

# QTIP Fall Immunization Project/ DHEC Immunization Quality Improvement Project

*Improving the CPA Way*



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*Lead Quality Provider*

**Pavi Sreekumar**  
*Manager of Quality Programs*

01.22.23

*Our purpose is to nurture and champion the health of all children and their families, and we are proud to be compassionate, relentless advocates for every patient and their family.*

## Who is CPA?

4 Convenient Locations

2 Newborn Centers

2 Clinical Research Locations

Level 3 Patient Centered Medical Home

48,000+ Active Patient Population

48+ Providers (mix of MDs, NPs, PAs)

***14 Providers participating in Immunization QI Workshop***

All offices participating in DHEC Immunization Project



### QTIP Immunization Workshop Participating Providers:

1. Dr. Caristi
2. Dr. Lipke
3. Ms. Zharsky
4. Dr. Stripling
5. Dr. Garcia
6. Dr. Ronin
7. Dr. Loob
8. Dr. Mo
9. Ms. Schofield
10. Dr. Wade
11. Dr. Geils
12. Dr. Pandey
13. Dr. Cuff
14. Dr. Hwang

*Why is this important?*

Develop strategies to improve immunization rates with the children you serve in your practice.

Discuss ways to address vaccine hesitancy and increase vaccine confidence in parents.

Children missed routine vaccines during the pandemic. It is important for providers to help them get caught up so communities are as protected as they can be.

## Our Goal:

To inform and provide pediatricians with information and tools to increase immunization rates in their practice.

