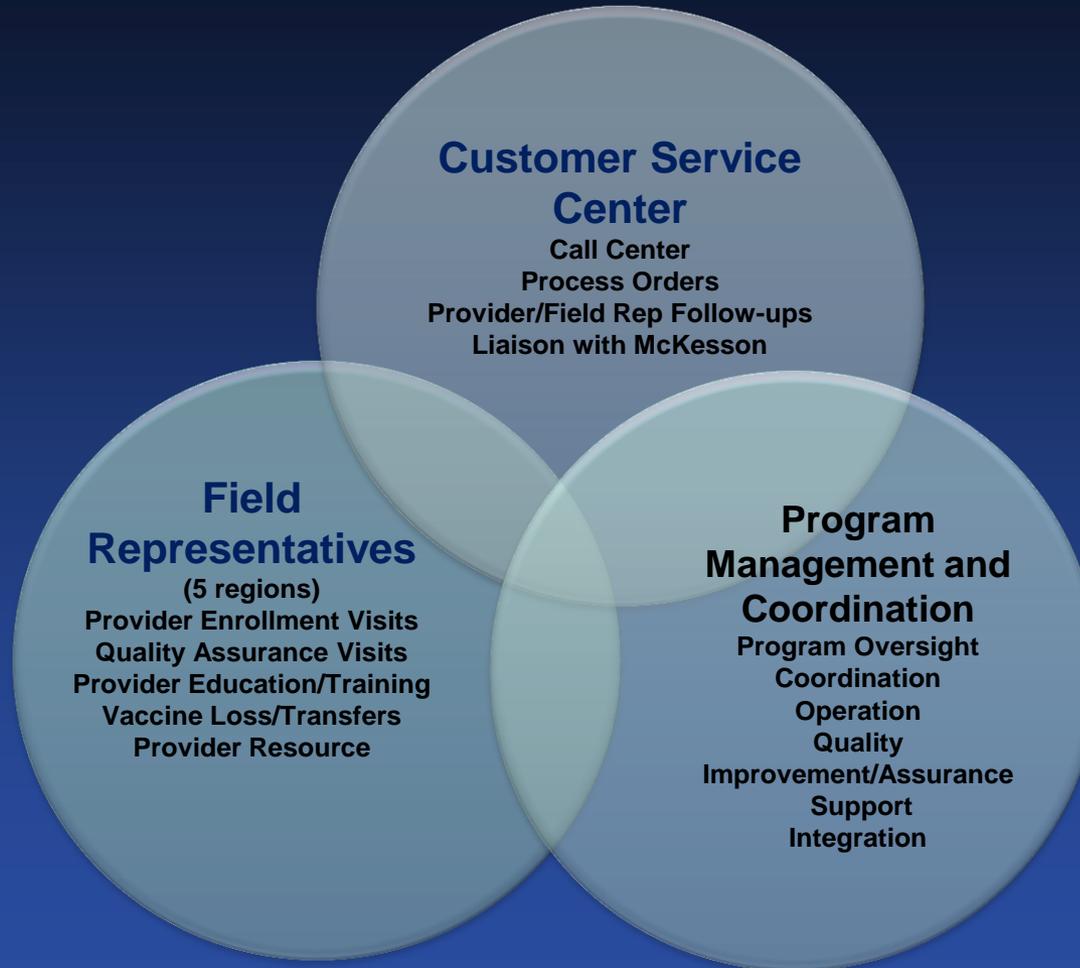
Instructions: Click each step to learn how to prepare a refrigerator for vaccine storage. When done, click **Next** to continue.

