

Vaccines for Adults Program Webinar: Best Practices to Increase Adult Immunization Rates

July 31, 2019

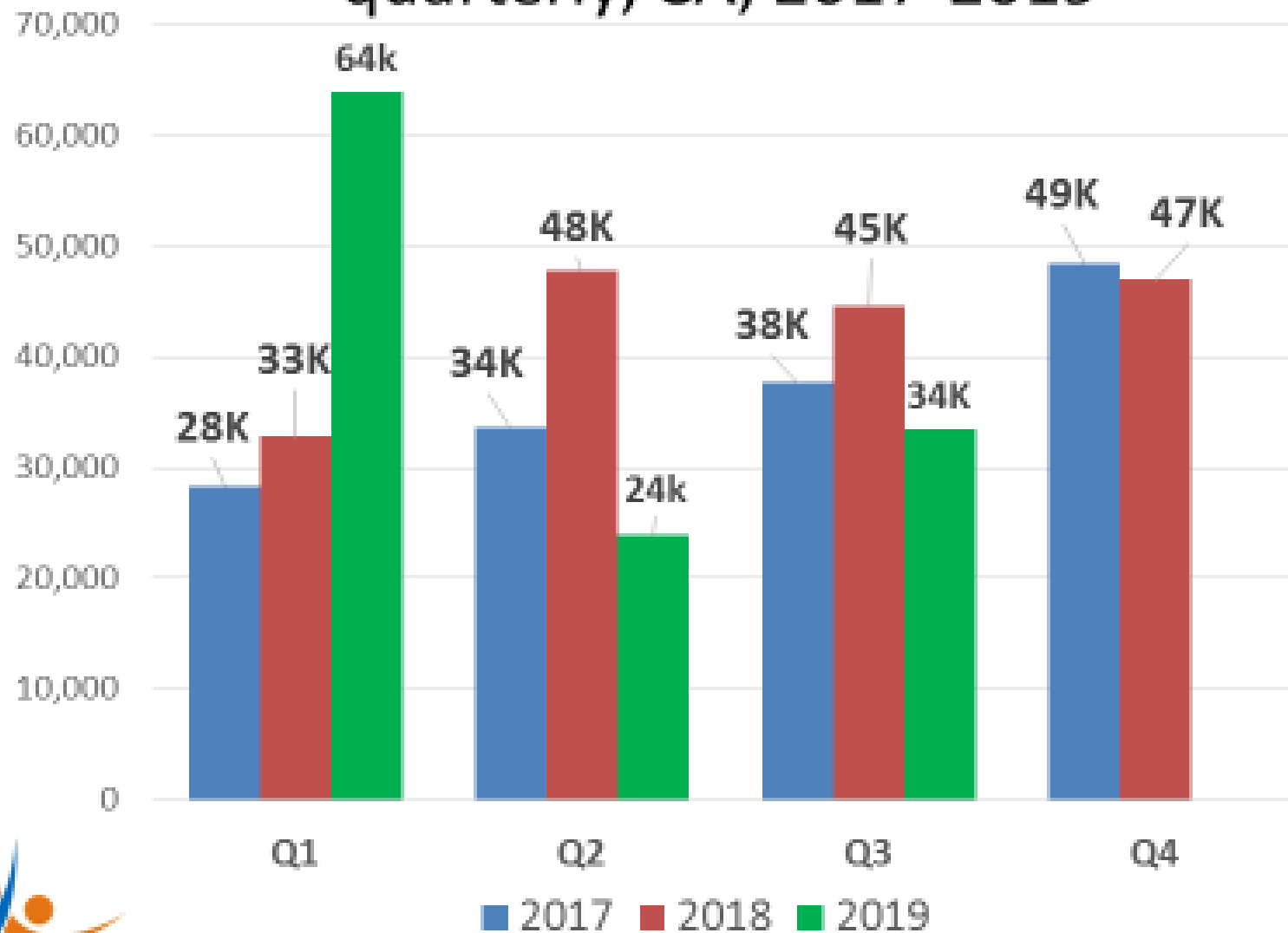
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American College of Obstetricians and Gynecologists (ACOG)

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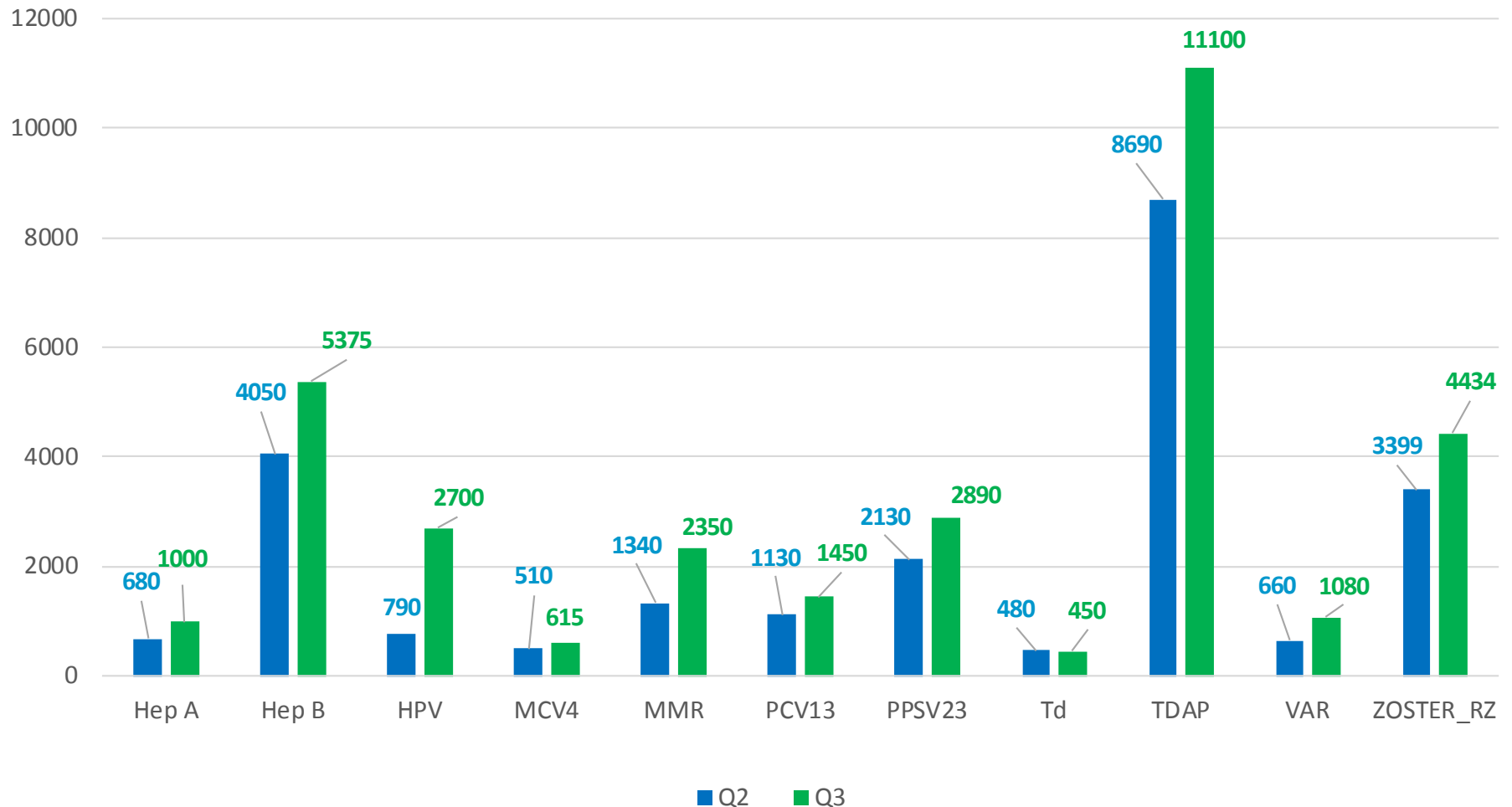
Agenda

- Vaccine ordering and administration data
- Program reminders and updates
- **Sarah Wright**, American College of Obstetricians and Gynecologists (ACOG):
Partnerships with OB/GYNs to develop effective strategies for integrating immunizations into routine practice
- **Dr. Bart Smoot**, Family Health Centers of San Diego:
Improving adult vaccine assessment through integration of EHR-based decision aids

VFA vaccines doses ordered, reported quarterly, CA, 2017-2019



VFA Doses Ordered by Vaccine Type, Q2-Q3 2019



Reminder

- Currently, HPV is recommended through 26 years of age for females and through 21 years of age for males.*
- Follow published ACIP recommendations for HPV and PCV13.