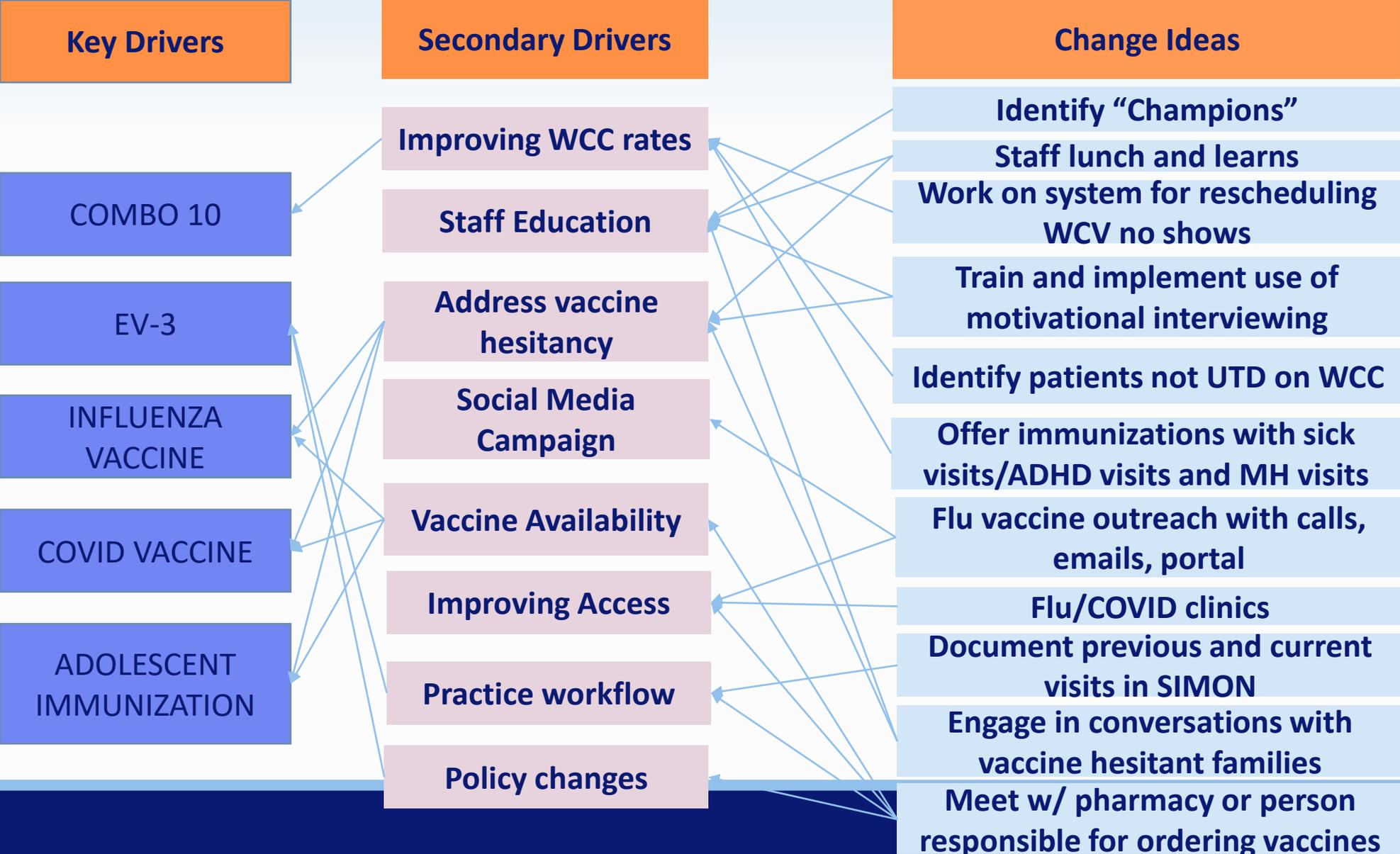
# QTIP Quality Improvement Ideas

## Key Drivers

## Secondary Drivers

## Change Ideas

**SMART Aim:**  
 Increase COMBO 10 and Adolescent vaccination rate by 10% from baseline



# SIMON Immunization Data

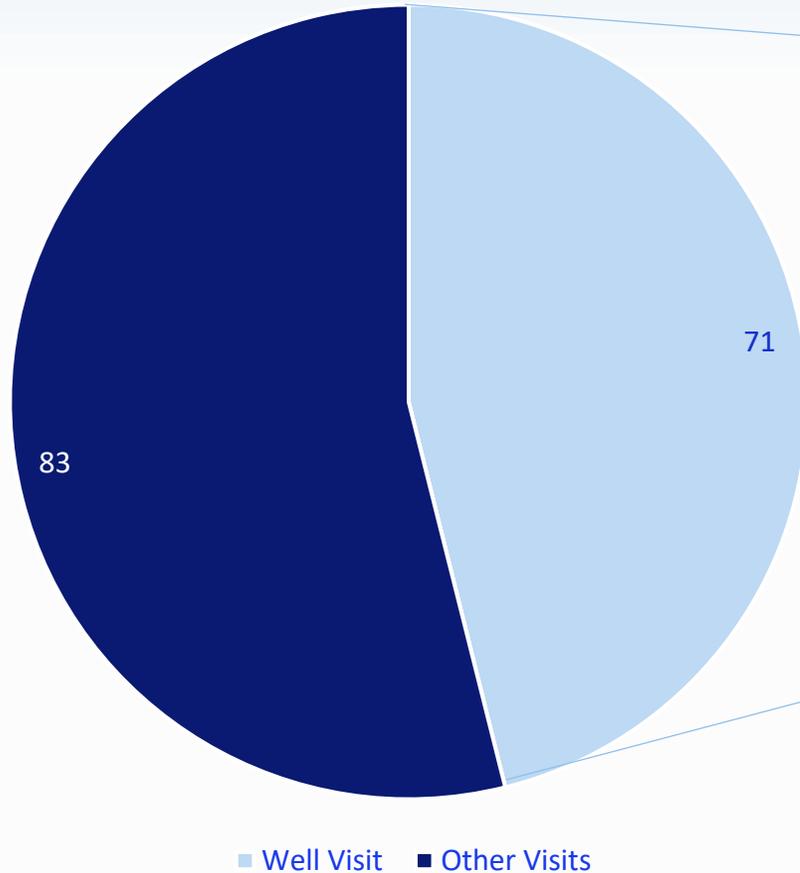
Childhood Vaccination Coverage by Age 24 Months by Birth Year										
Birth Year	Practice	≥4 Doses DTaP	≥3 Doses Polio	≥1 Dose MMR	≥3 Doses Hib	≥3 Doses Hep B	≥1 Dose Var	≥1 Dose Flu	≥4 Doses Pneumo	≥2 Doses Hep A
2019	WA	79.55%	93.18%	87.40%	93.80%	95.25%	86.36%	70.87%	84.50%	20.45%
	SV	71.70%	87.06%	79.38%	86.79%	88.54%	79.38%	65.63%	76.68%	10.65%
	MP	77.78%	88.38%	79.83%	89.74%	91.11%	79.15%	76.58%	78.63%	24.27%
	JI	82.17%	91.92%	88.86%	93.04%	94.71%	86.91%	83.57%	84.96%	30.92%
	<b>Statewide</b>	<b>61.00%</b>	<b>77.04%</b>	<b>75.87%</b>	<b>72.88%</b>	<b>71.11%</b>	<b>74.87%</b>	<b>51.87%</b>	<b>62.50%</b>	<b>37.09%</b>
2018	WA	69.42%	85.37%	77.67%	85.37%	89.31%	76.17%	64.92%	74.67%	13.70%
	SV	73.04%	91.59%	80.58%	92.46%	92.75%	79.42%	66.38%	84.64%	15.65%
	MP	76.59%	92.51%	86.52%	93.45%	91.95%	84.64%	77.53%	81.65%	16.85%
	JI	80.18%	93.60%	88.72%	93.90%	92.99%	87.80%	82.62%	87.20%	38.11%
	<b>Statewide</b>	<b>61.72%</b>	<b>78.32%</b>	<b>76.88%</b>	<b>73.88%</b>	<b>74.60%</b>	<b>75.68%</b>	<b>50.67%</b>	<b>64.36%</b>	<b>34.94%</b>
2017	WA	70.16%	90.63%	77.78%	90.95%	91.59%	77.62%	73.49%	78.57%	14.76%
	SV	76.85%	86.70%	86.70%	88.18%	87.68%	85.22%	64.04%	76.85%	26.60%
	MP	85.17%	93.53%	89.27%	95.27%	93.38%	87.70%	78.71%	83.12%	15.14%
	JI	86.30%	95.07%	90.41%	95.89%	94.79%	89.59%	85.75%	91.23%	40.55%
	<b>Statewide</b>	<b>62.19%</b>	<b>77.46%</b>	<b>77.28%</b>	<b>74.20%</b>	<b>76.20%</b>	<b>76.40%</b>	<b>46.98%</b>	<b>63.33%</b>	<b>33.61%</b>