Steps:

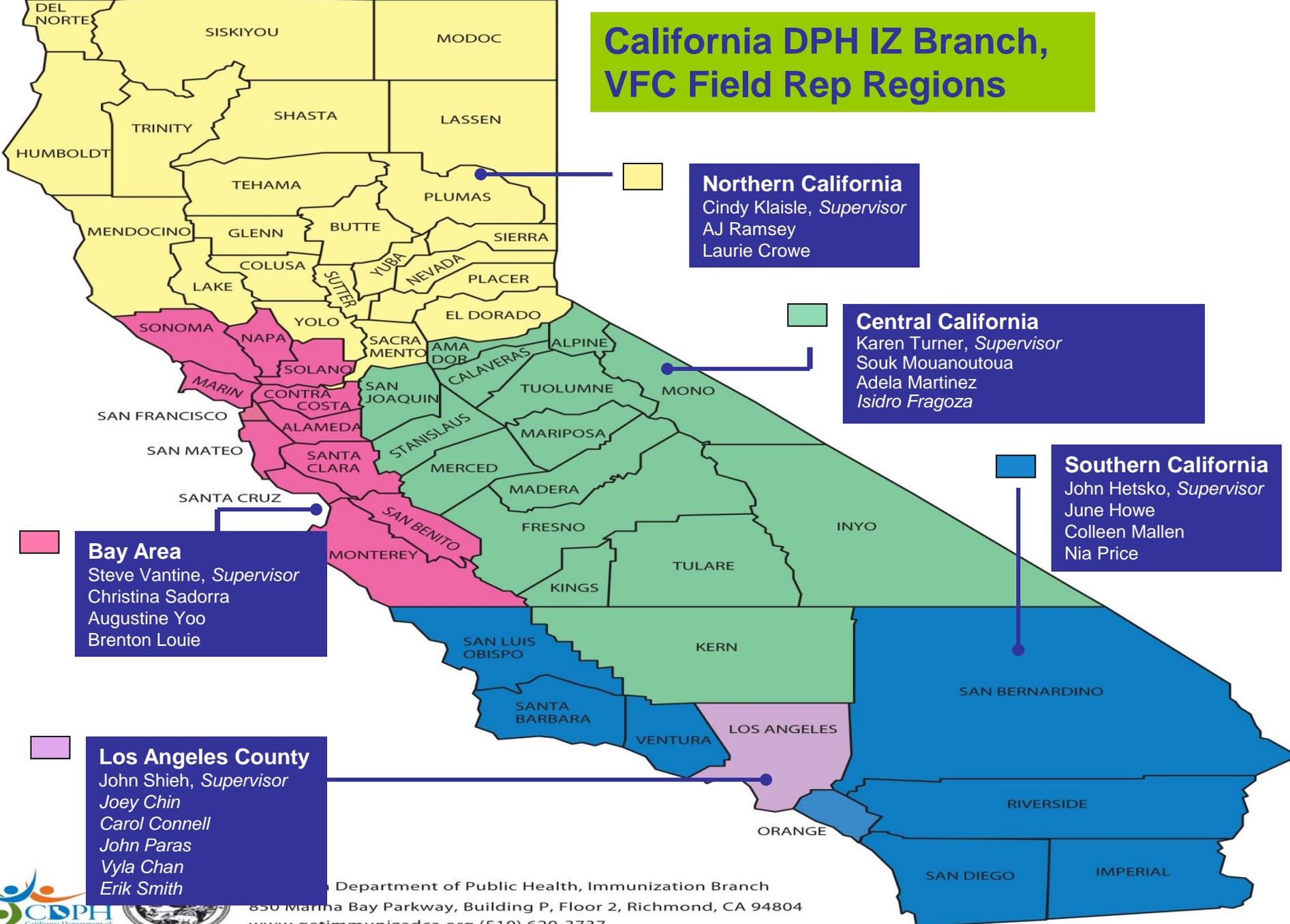
- Step 1: Remove drawers and bins
- Step 2: Put in water bottles
- Step 3: Place thermometers
- Step 4: Attach the digital display
- Step 5: Plug in refrigerator
- Step 6: Set temperature
- Step 7: Record temperatures

Images of a refrigerator with a digital display and a dial thermometer.

VFC Program Team



California DPH IZ Branch, VFC Field Rep Regions



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 AJ Ramsey
 Laurie Crowe

Central California
 Karen Turner, *Supervisor*
 Souk Mouanoutoua
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Southern California
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California Department of Public Health, Immunization Branch
 850 Marina Bay Parkway, Building P, Floor 2, Richmond, CA 94804
www.getimmunizedca.org (510) 620-3737



EZIZ: Contacts for VFC



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A one-stop shop for immunization training and resources.