**Men who have sex with men; transgender persons; and men with certain immunocompromising conditions (including HIV infection) may receive vaccine through 26 years of age.*

Program Reminders and Updates

- Next ordering cycle: Late Sept/early Oct 2019
- Next webinar: November 2019
- VFA Poster mailed 7/19
- VFA Program Participation Requirements At-a-Glance now available online
- Missed a VFA communication? Visit the VFA webpage for archived communications and more

NOTE: ALL VFA PROVIDERS WILL BE REQUIRED TO HAVE AN ACCOUNT WITH CA IMMUNIZATION REGISTRY OR LOCAL IMMUNIZATION REGISTRY BEGINNING IN 2020

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Sarah Wright, MA

American College of Obstetricians and Gynecologists (ACOG):

Partnerships with OB/GYNs to develop effective strategies for integrating immunizations into routine practice

Increasing Adult Immunization Rates through Obstetrician-Gynecologist Partnerships

ACOG Adult Immunization Cooperative Agreement

Sarah Wright, MA, Senior Program Manager

American College of Obstetricians and Gynecologists (ACOG)

Immunization, Infectious Disease, and Public Health Preparedness Department



The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

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Acknowledgements

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Project Background

- 4-year cooperative agreement funded by CDC
 - 3-year demonstration phase working directly with ob-gyns
 - 1-year dissemination phase to share findings from the demo phase
- Aimed at increasing rates of 5 adult immunizations in pregnant and non-pregnant populations
- Worked closely with 19 diverse ob-gyn practices in two states (Massachusetts and California)
 - On-going collaboration with state health departments for resources and technical support
 - Focused on implementation & adaptation of the National Vaccine Advisory Committee's (NVAC) Standards for Adult Immunization Practice



Targeted Strategies

- Standing orders
- Strong recommendations
- Consistent documentation
- IIS enrollment
- Immunization referral
- Prompting
- Engaging practice staff
- Patient & health care provider education and use of resources



Project Findings: Immunization Rates



Increasing Adult Immunization Rates Project Cohort: Comparisons of Immunization Rates by Immunization and Project Year

	Immunization Rates at Baseline	Immunization Rates at Year 3	Immunization Rates Percent Change Over Course of Project
Tdap	24%	63%	163%
Influenza	21%	35%	66%
Hepatitis B	55%	72%	31%
Herpes Zoster	10%	33%	233%
Pneumococcal	30%	33%	11%

Project Findings: Missed Opportunities



Increasing Adult Immunization Rates Project Cohort: Comparisons of Missed Opportunity Rates by Immunization and Project Year			
	Missed Opportunities at Baseline	Missed Opportunities at Year 3	Missed Opportunities Percent Change Over Course of Project
Tdap	76%	37%	-51%
Influenza	79%	65%	-17%
Hepatitis B	45%	28%	-38%
Herpes Zoster	90%	67%	-26%
Pneumococcal	70%	67%	-4%

Missed opportunity = eligible for a vaccine but no record of contraindication, receipt, or refusal of the vaccine

Identifying Effective Strategies

- Through careful tracking of the project data and activities pilot-tested, ACOG identified the immunization improvement strategies that were:
 - Successfully implemented by the Champions
 - Capable of driving change at the *practice* level
 - Easy to implement in all practice settings
 - Sustainable over time
 - Applicable to the wider ACOG membership



Strategies for Effectively Integrating Immunizations into Routine Obstetric-Gynecologic Care

1. Administer routinely discussed and recommended vaccines, which at a minimum include influenza, Tdap, and HPV.
2. Create a culture of immunization by educating and involving all staff in immunization processes. Delegate the responsibilities of maintaining and championing an immunization program to a team of staff, as appropriate for your practice structure.
3. Develop a standard process for assessing, recommending, administering, and documenting vaccination status of patients.
4. Utilize existing systems and resources to conduct periodic assessments of immunization rates among patients to determine if and where progress is needed.

Administer routinely discussed and recommended vaccines, which at a minimum include influenza, Tdap, and HPV.

- **Talk to each patient directly.** Make a strong recommendation, which includes:
 - **The recommendation:** “As your physician, I recommend you get the flu vaccine.”
 - **A timeframe:** “I want you to get the vaccine today before you leave.”
 - **A benefit to the patient:** “The vaccine is important for your health.”
- **Train staff** on how to deliver strong immunization recommendations
- **Document declinations** and reintroduce discussion at subsequent visits
- **Order vaccine early**—pre-booking flu vaccine helps secure lower pricing
- **Develop a referral system**—if feasible, establish a relationship with an existing pharmacy, health care provider, or clinic for referrals
- **Expand immunization** offerings methodically



Create a culture of immunization by educating and involving all staff in immunization processes. Delegate the responsibilities of maintaining and championing an immunization program to a team of staff, as appropriate for your practice structure.

- **Educate clinicians and staff on importance of immunizations** for patients & themselves (at regular intervals)
- Educate clinicians and staff on **role non-physician staff can play**
- **Develop scripts** for staff to follow when promoting immunizations
- **Utilize front desk staff** to promote immunizations as appropriate
- Display **patient education materials**
- **Delegate immunization program** duties to an Immunization Champion team or individual



Develop a standard process for assessing, recommending, administering, and documenting vaccination status of patients.

- Consider implementing immunization **standing orders** for vaccines carried on-site
- When standing orders are not feasible, develop a **standard immunization process**
- Consider shifting **administration of immunizations to early in the patient visit**
- Make use of **electronic prompts within the EHR**
- **Build immunization reminder language** into intake, check-in, and check-out forms
- When feasible, enroll in your state's **immunization information system (IIS)**

Utilize existing systems and resources to conduct periodic assessments of immunization rates among patients to determine if and where progress is needed.

- Periodic assessments can highlight if and where improvements are needed
- Examples include:
 - Chart reviews
 - Comparisons of immunization billing codes to number of patients seen over a certain timeframe
 - Comparisons of vaccine purchasing and doses administered to the number of vaccine eligible patients over a certain timeframe
- When assessing immunization rates, consider starting with just one population group or immunization over a specific timeframe
- Develop a plan for how you will use the findings of your immunization rates assessment



Adult Immunization Project Resources

- Increasing Adult Immunization Rates through Obstetrician-Gynecologist Partnerships [project report](#)
- Strategies for Integrating Immunizations into Routine Obstetric-Gynecologic Practice [tip sheet](#)
- Developing an Immunization Referral System [tip sheet](#)
- Seasonal Influenza Vaccination Programs: Tips for Optimizing Practice Management [tip sheet](#)
- Optimizing Immunization Programs in Obstetric-Gynecologic Practices [tool kit](#)

Strategies for Effectively Integrating Immunizations Into Routine Obstetric-Gynecologic Care

The American College of Obstetricians and Gynecologists
ACOG FOUNDATION

Overview

The strategies outlined in this resource are based on findings from an American College of Obstetricians and Gynecologists adult immunization project funded by the Centers for Disease Control and Prevention. During this project, recommendations from the National Vaccine Advisory Committee Standards for Adult Immunization Practice were implemented among a diverse population of obstetric-gynecologic providers. Through this process, four overarching strategies were shown to improve immunization processes and ultimately increase immunization rates among obstetrician-gynecologists (ob-gyn) that put them into practice.