# SIMON Immunization Data

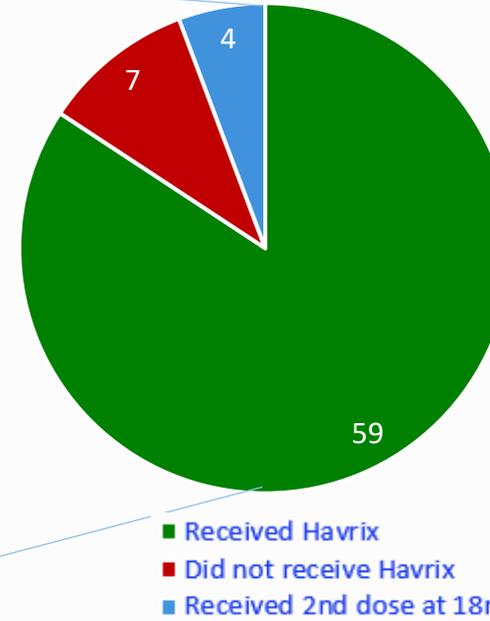
Vaccination Coverage among Adolescents (13-17 Years)								
Year	Practice	≥2 Doses MMR	≥3 Doses Hep B	≥2 Doses Var	≥1 Dose Meni	≥2 Doses Hep A	≥2 Doses HPV	≥1 Dose Tdap
Current	WA	92.26%	94.64%	90.80%	72.89%	78.53%	47.67%	77.61%
	SV	85.20%	87.17%	83.22%	85.53%	74.67%	54.93%	90.46%
	MP	89.86%	91.92%	87.11%	75.40%	75.06%	46.51%	82.46%
	JI	94.71%	95.87%	93.23%	86.67%	77.78%	63.47%	91.64%
	<b>Statewide</b>	<b>62.99%</b>	<b>71.94%</b>	<b>61.24%</b>	<b>60.31%</b>	<b>47.51%</b>	<b>33.95%</b>	<b>70.22%</b>
2021	WA	92.06%	93.53%	90.04%	74.22%	74.62%	47.03%	78.36%
	SV	76.26%	78.21%	74.71%	77.43%	63.42%	46.30%	80.16%
	MP	88.26%	89.70%	85.08%	76.88%	71.86%	46.43%	83.39%
	JI	94.04%	95.53%	92.20%	88.65%	74.66%	62.21%	92.20%
	<b>Statewide</b>	<b>60.39%</b>	<b>70.26%</b>	<b>58.38%</b>	<b>58.25%</b>	<b>41.64%</b>	<b>32.33%</b>	<b>68.07%</b>
2020	WA	89.60%	90.30%	87.21%	73.48%	66.94%	44.93%	77.69%
	SV	64.02%	65.42%	63.55%	61.68%	50.47%	34.58%	66.36%
	MP	83.49%	84.37%	80.67%	76.37%	62.84%	43.32%	83.38%
	JI	91.40%	93.12%	89.80%	88.82%	70.64%	59.83%	91.15%
	<b>Statewide</b>	<b>56.32%</b>	<b>67.09%</b>	<b>53.84%</b>	<b>53.99%</b>	<b>32.60%</b>	<b>29.01%</b>	<b>63.98%</b>