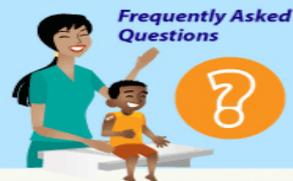
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VFC Memos

Vaccine Order Status

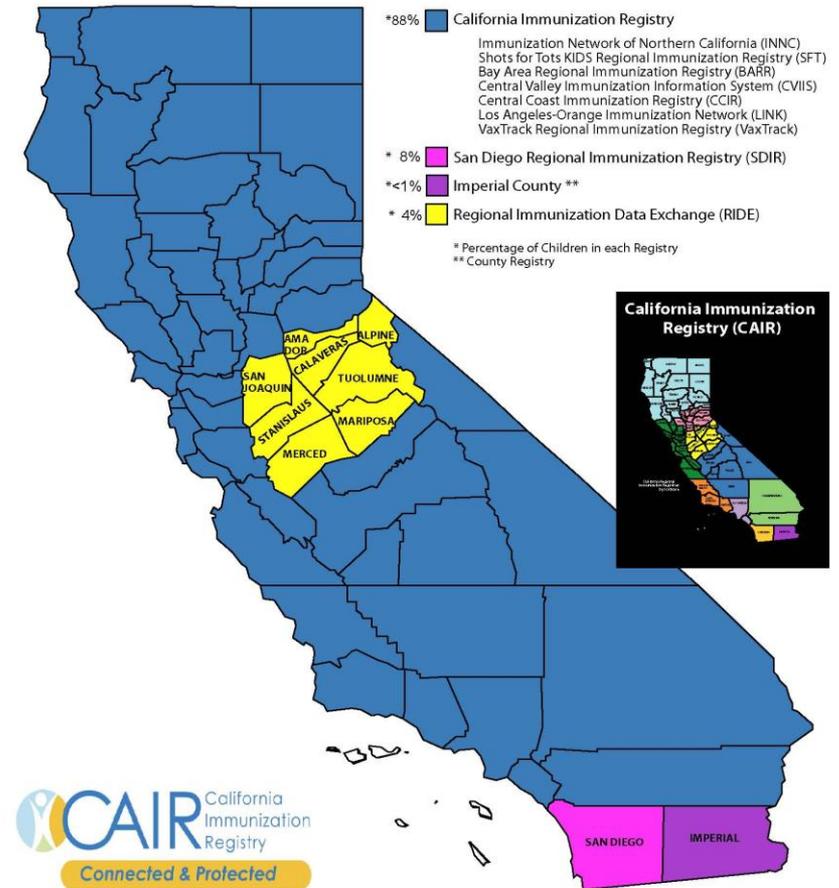
Other News

- Influenza Update 2012/03/14
- Vaccine Tips: CDC's 1st Online National Immunization Conference March 2012
- Recommended ACIP Childhood and Adolescent Immunizations Schedules, 2012; Reminder, Ongoing Pertussis (Tdap) School Requirements for 7th Grade Entry; Vaccine Ordering 2012/03/02
- Vaccine Tips: Preteen Vaccine Week February 2012
- Vaccine Tips: Features of Online Ordering and VFC Office Closure Notice January 2012
- Quadrivalent HPV Vaccine (HPV4) Now Routinely Recommended for Males 2012/01/23
- REMINDER: VFC Recertification due January 31, 2012 2012/01/20
- Influenza Supply Update 2012/01/20
Also see:
[MedImmune's FluMist® 2011-2012 replacement program](#)
- Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis Vaccine 2012/01/05
- Introducing VFC's Online Ordering System and "MyVFCVaccines" 11/14/2011
Also see:
[MyVFCVaccines How-to Guide](#)
[Introducing MyVFCVaccines Card](#)
[Vaccine Inventory Form](#)

California Immunization Registry (CAIR)

The California Immunization Registry System (CAIR)

- Consortium of 9 regional registries – no current data linkage
- 7 of 9 use same 'CAIR' software (87% of population)



California Department of Public Health, Immunization Branch
850 Marina Bay Parkway, Building P, 2nd Floor, Richmond, CA 94804
www.ca-siis.org (510) 620-3737

June 2009

CAIR – Local User Support

- Historically, user support activities, (also help desk) were funded regionally.
- 2011: ‘VFC’ model – 10 state staff work and are supervised regionally by existing senior IZ field reps.