Immunizing pregnant and nonpregnant women against vaccine-preventable diseases is an essential component of women's health care. These suggested strategies are intended to help ob-gyns optimize their immunization programs and integrate immunizations into their routine patient care.

1. Administer routinely discussed and recommended vaccines, which at a minimum include influenza; tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap); and human papillomavirus (HPV).

Activities and considerations to successfully implement this strategy include the following:

- ▶ Train staff on how to deliver strong immunization recommendations to every patient, with statements that include, at a minimum, the recommendation, a time frame for getting the vaccine, and a benefit to the patient.
- ▶ For practices that currently offer immunizations only to obstetric patients, obstetricians requiring a routine immunization, such as influenza, to gynecologic patients.
- ▶ Similarly, when adding immunizations to a practice or unit that previously did not administer vaccines, start with one vaccine and pilot-test the process for a specified time frame.
- ▶ You may wish to research vaccine manufacturers for special pricing offers to ensure your practice obtains the best price per vaccine. Consult your legal counsel regarding discounts, as certain restrictions may apply.

2. Create a culture of immunization by educating and involving all staff in immunization processes. Delegate the responsibilities of maintaining and championing an immunization program to a team of staff, as appropriate for your practice structure.

Activities and considerations to successfully implement this strategy include the following:

- ▶ Regularly offer education to clinicians and staff on the importance of immunizations through routine meetings, circulation of education materials, and other means.

Increasing Adult Immunization Rates Through Obstetrician-Gynecologist Partnerships

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IMMUNIZATION FOR WOMEN
Immunization Information for ACOG and Its Members

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Optimizing Immunization Programs in Obstetric-Gynecologic Practices

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Seasonal Influenza Vaccination Programs

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Tips for Optimizing Practice Management

An obstetrician-gynecologist (ob-gyn) plays a crucial role in providing important information on influenza (flu) immunization for women and adolescent girls and in a pregnant woman's decision to get the seasonal flu vaccine, protecting her health and the health of her fetus. Offering the seasonal flu vaccine in the practice setting is the best way to ensure patients receive their immunization.

This guide provides tips to help optimize the flu immunization program in your obstetric-gynecologic practice. Please share this resource with the immunization coordinator, nurse, medical assistant, office manager, or other staff responsible for immunization management in your practice.

Ordering Vaccine

New flu vaccine inventory must be ordered every year because vaccine composition is reviewed annually and updated to match circulating flu viruses. There are steps practices can take when ordering to better manage the costs of vaccine purchasing.

Purchasing Options

Routes to take when purchasing a vaccine include the following:

- ▶ Direct from manufacturers (search online for the company name and "influenza vaccine ordering")
- ▶ From a distributor, particularly the distributor from whom you buy your other medical supplies
- ▶ Through purchasing cooperatives or group purchasing organizations
- ▶ Through your parent institution such as your university or your health plan
- ▶ Through special programs conducted by your state or local health department

Getting the Best Rate

One method for securing a discounted rate is to explore group purchasing organizations or develop partnerships with nearby clinics to collectively make a larger order.

ADDITIONALLY, taking the time to research and compare prices can ensure you secure the best price per vaccine. For example, certain manufacturers or vendors accept returns of unused vaccine doses and will refund a percentage of the cost for returned doses. Other vendors may not accept returns at all. Factor in this information when determining the quantity to order and assessing financial implications.

You may wish to research vaccine manufacturers for special pricing offers to ensure your practice obtains the best price per vaccine. These might include the following:

- ▶ **Prebook discounts** allow you to purchase a vaccine at a lower price if you reserve doses well in advance of the upcoming flu season.
- ▶ **Prompt pay discounts** are provided to practices that pay their invoices promptly.
- ▶ **Website order discounts** are provided to practices that order vaccines online.
- ▶ **Credit cards** create a payment record that may allow you to negotiate a better rate. Note that you will need to pay the balance on your credit card by the due date. Consult your legal counsel regarding discounts, as certain restrictions may apply.

Developing an Immunization Referral System

The American College of Obstetricians and Gynecologists (ACOG) recommends that obstetrician-gynecologists (ob-gyns) assess patients' immunization status and recommend and offer needed vaccines during routine office visits. There are many resources available to help ob-gyns maintain a vaccine inventory in their practice while also maximizing reimbursement and reducing costs. For those practices that are unable to stock and administer vaccinations onsite, ACOG recommends that ob-gyns develop a system for referring patients elsewhere for vaccination.

An immunization referral system should include the following:

- A referral or prescription for a specific vaccine needed within a specific time frame
- Identified locations where the vaccine is offered, and preferably those that accept the patient's insurance
- A plan for following up and documenting that the patient received the vaccine

To help ob-gyns develop such a system, ACOG has outlined several tips and strategies. Please keep in mind that there is no one-size-fits-all immunization referral system. These tips and strategies are meant to offer useful suggestions as you build the immunization referral system that works best for your practice.

Tips and Strategies for Developing an Immunization Referral System

Determine which vaccines your patient population may need that your practice is not able to stock.

- ▶ In an ob-gyn office, necessary vaccines at a minimum include influenza, tetanus toxoid, diphtheria toxoid, and acellular pertussis (Tdap) and human papillomavirus (HPV).
- ▶ Depending on your patient population, your practice also may need to give referrals for the following vaccines: pneumococcal, hepatitis B, herpes zoster, measles-mumps-rubella (MMR), meningococcal, and more.
- ▶ Use a screening tool to stay informed on specific ages and indications for different vaccines.
- ▶ The Centers for Disease Control and Prevention (CDC) and the Immunization Action Coalition (IAC) offer each screening tool.
- ▶ The American College of Obstetricians and Gynecologists offers resources for determining patients' recommended immunizations at [acog.org](#) and through the ACOG Immunization applet.

Identify locations that offer the vaccines your practice does not stock or that currently may not be in stock.

- ▶ This location can be a partner or neighboring primary care office or clinic, health department, clinic or hospital pharmacy, independent or retail pharmacy, travel clinic, or other community health care provider.

Develop a list of referral locations and keep copies of this list readily accessible to share with patients.

- ▶ The list should include the referral's name, address, phone number, business hours, website link and, when possible, vaccines offered and insurance coverage information
- ▶ **Please note:** (When a referral location may bill the same insurance plan as the ob-gyn, the average rate, or whether or not the vaccine is covered, may vary.)
- ▶ Providing such a list is especially critical for patients who do not already have a primary care provider, preferred pharmacy, or other identified source for acquiring a referred vaccine.

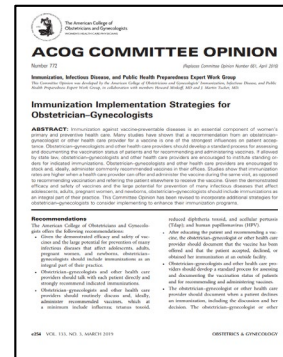
Write down the start vaccine and timing of administration needed when you refer the patient for the vaccine.

- ▶ To formalize the process and convey necessity to the patient, consider writing the referral information on a prescription pad. If possible, use your electronic medical record (EMR) e-prescription feature.
- ▶ Some EMRs allow you to e-prescribe a specific vaccine to a specific pharmacy for your patient.
- ▶ Using e-prescription
 - allows the patient to go to her preferred location.
 - provides documentation and information to the patient.
 - gives the pharmacy a heads-up that the patient is coming.
- ▶ Depending on the functionality of your EMR, using the e-prescription feature also may generate a confirmation when the vaccine has been given and, therefore, provides documentation of vaccination in your records.