# Baseline Data- Sept 2022

Pts age 24-29 mo seen in Sept by Participating Provider



HepA Vaccine Rates



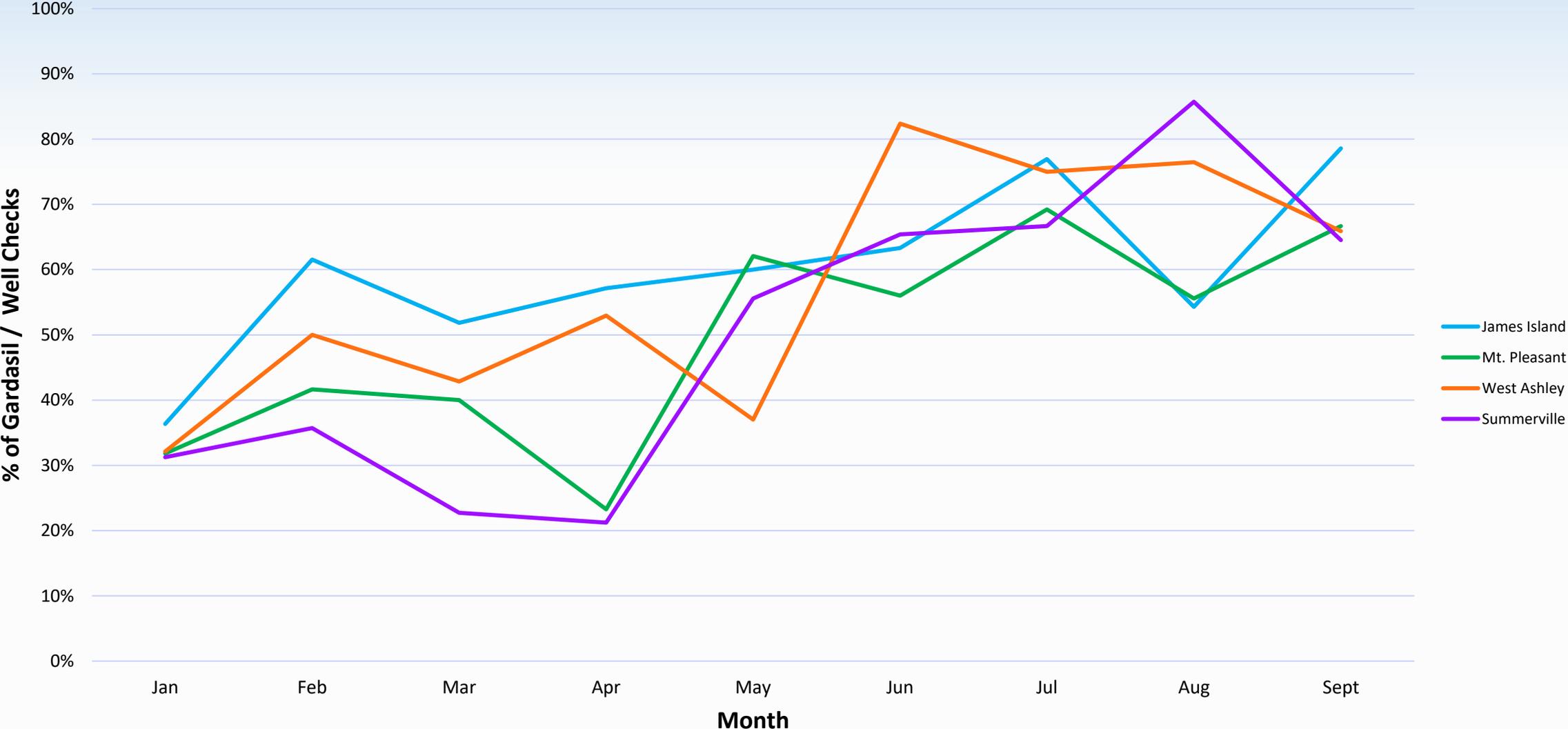
## Use of Z28\* Codes

- 4 (WCC)
- 3 (other)

154 total patients in age group  
71 eligible for HepA  
63 completed HepA series by 2 yr WCC

**\*\* ~88% OF PTS COMPLETED HEPA SERIES BY 2 YR WELL CHECK**

# HPV Vaccinations 2022 by Office at age 11



**\*\* ~55% OF PTS RECEIVED 1<sup>ST</sup> DOSE OF HPV AT THEIR 11 YEAR WELL CHECK (SEPT)**



## Opportunities for improvement identified by Leadership

- Recent uptick in vaccine errors, primarily related to dosing intervals
- Some providers are not reviewing vaccines records, calculating intervals, or communicating vaccine specifics with parents or staff
- Clinical staff are trained to prep charts ahead of time, but this is not being done in all offices.