<i>CA VFC Region</i>	<i>Senior IZ Field Reps</i>	<i>Local User Support Staff</i>
Nor Cal	Cindy Klaisle	Jennifer Toten
Bay Area	Steve Vantine	Veronica Plaza
		Karina Alvarez
Central Valley	Karen Turner	Yunuen Garcia
LA	Laurel Fowler	Mollie Davis
		Stella Kim
		Iris Gonzalez
So Cal	John Hetsko	Lindsay Obello
		Heather Hendry
		Christa Atkins

www.cairweb.org

- For contacts and other information about CAIR

Questions?



National Immunization Survey Teen, 13-17 Years, California – 2009 and 2010

Vaccine	Rate 2009	Rate 2010
1 Tdap	53.1% (46.7-59.5)	71.2% (65.1-76.5)
1 MCV4	58.4% (52.0-64.6)	66.7% (60.5-72.3)
1 HPV	49.2% (39.9-58.6)	56.1% (46.9-64.9)
3 HPV	21.8% (15.8-29.4)	32.0% (24.5-40.6)
2 MMR	87.2% (82.6-90.8)	87.9% (82.2-92.0)
3 Hep B	89.6% (85.5-92.7)	89.0% (83.5-92.8)
VAR disease	40.0% (34.1-46.2)	40.1% (33.9-46.6)
1 VAR*	88.0% (81.6-92.4)	90.8% (84.1-94.8)
2 VAR*	56.9% (48.2-65.2)	57.3% (48.7-65.4)
Disease or 2 VAR	74.1% (68.1-79.3)	74.4% (68.3-79.6)
Influenza**	-	54.0% (47.9-60.1)

*If no disease

**6 mos –17 years
Interim results
thru Feb 2011
(2010-2011)

<http://www.cdc.gov/vaccines/stats-surv/default.htm>

National Immunization Survey Teen, Recommended Adolescent Immunization by Age (13-17 Years) -- U.S.-- 2010

	13 years	14 years	15 years	16 years	17 years
Tdap	73.7% (71.2-76.2)	77.2% (74.8-79.3)	72.0% (69.5-74.3)	65.4% (62.6-68.1)	54.6% (51.7-57.4)
MCV4	63.8% (61.1-66.5)	66.6% (64.0-69.1)	64.0% (61.4-66.5)	61.8% (58.9-64.5)	57.1% (54.2-60.0)
1 HPV*	38.9% (34.9-43.1)	48.5% (44.5-52.6)	51.1% (47.0-55.3)	51.7% (47.8-55.7)	53.1% (49.1-57.1)
3 HPV*	23.2% (20.1-26.6)	30.5% (26.9-34.3)	31.9% (28.3-35.6)	36.9% (33.2-40.8)	37.5% (33.7-41.5)
Completed HPV series*§	64.1% (55.9-71.5)	68.2% (61.7-74.0)	65.6% (59.4-71.3)	74.3% (69.4-78.7)	74.6% (68.8-79.6)

*Females only

§For those who had at least 24 weeks between first dose and interview

Higher Seroprevalence of Past Hepatitis B Infection in Adults with Diabetes

- **NHANES 1999-2010**
 - 60% higher seroprevalence of HepBcAg in adults with diabetes compared to those without diabetes
 - 18-59 years: Prevalence ratio 1.7 (95% CI: 1.3-2.2)
 - 60 years +: Prevalence ratio of 1.3 (95% CI: 1.0-1.6)

Acute Hepatitis B Infection

- **Emerging Infection Program Study: Odds of acute hepatitis B infection among adults with diabetes who did not have other hepatitis B risk behaviors compared to those without diabetes**
 - **Persons 23 through 59 years:**
 - 2.1 (95% CI:1.6-2.8) odds of developing acute hepatitis B as those without diabetes*
 - **Persons 60 years and older:**
 - 1.5 (95% CI:0.9-2.5) odds of developing hepatitis B as those without diabetes*