Other ACOG Immunization Resources

[ImmunizationforWomen.org](https://www.immunizationforwomen.org) and [ACOG.org/immunization](https://www.acog.org/immunization) websites

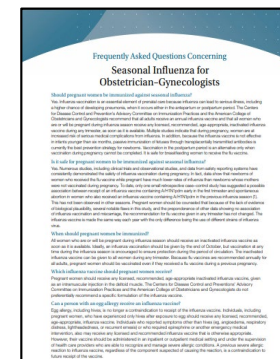
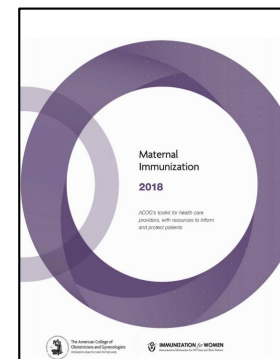
- Clinical guidance
- ACOG app with Immunization applet
- Toolkits & FAQs
- Coding and reimbursement resources
- Practice management resources
- Vaccine safety resources



**2019
Immunization Coding for
Obstetrician-Gynecologists**

Reimbursement Authority: Administration and Billing
(Report an Administration Code and a Vaccine Code)

Vaccine	Code by Vaccine	CPT	Reimbursement
Human Papillomavirus (HPV) vaccine	90562	90562	\$600-\$800
Human Papillomavirus (HPV) vaccine	90563	90563	\$600-\$800
Human Papillomavirus (HPV) vaccine	90564	90564	\$600-\$800
Human Papillomavirus (HPV) vaccine	90565	90565	\$600-\$800
Human Papillomavirus (HPV) vaccine	90566	90566	\$600-\$800
Human Papillomavirus (HPV) vaccine	90567	90567	\$600-\$800
Human Papillomavirus (HPV) vaccine	90568	90568	\$600-\$800
Human Papillomavirus (HPV) vaccine	90569	90569	\$600-\$800
Human Papillomavirus (HPV) vaccine	90570	90570	\$600-\$800
Human Papillomavirus (HPV) vaccine	90571	90571	\$600-\$800
Human Papillomavirus (HPV) vaccine	90572	90572	\$600-\$800
Human Papillomavirus (HPV) vaccine	90573	90573	\$600-\$800
Human Papillomavirus (HPV) vaccine	90574	90574	\$600-\$800
Human Papillomavirus (HPV) vaccine	90575	90575	\$600-\$800
Human Papillomavirus (HPV) vaccine	90576	90576	\$600-\$800
Human Papillomavirus (HPV) vaccine	90577	90577	\$600-\$800
Human Papillomavirus (HPV) vaccine	90578	90578	\$600-\$800
Human Papillomavirus (HPV) vaccine	90579	90579	\$600-\$800
Human Papillomavirus (HPV) vaccine	90580	90580	\$600-\$800
Human Papillomavirus (HPV) vaccine	90581	90581	\$600-\$800
Human Papillomavirus (HPV) vaccine	90582	90582	\$600-\$800
Human Papillomavirus (HPV) vaccine	90583	90583	\$600-\$800
Human Papillomavirus (HPV) vaccine	90584	90584	\$600-\$800
Human Papillomavirus (HPV) vaccine	90585	90585	\$600-\$800
Human Papillomavirus (HPV) vaccine	90586	90586	\$600-\$800
Human Papillomavirus (HPV) vaccine	90587	90587	\$600-\$800
Human Papillomavirus (HPV) vaccine	90588	90588	\$600-\$800
Human Papillomavirus (HPV) vaccine	90589	90589	\$600-\$800
Human Papillomavirus (HPV) vaccine	90590	90590	\$600-\$800
Human Papillomavirus (HPV) vaccine	90591	90591	\$600-\$800
Human Papillomavirus (HPV) vaccine	90592	90592	\$600-\$800
Human Papillomavirus (HPV) vaccine	90593	90593	\$600-\$800
Human Papillomavirus (HPV) vaccine	90594	90594	\$600-\$800
Human Papillomavirus (HPV) vaccine	90595	90595	\$600-\$800
Human Papillomavirus (HPV) vaccine	90596	90596	\$600-\$800
Human Papillomavirus (HPV) vaccine	90597	90597	\$600-\$800
Human Papillomavirus (HPV) vaccine	90598	90598	\$600-\$800
Human Papillomavirus (HPV) vaccine	90599	90599	\$600-\$800
Human Papillomavirus (HPV) vaccine	90600	90600	\$600-\$800



Contact the ACOG Immunization Department



Immunization@acog.org

www.ImmunizationforWomen.org

www.acog.org/immunization



Questions?



The American College of
Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Dr. Bart Smoot

Family Health Centers of San Diego:

Improving adult vaccine assessment through
integration of EHR-based decision aids



FAMILY HEALTH CENTERS
OF SAN DIEGO

Our approach to Immunizations in Adults

Close coupling of EHR based solutions

Goals of talk today

- Discuss ways in which your EHR might work better towards meeting your patient's vaccine needs
- Show data in which VFA programs improve completion of needed vaccines in vulnerable adults
- Discuss ways to engage your support staff in helping providers to complete needed vaccines

Disclosures

I have nothing to disclose!

Background

- Family Health Centers is a Federally Qualified Health Center in the San Diego area
 - 37 different sites (includes dental, behavioral health, other support services)
 - 130,000 unique patients annually
 - 600,000+ unique visits annually
 - 150+ providers
 - 2000+ employees
 - FM (and now Scripps IM) residency program

Clinic Locations
Beach Area Family Health Center
Chase Avenue Family Health Center
Chula Vista Family Health Center
City Heights Family Health Center
FamilyHealth at City College
FamilyHealth on Commercial
Diamond Neighborhoods Family Health Center
Downtown Family Health Center at Connections
El Cajon Family Health Center
Elm Street Family Health Center
Grossmont Spring Valley Family Health Center
Hillcrest Family Health Center
Ibarra Family Health Center
Lemon Grove Family Health Center
Logan Heights Family Health Center
Mobile Medical Units
North Park Family Health Center
Oak Park Family Health Center
Rice Family Health Center
Sherman Heights Family Health Center
Teen Health Center

Clinic Locations



As one of the largest networks of health centers in Southern California, Family Health Centers of San Diego has locations throughout San Diego County and continues to expand. Visit our website regularly to stay updated with new clinics and sites. For specific information on site services, please explore our individual clinic pages.

CALL US TODAY TO SCHEDULE AN APPOINTMENT: (619) 515-2300.

Background

- Organizational size is large enough to take advantage of some economies of scale
 - Long record of in-house solutions to problems
 - Fully functioning IT department to develop software solutions
 - In house solutions for almost all software (scheduling, billing, inventory, EHR, etc)
 - Close and constructive collaboration between administration and physicians
 - Flexibility to change course when a particular route is not working or has become obsolete
- Focus is on patient quality
 - But we have to be aware of our payers' expectations
 - Payer mix is about 15% totally uninsured, another 15% mostly uninsured, rest mostly Medicaid (MediCal or payers), 10% or so exchange, another 15% or so Medicare.
 - HRSA is a major grantor of funds for FQHC's

Background

- Our EHR is ‘home grown’
 - Provider Champions were critical in acceptance of the system as well as key to a more user-friendly system
 - Backbone of our system allows for easily **extensible** changes in the character of our system without IT involvement
 - Much if not *most* of the design changes in our system are *done* by non-IT people
 - **Order Sets** – collaboration between specialists and primary care, and maintained by our small provider team
 - **Message Pools** - allow for extensibility in messaging as practice models in our clinics change
 - **Problem searches** are provider designed and maintained
 - Conversion to ICD10 was seamless for the majority of our providers
 - **Decision aids** are based on a platform that allows them to be easily modified and added to
 - **Documents** have auto-fill of relevant fields making PAs, morbidity reports and similar documents quicker and easier to fill out
 - **Trends** allow for real-time problem based review of patient care
 - **Interact** provides computer generated dialogs to allow MA’s and other support staff to execute ‘top of scope’ interventions in focused patient improvement