# Ideas from Providers:

- **Adding the z code for under-immunized status** to the problem list to help identify patients who could catch up on vaccines even during non-WCC visits
- Improve giving DHEC shot records at every WCC (automatically/routinely, without the family asking for it). Can only give it if UTD so would be **a good convo starter**
- Improve **adolescent vaccination** rates (ages 12-18)
- **Improve HepA** rates (Large # of kids needing to update for daycare and school)
- Move 2<sup>nd</sup> dose of HepA vaccine to 18 mo visit



# QTIP Quality Improvement Ideas-CPA

**SMART Aim:**  
 Increase COMBO 10 and Adolescent vaccination rate by 10% from baseline

## Key Drivers

COMBO 10-hepatitis A

EV-3

INFLUENZA VACCINE

COVID VACCINE

ADOLESCENT IMMUNIZATION-HPV

## Secondary Drivers

Improving WCC rates

Staff Education

Address vaccine hesitancy

Social Media Campaign

Vaccine Availability

Improving Access

Practice workflow

Policy changes

## Change Ideas

**Identify "Champions"**

Train and implement use of motivational interviewing

**Identify patients not UTD on WCC and sick visits**

Offer immunizations with sick visits/ADHD visits and MH visits

**Flag charts of under immunized patients**

**Incorporate DHEC resources**

Engage in conversations with vaccine hesitant families

Educate HCP and staff on vaccine verbage and schedules

# PDSA Cycle #1

## PLAN

### *AIM Statement(s):*

- In the next 4 weeks, at least **90%** of patients **aged 24-29 mo** will have received 2 doses of **HepA** vaccine by their 2 year well visit. Patients who are **overdue** for HepA vaccine, will have note added to yellow sticky.
- In the next 4 weeks, at least **75%** of patients **aged 11 yrs** will have received 1 dose of **HPV** vaccine at their 11 year well visit. Patients who are **overdue** for HPV vaccine, will have note added to yellow sticky.

## STUDY

*\*\* Reviewed Baseline Data*

## DO

- Participating providers will **review vaccine history of all pts aged 24-29 mo & 11 yrs at any visit, and document if they are due for HepA or HPV vaccine in the yellow sticky note of chart.**
- Participating providers will **review all additional resources** provided on slides and collaborate with their clinic **“Immunization Champions”** to adapt resources that will best help their staff.
- ***Suggestion:*** include recommended, overdue, and declined vaccines in the Discussion portion of note so families can view.

## ACT

*\*\* Will meet early Nov to review and analyze Cycle 1 Data*

## 1) Documenting in EMR

The screenshot shows the AthenaOne EMR interface for a patient named Asqintegration TEST. The interface includes a navigation bar with tabs for Calendar, Patients, Claims, Financials, Reports, Quality, Apps, and Support. A yellow sticky note is placed over a reminder for Hepatitis A #2, stating: **Reminder flagged in yellow sticky note**. The Quality tab is highlighted, showing a list of reminders including: Annual dental visit (Past due), COVID-19 Vaccination: General Population Age 6 months+ (Past due | Out of range), Developmental Screening (Past due), DTaP Child (Past due), Fluoride varnish (Past due), Childhood immunization:Hib (Past due), Hepatitis A Child (Past due), and Hepatitis B Child (Past due). A table for Hepatitis A Child shows a dose schedule with two entries, both marked as 'Needs Data'. A red box highlights the 'Automatic reminders in Quality tab' text at the bottom left.

## 2) Tracking Vaccines Not Given in A/P Section

The screenshot shows the 'Assessment & Plan' section in the EMR. It displays a list of orders for 'Havrix (PF) 720 Elisa unit/0.5 mL intramuscular syringe'. The status for this vaccine is 'Not Given', which is highlighted with a red box. Other details include the supervising provider, dosage (1 moderate), and a perform date of 10-13-2022. An alert at the bottom states: 'Dosage range checking cannot be performed for this drug and/or patient.'

## 3) CDC Scheduler App

The advertisement for the CDC Vaccine Schedules App features the CDC logo and the text: 'Download the CDC Vaccine Schedules App'. It includes icons for the App Store and Google Play, indicating the app is available on both platforms.