*controlling for age, race/ethnicity, gender

Cost-effectiveness

- **The estimated cost per QALY saved was \$75,100 by vaccinating those 20 through 59 years.**
- **If 10% of unvaccinated 20 through 59 year old U.S. adults with diabetes (~528,000 persons) were vaccinated with hepatitis B vaccine series now, this would be expected to prevent:**
 - 4271 HBV infections
 - 467 hospitalizations
 - 256 chronic cases
 - 33 cases of hepatocellular carcinoma
 - 13 liver transplants
 - 130 deaths

Cost-Effectiveness of Vaccinating Adults with Diabetes

Age at Vaccination (Years)	Number Vaccinated with 10% Take-up	Cost per QALY Saved
20–59	528,047	\$75,094
60+	774,394	\$2,760,753
All (20+)	1,302,441	\$196,557

Data provided by RTI International, September 2011
Presented at October 2011 ACIP meeting, Atlanta, GA

Morbidity and Mortality

- **Chronic HBV infection is associated with high morbidity and mortality**
 - Cirrhosis and liver cancer in $\geq 15\%$ of affected adults

National Immunization Survey Teen, 13-17 Years, California and U.S.--2010

Vaccine	CA Immunization Rate	U.S. Immunization Rate
1 Tdap	71.2% (65.1-76.5)	68.7% (67.5-69.8)
1 MCV4	66.7% (60.5-72.3)	62.7% (61.5-63.9)
1 HPV	56.1% (46.9-64.9)	48.7% (46.9-50.5)
3 HPV	32.0% (24.5-40.6)	32.0% (30.3-33.6)
2 MMR	87.9% (82.2-92.0)	90.5% (89.6-91.3)
3 Hep B	89.0% (83.5-92.8)	91.6% (90.8-92.4)
VAR disease	40.1% (33.9-46.6)	44.7% (43.5-46.0)
1 VAR*	90.8% (84.1-94.8)	90.5% (89.4-91.5)
2 VAR*	57.3% (48.7-65.4)	58.1% (56.4-59.8)
Disease or 2 VAR	74.4% (68.3-79.6)	76.8% (75.7-77.9)
Influenza**	54.0% (47.9-60.1)	49.0% (47.7-50.3)

*If no disease

**6 mos –17 years
Interim results
thru Feb 2011



Preteen Vaccine Week

February 12-18, 2012



CDPH Activities for Preteen Vaccine Week

- **2012 Preteen Kit** is now available on CDPH website
- **PVW Monthly Support Calls**
- **Partners:** CIC, CDE, California Adolescent Health Collaborative, the California School Health Centers Association, CA PTA, and the California School Nurses Organization
- Contact Rebeca Boyte if questions:
Rebeca.boyte@cdph.ca.gov



CAIR – Current Statistics*

Measure	0-5 yrs	6-18 yrs	19+ yrs	All Ages
CA Population	3,272,863	7,292,336	27,938,390	38,503,589
Patients In	2,490,510	5,238,232	4,458,918	12,187,660
% of Pop. In	76.1%	71.8%	16.0%	31.7%
Patients w/ ≥ 2 doses	1,748,637	3,824,220	2,039,398	7,612,255
% of Pop. w/ ≥ 2 doses	53.4%	52.4%	7.3%	19.8%
Vaccine Doses	30,724,225	76,065,623	21,344,491	128,134,339

* As of Dec 31, 2011.