Vaccine needs are fully integrated into our EHR

- Currently utilizes the county registry (San Diego Immunization Registry) which is part of California Immunization Registry (CAIR)
- System wide solutions that address many metrics at once using a common pathway can result in overall improvements on many fronts
- Involving providers and making use of their expertise, being responsive, having a flexible means to change the behavior of the system have helped us
- Interdisciplinary teams to address specific improvements have also been very important
- Having the EHR help our providers has been key
 - Order sets (there are almost 600 in our system) also serve as reminders to not forget things associated with specific problems and include specific immunizations for specific problems
 - Decision aids in lieu of pop-up reminders prevents 'reminder fatigue'
 - The logic behind decision aids can be exploited for tailored interventions from support staff

Immunization Registry View

Get Predictions Admin for Child

	Immunization	Immu. Date	Dose	Comment	Source	Status	ModUser
	INFLUENZA (TIV-INJECTABLE) - Influenza	2012-10-09 [Age: 69 Yrs]	8	INFLUENZA (TIV-INJECTABLE)	Nursing	Current	FIGUEROA, LAURA
	INFLUENZA (TIV-INJECTABLE) - Influenza	2013-11-08 [Age: 71 Yrs]	9	INFLUENZA (TIV-INJECTABLE)	Nursing	Current	BRAVO, CHRISTINA
	INFLUENZA QDV - Influenza	2014-11-25 [Age: 72 Yrs]	10	INFLUENZA QDV	Nursing	Current	CABRERA, DARLINE
	INFLUENZA (TIV-INJECTABLE) - Influenza	2015-10-02 [Age: 72 Yrs]	11	INFLUENZA (TIV-INJECTABLE)	Nursing	Current	RIVERA, MARCI
Group Name: PneumoPCV							
	PCV 13 - PneumoPCV	2019-07-11 [Age: 76 Yrs]	1			Due	SMOOT, CHARLES
Group Name: PneumoPPV							
	PPV 23 - PneumoPPV	2013-02-12 [Age: 70 Yrs]	1	PPV 23	Nursing	Current	BRAVO, CHRISTINA
Group Name: Td							
	TD - Td	2019-07-11 [Age: 76 Yrs]	3			Due	SMOOT, CHARLES
	TD - Td	2005-12-01 [Age: 63 Yrs]	1	TD	SDIR	Current	BATCH,
	TDAP - Td	2015-01-01 [Age: 72 Yrs]	2	done outside clinic	EHR	Current	ESCOBEDO, CHRISTIAN
Group Name: Zoster - SHINGRIX							
	SHINGRIX (ZOSTER) - Zoster - SHINGRIX	2019-07-11 [Age: 76 Yrs]	1			Due	SMOOT, CHARLES

ADD IMMUNIZATION

Select Immu. Date Dose: Comment:

EHR design: Order Sets

- Built by providers for providers
- Are changing every week!
- Almost 600 of these in our system now
- Once the basic concept is taught to providers then additions or changes can occur without the need to communicate every single change

EHR support

- Diabetes order set (includes specific Imms for that issue)

- Liraglutide (Saxenda) 3.0mg Daily #5 w/3RF
- Semaglutide (Ozempic) Initial dosing 0.25 mg/wk SQ x 4 weeks, then 0.5 mg/week #1 1.5 mL pen w/ 3 RF (PA Molina, United)
- Semaglutide (Ozempic) 1mg/week SQ #2 1.5mL pen w/ 3 RF
- Note: Insulins
- Insulin Lantus 10u HS 1 vial w/ 3 RF
- Insulin Levemir 10u HS 1 vial 3RF
- Insulin Basaglar 10U HS #1 pen w/ 3RF [1 pen= 300 units] (Molina, req for new insulin starts)
- Insulin NPH 10u BID 1 vial 3 RF
- Insulin 70/30 10u BID 1 vial 3 RF
- Insulin Regular Novolin (Sample Sliding Scale) w/ meals
- Insulin Novolog (Sample Sliding Scale) w/ meals 3 RF (Covered on Str. MediCal)
- Humalog Sliding Scale #1 w/ 3 RF (Str. MediCal, CHG, Care 1st)
- Admelog Sliding Scale #1 w/ 3RF (United, CHG, Care 1st, Molina)
- ASA 81 mg Daily #30 11 RF (Consider risk/benefit, caution if hx GIB))
- Note: Diabetic Testing Supplies
- Glucometer #1
- Glucometer Strips and Lancets #50 w/ 11RF
- Glucometer Strips and Lancets #100 w/ 11RF
- Glucometer Strips and Lancets #150 w/ 11 RF
- Lancets (only) #50 w/ 11RF (if pharmacy wants Lancet order sep., change # as needed)
- Insulin Syringes #50 w/ 11RF
- Insulin Syringes #100 w/ 11 RF
- Insulin Syringes #150 w/ 11RF

- Urine Micro/Creat
- Vit B12 (consider for neuropathy w/ long term metformin use)
- Chronic Care Package Labs for DM II (CMP, Hemoglobin A1C , Lipids, Urine Micro)

CONSULT

- Endocrinology - High Risk DM Clinic @ Logan
- Endocrinology - High Risk DM Clinic @ El Cajon
- Diabetes Educator
- Dental (annual)
- Endocrinology (outside FHCS)
- Mental Health
- Registered Dietician - FHCS*
- Optometry (annual vision exam)*
- Optometry - Retinal Scan Only - (For SELF PAY Patients - \$30)*
- Podiatry (FHCS)
- DMCP Group Visits w/ provider (DMCP - Diabetes Management Care Program) rec'd for insured. \$25 self pay cost *

IMMUNIZATIONS

- Hep B (Std. Adult Dose)
- Influenza (inactivated)*
- Prevnar (PCV13) (Wait 1 year between PCV13 and PPSV23)
- Pneumovax (PPSV 23) (PCV13 not indicated till 65 yo)*
- Note: If rec'd PPSV prior to 65 yo, needs to be 5 years since last vaccine to re-administer.

- Encourage exercise 3-5 x/week for 30 minutes
- Sick Day Plan - English
- Sick Day Plan - Spanish
- Note: Provider Resources
- Note: Scripps Diabetes Handouts (Multiple Languages)
- Note: Link to Diabetic Education for Low Literacy Patients (English and Spanish)

PATIENT & PROVIDER EDUCATION/RESOURCES

- DM2 Basics (2 pages, ADA)
- DM2 Basics - Span
- DM2 & HTN (2 pages, ADA)
- DM & HTN - Spanish
- DM2 - Overview (Comprehensive, 10 pages, familydoctor.org)
- DM2 - Overview Span
- Game Plan (Fill out, ADA, 2 pages)
- Game Plan - Spanish
- Glucose Log (2 pages, ADA)
- Glucose Log - Spanish
- Insulin Basics (4 pages, FamilyDoctor.org)
- Insulin Basics - Spanish
- Nutrition (11 pages, comprehensive, FamilyDoctor.org)
- Nutrition - Spanish
- Diabetes Sick Day, English
- Diabetes Sick Day - Spanish
- Diabetic Neuropathy - English

EHR Support: Decision Aids


- Age, gender, problem specific
- Designed by providers for providers
- Context-sensitive emphasis
 - Bold are highest priority
 - Will not show an aid where context is not appropriate (e.g. Mental Health appointment will not show that a diabetic foot exam is overdue)
- Easy ‘organization wide’ interventions shown to place patient on pathway to getting problem satisfied
- Allows for easier teaching of system. “One stop shop” to satisfy health metrics
- As things change, less teaching is needed – once basic system is understood then easier to follow what interventions to use
- Over 130 of these now exist in our system. We’re building more every week!
 - E.g. new 2019 California law to rx Narcan to certain vulnerable populations

EHR Support – Decision Aids

- Simple and intuitive – show only what needs attention
- Do not ‘pop-up’ such that they cause provider fatigue (and thereby get ignored)

