

# Petaluma Health Center Childhood Immunization Workflow

## Redwood Community Health Coalition Promising Practice

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### PROMISING PRACTICE OVERVIEW

Petaluma Health Center (PHC) has been working to improve childhood immunizations for the past two years. The transition from CAIR 1 to CAIR 2 in 2017 brought to light existing interface and data issues with CAIR and eCW. PHC conducted frequent staff trainings and other interventions to improve data quality for immunizations and minimize missed opportunities for vaccines. They also developed a [pocket guide](#) with PHC's immunization schedule (based on CDC recommendations) for care teams to use on a daily basis. They also developed a [roadmap](#) for patients ages 0-2 years to outline what is recommended. Recalls are done by phone calls which are time intensive and need to be done by an MA due to issues with data validity. Improving data validity by matching eCW to CAIR continues to be an ongoing process and PHC has conducted PDSAs on a couple of strategies and is sharing the workflow they developed.

### AIM

Improve the UDS immunization rate for Childhood Vaccines (up to date 2 years). PHC's childhood immunization rate improved from 28% in December 2016 to 44% in November 2018.

### MEASURES

#### UDS Childhood Immunizations

**Numerator:** Documentation of a full immunization on or before the second birthday; A full immunization is all of the following: 4 DTP/DTap, 3 IPV, 1 MMR, 3 Hib, 3 Hep B, 1 VZV, 4 Pneumococcal conjugate, 1 Hep A, 2 or 3 RV, and 2 influenza.

**Denominator:** Patients who had their second birthday within reporting period; Had at least one medical visit during reporting period; Had at least one medical visit any time prior to the second birthday; Exclusion: contraindication for the vaccine or a history of illness.

PHC has four Relevant reports used for this workflow and they were built so they capture vaccines that should have been completed:

1. Behind on vaccines ages 3-8mo
2. Behind on vaccines ages 9-11mo
3. Behind on vaccines ages 12-17mo
4. Behind on vaccines ages 18-23mo

PHC Pedi Vaccine Schedule - May 2017

2 Mon	4 Mon	6Mon	12-15 Mon	18 Mon	4-6 Yrs	11-12 Yrs	16-18 Yrs
Pediarix	Pediarix	Pediarix	Dtap (infanrix)*		Kinrix	Tdap	
Pedvax Hib	Pedvax Hib		Pedvax Hib			Mening (Menactra)	Mening (Menactra)
PCV13 (Prevnar)	PCV13 (Prevnar)	PCV13 (Prevnar)	PCV13 (Prevnar)			HPV #1 (Gardasil)	
Rota (Rotateq)	Rota (Rotateq)	Rota (Rotateq)	Hep A #1	Hep A #2		HPV #2 (Gardasil)	
			MMR*		MMR-V (Proquad)		
			Varicella*				
Flu Vaccine Annually for everyone 6 months and up (< 8 yrs may need a second dose of FLU)							
Birth dose of Hep B (Total: 4 doses)				* Must be 6 months between Hep A dose 1 & 2			
*Can be given as MMR-V (Proquad)				● HPV: 2-dose series if 1st dose is prior to 15th birthday (0, 6-12 months) 3-dose series if starting after 15yrs, (0,1-2, 6 mo)			
COMBO VACCINES				Min age	Max age	*Dtap: Minimum interval between dose #3 and #4 is six months.	
Pediarix = DTaP + Hep B + Polio				6 wks	6 yrs		
Kinrix = DTaP + Polio				4 yrs	6 yrs		

### ACTIONS TAKEN

In January 2018, PHC exported all of their patient records from CAIR and it took 6 months (~80 hours) to verify eCW data was accurate. PHC determined that the one time data export was a start but that ongoing reconciliation for all new patients and patients overdue for immunizations is needed.

PHC conducted a PDSA with a pediatrician and the care team where they used their monthly population health team time (45 min) to review/reconcile all patients seen in the last three months, as well as patients 0-23 months that were overdue for vaccines. They determined that they could expect MAs to review about 5 charts in 45 minutes.

PHC also engaged in staff and provider trainings around anticipatory guidance and communication with patients including scripting that uses the presumptive approach.

PHC's patient videos on growing up healthy:

Spanish: <https://vimeo.com/293223312>

English: <https://vimeo.com/293213271>

### WORKFLOW



### RESULTS TO DATE

PHC conducted a PDSA where the Health Information Coordinator looked for patients that needed CAIR records more frequently throughout the day. They learned that putting more effort into the chart prep didn't necessarily help because some patients did not show for their scheduled appointments. Since CAIR records did not match eCW, printing CAIR did not help and resulted in a lot of wasted effort to figure out what patients were due for. Ongoing review of all new patients and patients overdue for IZ, using the workflow outlined above, was most efficient. Needed IZ were documented in the chief complaint and addressed when the patient came into the health center.

### LESSONS LEARNED

1. Ongoing review of CAIR for new patients and patients overdue for immunizations is needed
2. Putting more time into data clean up vs. daily chart prep saves time and is more efficient
3. Same day appointments are still a challenge and more PDSAs are needed
4. MAs need to be on board with childhood immunizations as a urgent priority including improving flu vaccine rates