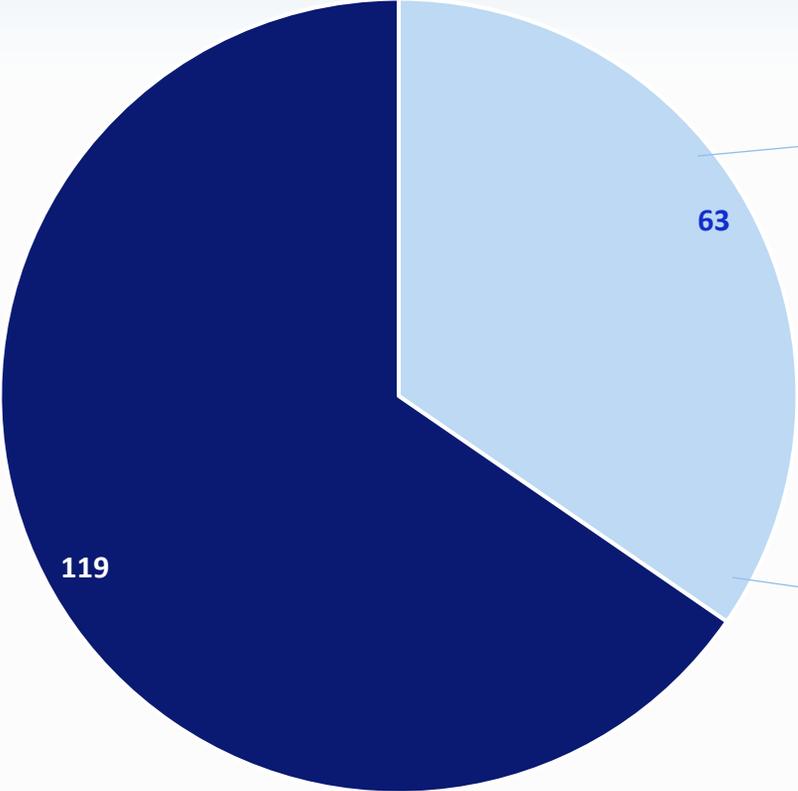
## 4) Provided Instructions for Accessing SIMON

The screenshot shows the SIMON (Statewide Immunization Online Network) interface. The title is 'How to lookup what vaccines patients are due for in SIMON'. The instructions are:   
1) Once logged into SIMON, click on Patient Search at top of screen.   
2) Enter patient's Last Name, First Name, and DOB & click Search.   
3) Click on drop down arrow by demographics, and click on Immunizations.   
The interface shows a search form with fields for Patient ID, Identifier Type, Identifier Value, Last Name, First Name, Middle Name, DOB, and Gender. A 'Search' button is highlighted with a red box. The search results show 'Search Results - 1 record(s)'.