▶ women's health: breast Cancer screening	OVERDUE	Overdue for mammogram	
▶ Adult Imms: PCV13	OVERDUE	PCV13 is indicated (age over 65 yo). If PPSV23 is also due, give PCV13 this visit and wait at least 12 months to give PPSV23	
Exclusion	Select	Order	Select
Not indicated (provider feels immunization not indicated)	<input type="checkbox"/>	PCV13 (At least once as adult, preferably prior to PPSV23, or one year after)	<input type="checkbox"/>
Patient Declined	<input type="checkbox"/>	Note: CDC link for PPSV schedules & info	<input type="checkbox"/>
▶ Adult Imms: PPSV23	OVERDUE	Patient is over 65 and is due for a PPV23 immunization	
▶ Adult Imms: Shingles	OVERDUE	Shingles shot is due. Please order appropriate to patient's insurance	
▶ Adult Imms: Td or Tdap every 10 years	OVERDUE	Tdap is overdue	
▶ Adults: ASCVD Statin Risk Calculator	NOT MET	Lipid panel is needed to determine ASCVD risk! Score = -1%	

Decision Aids are age and problem specific for adults

▶ <i>Adult Imms: MCV4</i>	OVERDUE	HIV+ will need booster after 8 weeks Active Problem: 042	
▶ <i>Adult Imms: Hep B</i>	OVERDUE	Hep B not immune. Booster or immunization series is due Last Draw Date: 06/21/2019 Test: Hepatitis C Virus (HCV) Antibody (AB) (GW-AR) Result: 0	
▶ <i>Adult Imms: PCV13</i>	OVERDUE	PCV13 is indicated (age over 65 yo). If PPSV23 is also due, give PCV13 this visit and wait at least 12 months to give PPSV23	
▶ <i>Adult Imms: PPSV23</i>	OVERDUE	Patient has an immune compromising condition for which a PPSV23 is due Active Problem: 042	

Auto-recalculates to 2 months for PCV13 once given for HIV+

Decision Aids

PATIENT'S DECISION AID

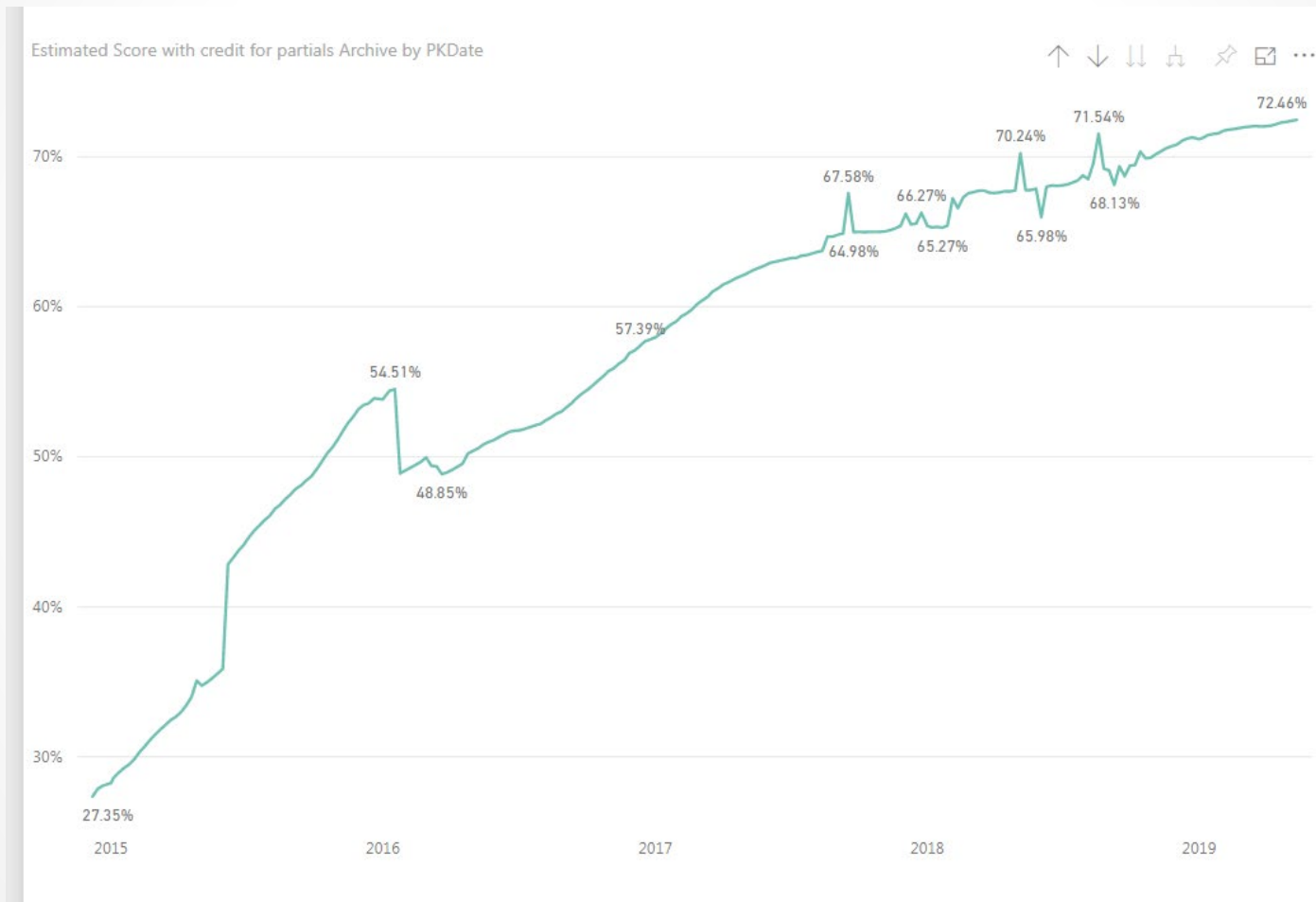
Show All Expand All

Title	OutCome	Notes	Manage
▶ Adult/Teen Chlamydia Screen and Treat	EXCLUDE	No chlamydia screening on file in last 5 years	
▶ Adult/Teen Gonorrhea Screen and Treat	EXCLUDE	No gonorrhea test on file in last 3 years	
▶ Adults: Afib Anticoagulation using CHADS2 score	SATISFIED	Patient is taking warfarin [Active Medication]	
▶ Adults: Colon Cancer Screening	SATISFIED	Abnormal Colonoscopy. Next colonoscopy is Comment: Polyp removed. 3 year f/u Exp on: 05/01/2017	
▶ Adults: Hypertension (<140/90)	NOT MET	BP is over 140/90	
▶ Adults: Routine Vision Screening	SATISFIED	Completed Appt: 02/12/2016	
▶ <i>Adult Imms: Hep A</i>	EXCLUDE	Patient shows immunity to Hepatitis A. Unnecessary Last Draw Date: 12/17/2014	
▶ <i>Adult Imms: Hep B</i>	EXCLUDE	Not indicated due to lab evidence of immunity (or core Ab positive at provider discretion)	
▶ <i>Adult Imms: PCV13</i>	SATISFIED	PCV13 received [Last Imm on 04/28/2016]	
▶ <i>Adult Imms: PPSV23</i>	SATISFIED	PVX within last 5 years [Last Imm on 01/10/2014]	
▶ <i>Adult Imms: Td or Tdap every 10 years</i>	SATISFIED	Tdap in last 10 years [Last Imm on 10/24/2014]	
▶ <i>Adult Imms: Zoster</i>	EXCLUDE	Contraindicated (live vaccine) Comment: Live vaccine contraindicated	
▶ <i>Adult/Adolescent Depression Screening</i>	SATISFIED	Recent PHQ2 screening - negative Last PHQ 2 on 02/18/2016 - Score = 0	
▶ <i>Adults: ASCVD Aspirin Prescribing Calculator</i>	EXCLUDE	Patient taking warfarin. The decision to prescribe aspirin as well needs to be individualized. ASCVD risk 19.62% [Active	