CAIR & HITECH 'Meaningful Use'

- Federal program to incentivize the adoption and 'meaningful use' of electronic health records (EHR) systems
- 3 stages, each with more rigorous qualifying expectations
- MU Standards for content exchange (HL7) and

m Submission to Immunization Registry

HITECH	Starts	Required for payment?	Qualifying activity*
Stage 1	2011-13	No	1 time test
Stage 2	2014-15	Yes	Batch, ongoing
Stage 3	2016	Yes	Real-time, ongoing

*CMS allows exemption if registry does not have capacity to receive

CAIR & HITECH ‘Meaningful Use’

- CAIR Status - Stage 1 MU (testing)

Region	Official Readiness * (HL7, CVX)	Level of Qualifying Activity (testing)
7 ‘CAIR SW’ regions	No	None
CAIR San Diego	Yes	Low
CAIR San Joaquin	Yes	Low
Imperial County	No	None

*See <http://www.cdph.ca.gov/data/informatics/Pages/MeaningfulUseRequirements-Immunization.aspx>

CAIR 'HL7Jump' Project

- ***HL7Jump* is an open source HL7 translator that we have configured to convert HL7-formatted immunization record files exported from EHRs into the standard CAIR SW 'flat file' format that can be imported into CAIR**
- **Interim MU solution**
- **'Unofficial' pilot project, with 23 sites now live, many others pending**
- **Accepting participants by invitation only**
- **Hoping to 'ramp up' and support MU in future if resources become available**

CAIR 2.0 Project

- **Issues**

- 9 regional registries - no data linkage
- 7 use 'legacy' software that is not web standard, state IT-supported, and does not support federal HITECH MU.

- **Project Goal**

- Consolidate 7 databases (87% of CA population) into statewide immunization registry
- Adopt new software solution that is fully-functional, web-standard, state-IT compliant to support meaningful use
- Utilize interoperability (HL7) to connect to independent registries if they decide not to join larger group

CAIR 2.0 Project -Timeline

Major Milestones	Date Completed
Start Date	July 2012
Contractor Solicitation and Acquisition Approval	June 2013
SPR Approval	October 2013
Requirements Specifications	February 2014
Design Documents	May 2014
System Build	November 2014
System Testing	January 2015
User Acceptance Testing	April 2015
User Training	June 2015
Data Migration/System Go Live	June 2015
End Date	June 2015

VFC Provider Enrollment

- **Any qualifying practitioner authorized to administer pediatric vaccines under CA state law and interested in providing routine childhood vaccines through the program is eligible to enroll with the CA VFC Program.**
- **The administrative requirements to enroll include:**
 - Agreement to follow all federal participation requirements outlined in the Provider Enrollment Agreement and Capacity to Store Vaccines
 - Providing estimates of patients to be immunized with VFC-supplied vaccines (Provider Profile form), listings of all providers with prescription privileges in the practice, and vaccine delivery information
 - Having a vaccine storage unit and thermometers meeting program requirements
 - Successfully completing an initial site visit

Participation Requirements

- Requirements for participation in the VFC Program are set by CDC and clearly outlined in the Program's "Participation Agreement"
- Initially and on an annual basis, providers must agree with set requirements in order to renew participation in the program.



State of California—Health and Human Services Agency		California Department of Public Health	
VACCINES FOR CHILDREN (VFC) PROGRAM PROVIDER ENROLLMENT FORM		PIN (6 digit)	
NAME OF PHYSICIAN'S OFFICE, PRACTICE, CLINIC, ETC.		COUNTY	
ADDRESS (Number and Street)		CITY	ZIP CODE
CONTACT PERSON	NATIONAL PROVIDER IDENTIFIER (NPI)	TELEPHONE ()	FAX ()
EMPLOYER IDENTIFICATION NUMBER	MEDICAL LICENSE NUMBER	EMAIL ADDRESS	

To participate in the Vaccines for Children (VFC) Program and receive federally procured vaccine provided to my facility at no cost, I agree to the following conditions, on behalf of myself and all the practitioners, nurses and others associated with this medical office, group practice, managed care organization, community/migrant/rural clinic, health department, or other health delivery facility of which I am the physician-in-chief or equivalent:

- I will screen patients and administer VFC Program-purchased vaccine only to a child who is 18 years of age or younger who qualifies under one or more of the following categories:
 - Is an American Indian or Alaskan Native;
 - Is eligible for California's Child Health and Disability Prevention (CHDP) Program or Medi-Cal Program; or
 - Has no health insurance.