Automatic reminders in Quality tab

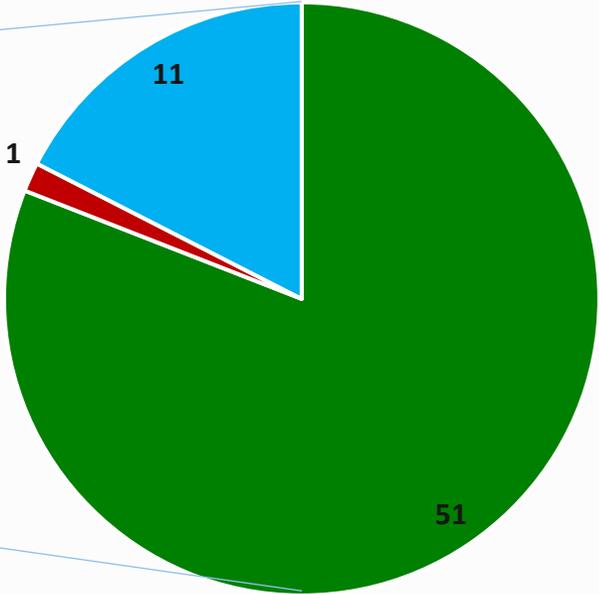
# Cycle 1 Data- Oct 2022

Pts age 24-29 mo seen in Oct by Participating Provider



Well Visit Other Visits

HepA Vaccine Rates



Received Havrix Alternate Schedule Received 2nd dose @ 18 mo WCC

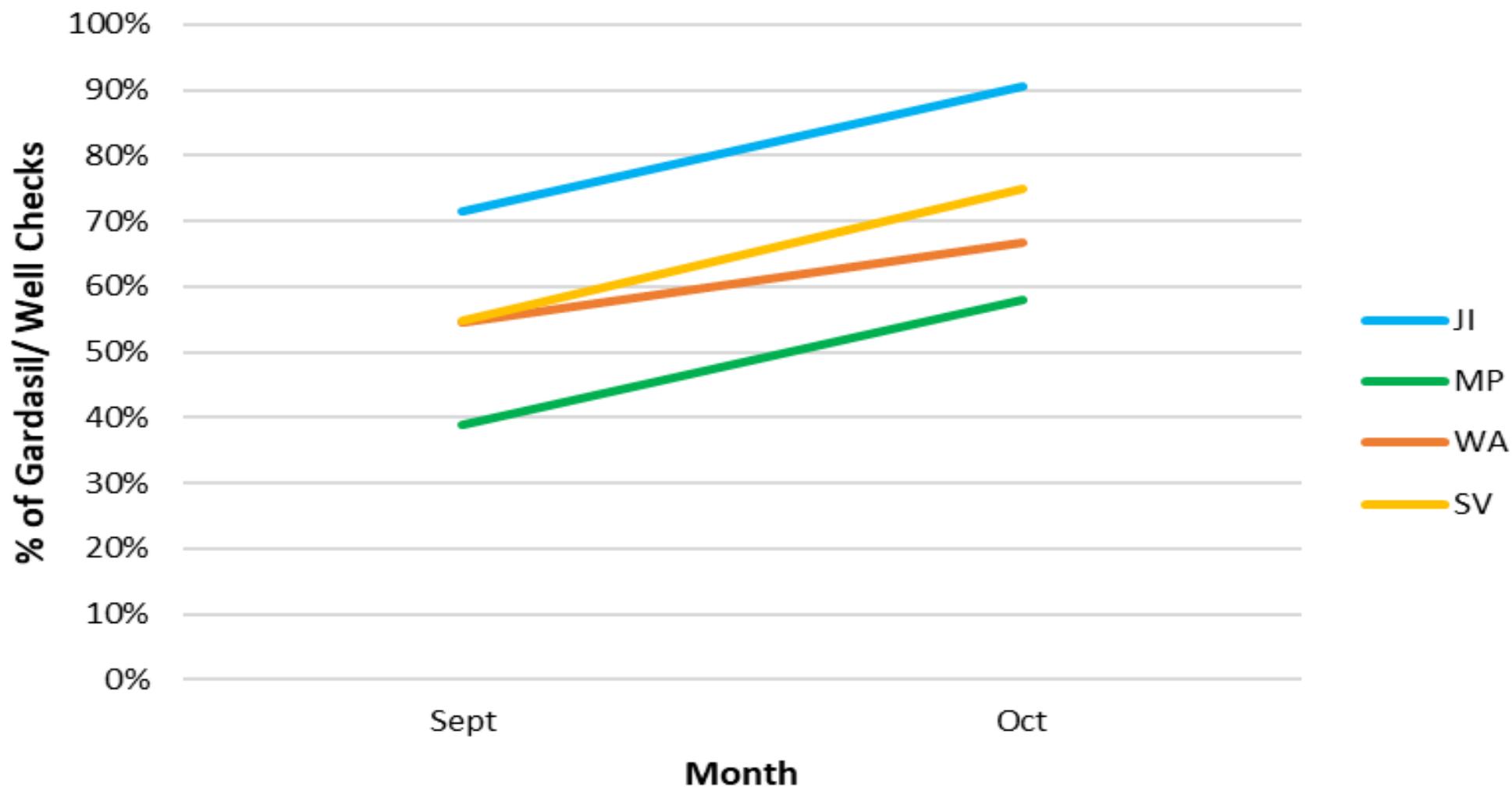


↑ 10%

**\*\* ~98% OF PTS COMPLETED HEPA SERIES BY 2 YR WELL CHECK**

182 total patients in age group  
63 eligible for HepA  
62 completed HepA series by 2 yr WCC