Bold are incentivized

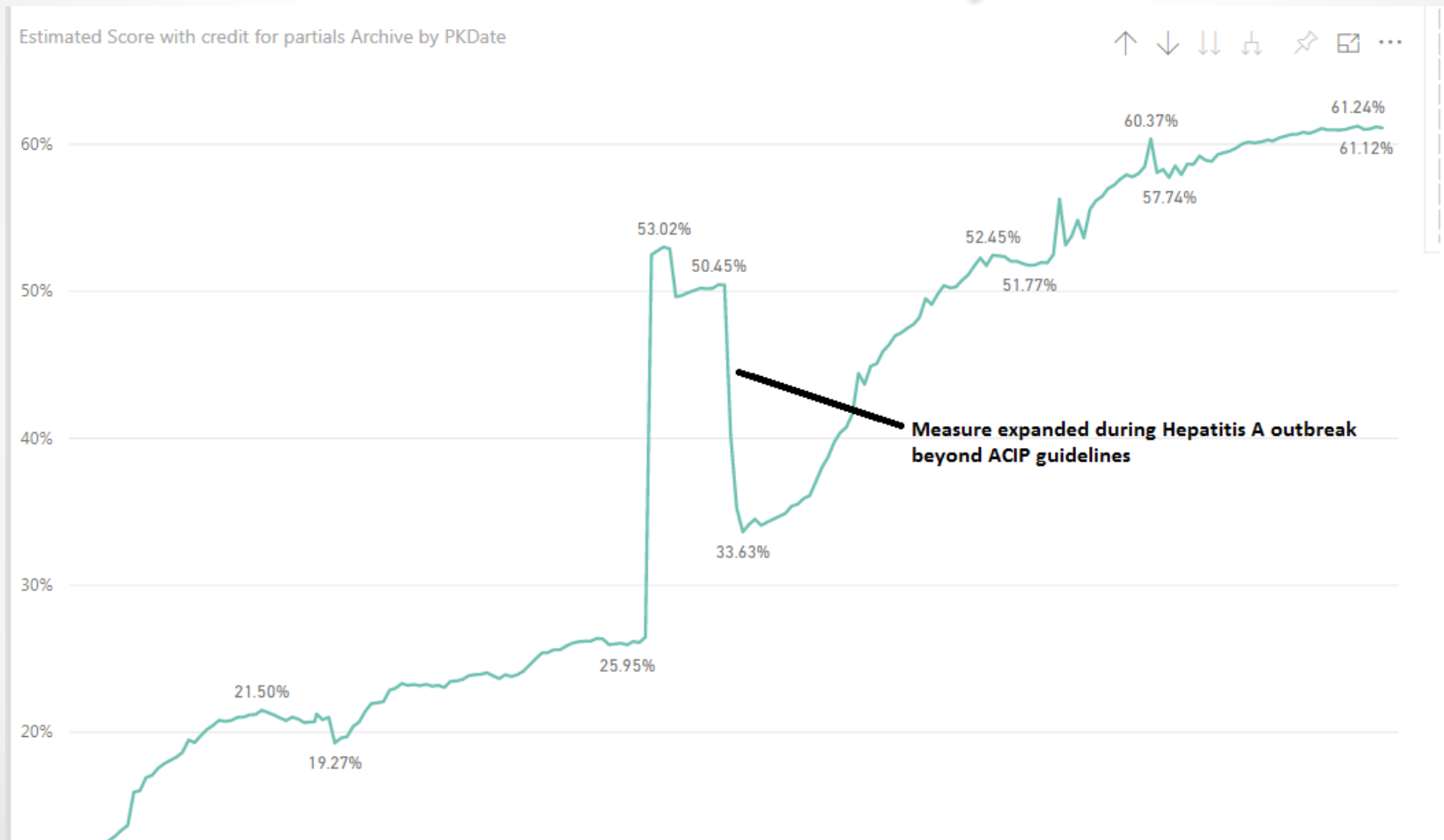
Decision Aids are working! (Tdap completion in 18+ yo)



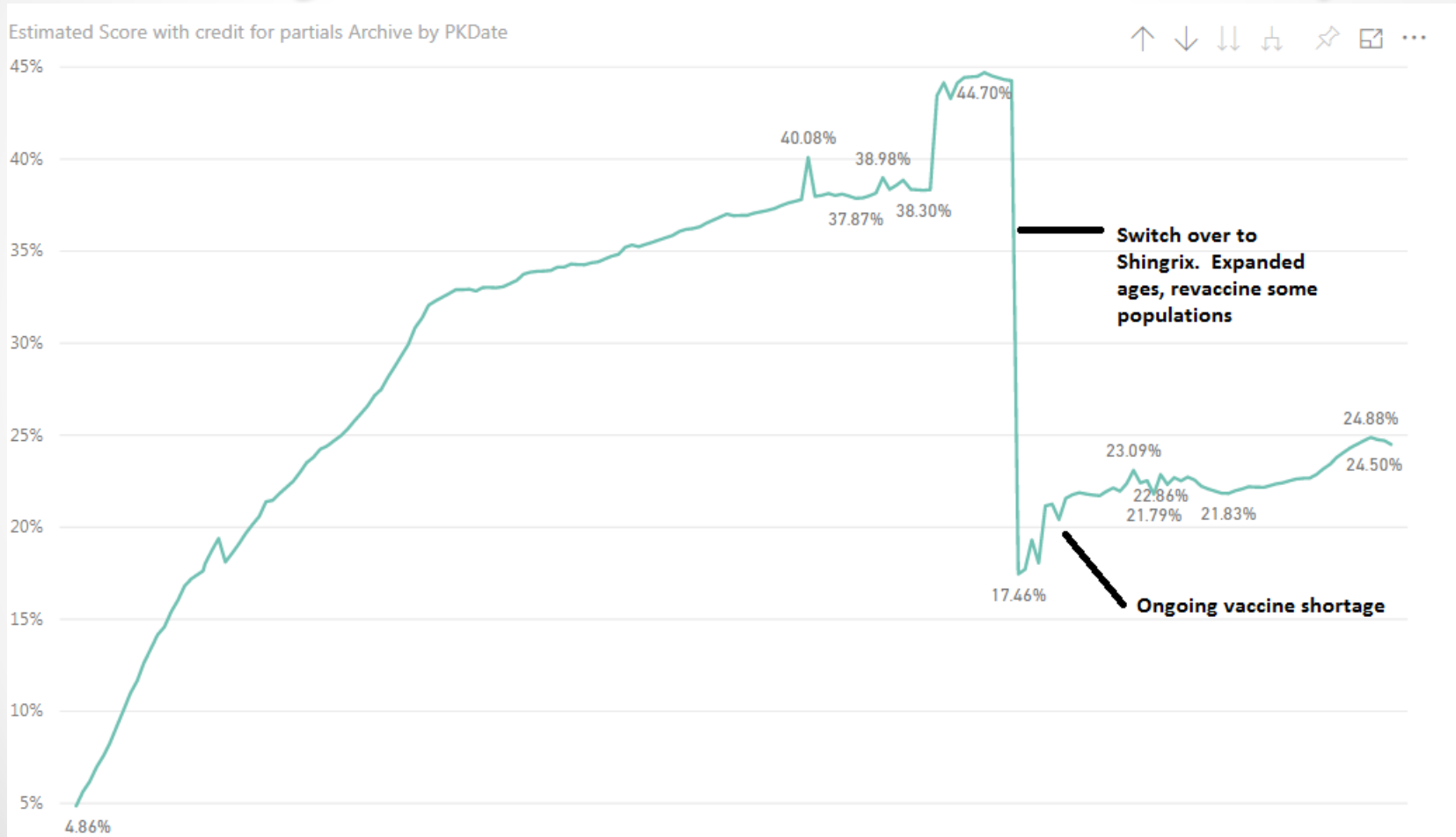
PCV13 completion (over 18 yo all indications)