Note: Children with private health insurance and Health Maintenance Organization (HMO) coverage are not eligible for the VFC Program.
- I will maintain a record of each VFC-enrolled child's records will be bound by the privacy protection of the Health Insurance Portability and Accountability Act (HIPAA).
- If requested, I will make such records available to the State of California.
- I will permit visits to my facility by authorized representatives for vaccine storage and record-keeping.
- I will administer VFC vaccines only to children in eligible (ACIP) in VFC resolutions.
- I will administer all age-appropriate immunizations to and contraindications that are established by the Advisory Committee on Immunization Practices (ACIP):
 - In my medical judgment, and in accordance with the law in my state.
 - The particular requirement contradicts the law in my state.
- I will distribute written vaccine information (e.g. Vacc Childhood Vaccine Injury Act).
- I will not impose a charge for the cost of the vaccine.
- I will not impose a charge for the administration of the vaccine for the State of California is \$17.55 per dose administered.
- I will not deny administration of a federally procured vaccine because of non-payment of the administration fee.
- I will comply with the State's requirements for ordering and handling of vaccines.
- I will be financially responsible for the replacement or disposal of vaccines because of negligence.
- I agree to store and handle VFC-supplied vaccines in accordance with the manufacturer's instructions. I may be required to purchase a new refrigerator or freezer to maintain appropriate temperature.
- I will use the VFC provided Fahrenheit (F°) Temperature Log (IMM-682) record each month for a period of 12 months.
- I understand the State may terminate this agreement if I do not comply with the VFC Program's procedures for return of unused vaccine.

Note: I understand that if this agreement is terminated, I will be responsible for the return of unused vaccine to the State of California.

VACCINES FOR CHILDREN (VFC) PROGRAM CERTIFICATION OF CAPACITY TO STORE VACCINE

State of California—Health and Human Services Agency		PROVIDER
NAME OF PHYSICIAN'S OFFICE, PRACTICE, CLINIC, ETC.		CONTACT PERSON
ADDRESS (Number and Street—No P.O. Boxes)		CITY
TELEPHONE:	FAX:	EMAIL:

I, on behalf of myself and any and all practitioners associated with this medical office, health department, community/migrant/rural clinic, hospital, health department, or other health delivery facility of which I am the physician-in-chief, medical director or equivalent, agree to comply with each of VFC's requirements:

- Comply with Storage and Handling Requirements**
All enrolled VFC providers must comply with the July 2009 vaccine storage equipment requirements (http://www.cdph.ca.gov/Programs/CID/DCDC/Pages/ImzVaccineStorageHandling.html). New providers must have separate refrigerator only and freezer only units. Do not allow for vaccine storage, even for daily use.
- Designate a Vaccine Coordinator**
Designate one fully trained staff member to be the primary vaccine coordinator and at least one backup.
- Set up refrigerator and freezer properly**
 - Keep vaccines 2-3 inches away from walls, floor, and other boxes.
 - Group vaccines by type, and clearly label the designated space for each vaccine.
 - Place thermometers in the center of both the refrigerator and freezer. Post a temperature log in the center of both the refrigerator and freezer. Post a "Do Not Unplug" warning signs on electrical outlets, and circuit breaker.
 - Plug in only one unit per outlet.
 - Do not store: food in the refrigerator or freezer, vaccine in the doors or drawers.
 - If your refrigerator units have deli-crisper and vegetable bin drawers, remove them. Do not store water bottles in the refrigerator and ice packs in the freezer.
- Use certified thermometers**
Thermometers must be certified in accordance with National Institute of Standards and Technology (NIST) procedures and replaced every 6 months.
- Store vaccines at recommended temperatures**
 - Freeze MMR, MMRV, and Varicella at 5° F or below.