Hep A (18 yo+ where indicated)



Zoster and Shingrix (over 50 yo with exclusions)



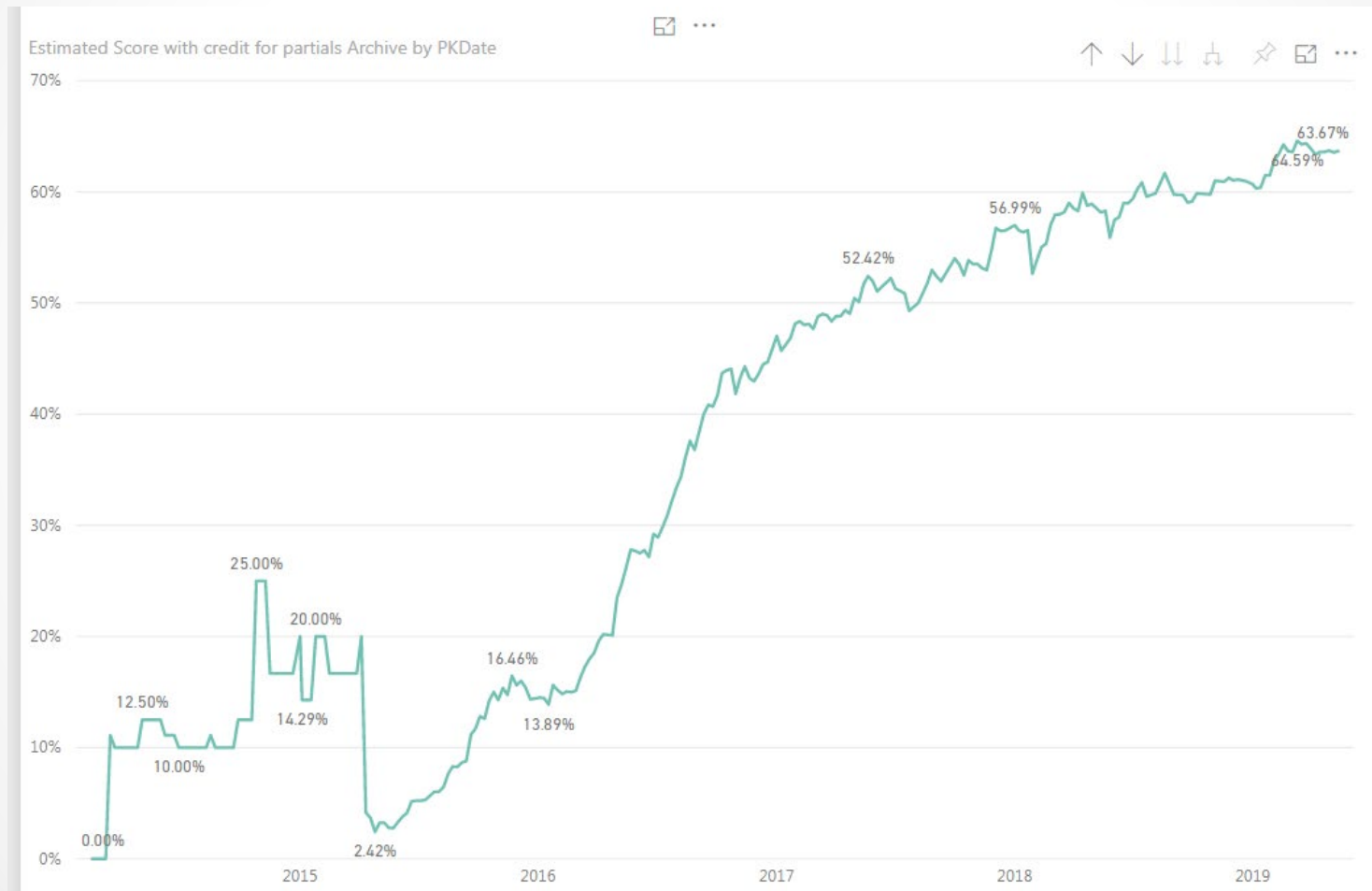
Data Analysis

- Extensive capabilities now
- Hosted on 'cloud' servers for system-wide review
- Provide automated composite analysis of our patient populations
- Allow for easy 'dive down' information that allow our individual clinics to quickly find patients needing interventions

Impact of VFA (PCV13 in VFA clinic)



Vs PCV13 in non-VFA clinic



MA's and support staff at top of scope

- Allows us to work more efficiently to address a myriad of healthcare issues systematically
- Empowers MA's to provide healthcare interventions *before* the patient is seen by the provider

MA/Nurse Top of Scope - Interact

Well Woman	Older Adult Services Screening	Housing screening	Healthy Literacy	CC Screening Due	Adult Imms
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Our records show that you are due for a tetanus shot. Do you think you've had this shot already in the last 10 years?

No or not sure

OK. Would you like this shot today? If you lack insurance, the cost is approximately \$35. With insurance, there is generally no charge

Please Select

Our records show that you are due for a pneumonia shot (PCV13). Can we offer this shot today?

Yes

OK. I will prepare the necessary paperwork and get you this shot today

For nurse: is patient going to receive the PCV13 immunization today? (note that unless you have already discussed this above and ordered the PCV13 then the answer is no)

Yes

MA/Nurse Top of Scope – Interact

- Most vaccines are actually initiated by our MA's for both Pediatrics and Adults!
- Key barrier is additional rooming time, and labor (more MA's to get through scripts)
- Standing orders happen during MA/nursing visits, particularly for kids (better access) but also adults for some indications (flu shots for instance)
- Nursing gets weekly reports to monitor ordered vaccines not given to ensure good supplies
- Other clinics run queries on their patients behind in their vaccines to come in for vaccines

Interact results of interest are then presented to provider

Comment: N/A Nursing Comments:

Note: Patient reports recent ER/Hospitalization on UCSD Hillcrest at 012019 [asked on:01/31/2019]



Links to actual script

Pt declined setting personal health goal right now, pt answered Yes/Sure on setting a goal at a later date. [asked on:01/31/2019]



- Show results from screening (alcohol, DV, depression, specialty screens)
- Show results from scripts where patient is declining something you might want to address
- Show other results of 'interest' – health goals, recent ER visits, recent travel, etc.

Impressions

- The EHR has empowered providers to ask for additional decision aids and has empowered administration to ask for additional Interact scripts
 - Our methods have provided a means for us to provide a relatively quick way to effect a positive change in health outcomes
 - MA's/nurses also feel they are a more critical part of the healthcare team
- Administration is feeling empowered to *change* Interact scripts to try to improve outcomes
- Still, we see a leveling off that occurs. While interventions get us *part of the way there*, they are not getting us to 100%
 - Not all providers pay attention to decision aids
 - Not all Interact scripts are run 100% of the time
 - And obviously not all patients follow-through on what gets ordered!
- Remains to be seen: how do we engage everyone all the time? (patients, providers, health care staff)

Summary

- Our organization made significant improvements across a wide range of metrics using systematic approaches with customizations

Thank-you!

Questions?

Discussion Questions

- What **best practices** shared today are you interested in implementing in your practice?
What will it take to implement?
- Does your clinic have **standing orders** or a **standard immunization process** in place for assessing, recommending, administering, and documenting vaccination status of patients?
If not, how would you develop one at your practice? Who would need to be at the table?

Discussion Questions

- Does your clinic utilize **EHR order sets** and **decision aids** for adult immunizations?

If not, what would it take to implement?
Consider meeting with providers, staff, IT, EHR rep and other relevant staff to discuss the feasibility of implementing. Are there small steps that your clinic can take?

Questions?

my317vaccines@cdph.ca.gov

[VFA Resources webpage](#)