VFC Eligibility: Special Populations

- **American Indian/Alaska Natives**
 - are eligible to participate in the VFC program regardless of insurance coverage.
- **Insured children with Medi-Cal as a secondary insurance are covered by VFC**
 - Private vaccines may be administered and billed to the primary insurance or VFC vaccines may be administered and bill Medi-Cal for an administration fee
- **Incarcerated juveniles under 19 years of age**
 - an individual who loses access to health benefits under his/her insurance while incarcerated is uninsured for purposes of the VFC program.
- **Minors seeking vaccination under confidential services**
 - (as allowed by state law) at an STD/Family Planning Clinic

VFC Program Background

Administration Fees

- While VFC vaccines are provided at no-cost to parents, providers may charge a vaccine administration fee to non-Medicaid VFC eligible children
- Administration fee cannot exceed maximum regional charges set by CMS (\$17.55 per dose in CA)
- Vaccine administration cannot be denied to an established patient due to inability to pay the administration fee.
 - The only fee that must be waived is the administration fee. Other visit or office fees may be charged as applicable.
- Administration fees for Medi-Cal patients must be billed to Medi-Cal and NOT to the patient (fee is currently at 9.00 per vaccine)

Life after enrollment...

- **Upon enrollment approval, each site receives a unique Provider Identification Number (PIN)**
- **Providers may begin ordering VFC vaccines**
 - Orders are submitted to the VFC Customer Service Center (on-line & FAX) for review, approval, and submission for fulfillment by the VFC Program national distributor.
 - Vaccine orders arrive within 1-2 weeks.
- **Quality Assurance Reviews (QARs) are conducted by VFC Representatives every other year to monitor and ensure program compliance with federal requirements**
- **Recertification: Renewal of program participation is required annually**
- **Provider education and trainings, and general program assistance-available through VFC Reps, Customer Service Center and EZIZ**
- **Registry Promotion**

VFC Program Background

- The creation of the VFC Program is a direct result of the 1989 – 1991 US measles epidemic which resulted in tens of thousands of cases of measles and hundreds of deaths.
 - Over 50% of these children with measles had recently seen a healthcare provider but were not immunized
- Two years after this epidemic congress passed the Omnibus Budget Reconciliation Act (OBRA) on August 10, 1993, creating the Vaccines for Children (VFC) Program, as an “entitlement” (a right granted by law) for eligible children 0-18 yrs of age.
- VFC Program became operational in 1994



VFC Program Background

- VFC is a federal program, providing publicly-purchased vaccine at no cost to enrolled providers for immunization of eligible patients without any out of pocket vaccine costs.
- Eligible patients include children 0-18 yrs of age meeting at least one of the following criteria:
 - Medi-Cal/CHDP eligible
 - Uninsured
 - American Indian, and Alaska Native
 - Underinsured in FQHCs and RHCs ONLY
- The program eliminates vaccine cost as a barrier for immunizations and provider's up-front-costs, improves access to immunizations, and keeps children in their medical home-preventing fragmentation of immunization services, and improving the overall quality of care.

Insurance:

- Doesn't cover any vaccines or cover certain vaccines only or covers vaccines, but has a spending cap; after this cap is reached, the patient is VFC eligible

VFC Vaccines

- The program covers vaccines recommended by the Advisory Committee on Immunization Practices (ACIP), and voted into the program through “VFC Resolutions”
 - Vaccines are purchased by CDC from manufacturers at discounted prices, through annually negotiated federal contract
 - nearly 43% of all vaccine purchases in the US are purchased federally
 - significant cost savings gained due to bulk purchases
- | | | |
|---------|--------|---------|
| ActHIB® | \$9.20 | \$25.47 |
|---------|--------|---------|
- CDC also negotiates a federal vaccine distribution contract to centrally store national vaccine supplies and distribute doses to participating providers
 - 2 national vaccine distribution warehouses-McKesson Sacramento and McKesson Memphis

Background of HPV Vaccine Licensure

- **Quadrivalent HPV vaccine is directed against HPV types 6, 11, 16, and 18**
 - Licensed for females for prevention of:
 - Cervical cancer and precancers, and genital warts (2006)
 - Vulvar and vaginal cancers and precancers (2008)
 - Licensed for males for prevention of:
 - Genital warts (2009)
 - Licensed for males and females for prevention of anal cancers and precancers (2010)
- **Bivalent HPV vaccine is directed against the oncogenic HPV types 16 and 18**
 - Licensed for females for prevention of cervical cancers and precancers (2009)