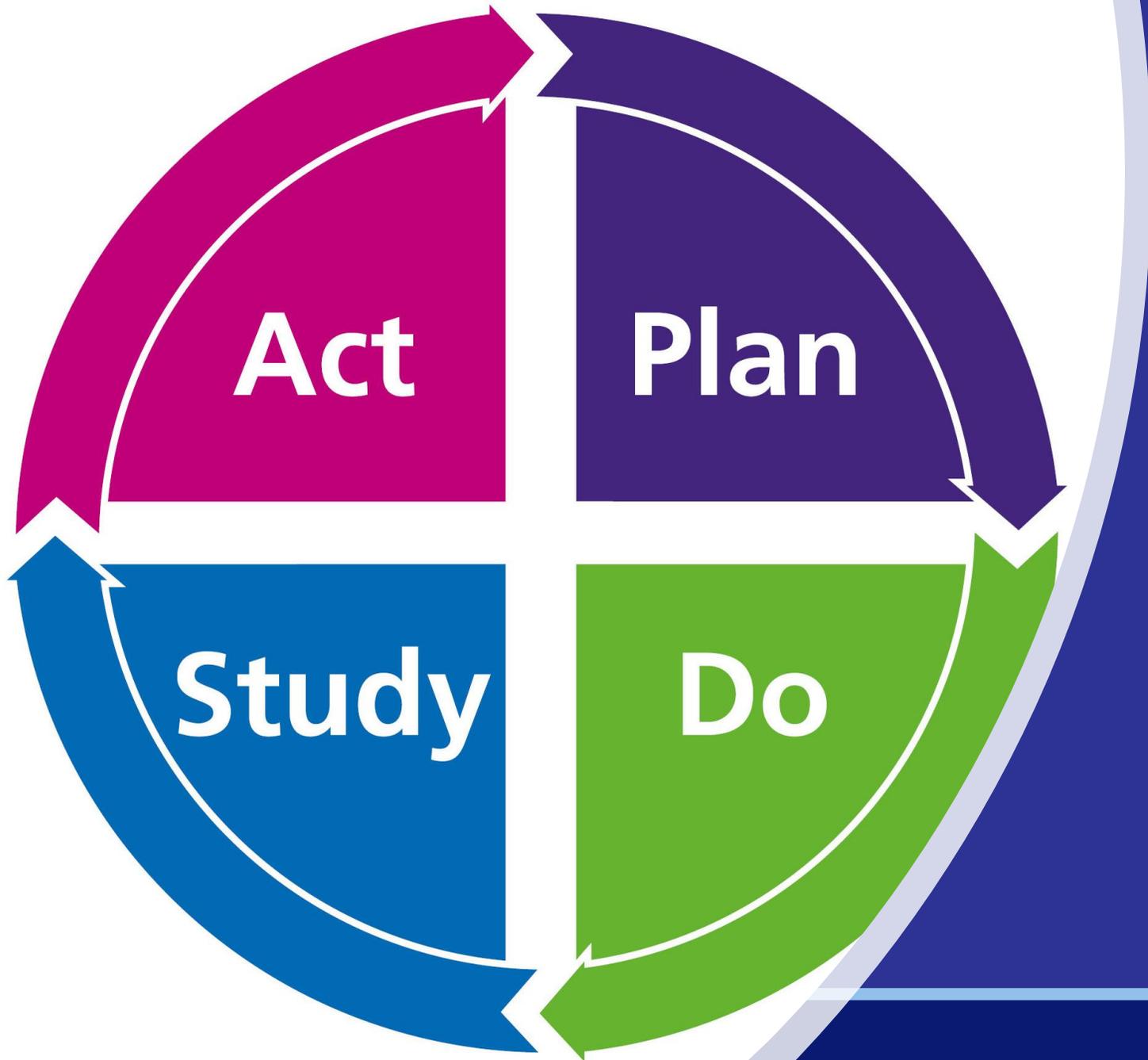
# HPV Vaccines at 11 yr WCC (All Providers)



↑ 18%



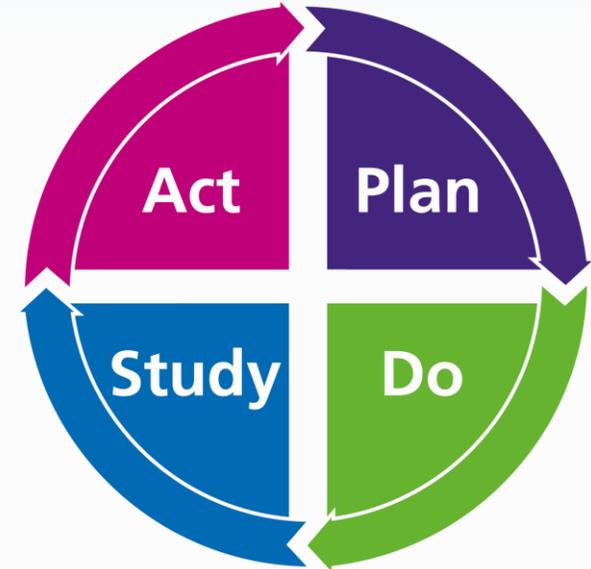
**\*\* ~73% OF PTS RECEIVED 1<sup>ST</sup> DOSE OF HPV AT THEIR 11 YEAR WELL CHECK**



Success stories  
and what's  
next? PDOSA#2

# Change ideas- Cycle 2

- Participate in EV3 Social Media Campaign
- Move 2nd dose of HepA vaccine from 24 mo to 18 mo WCC
- Adding Z28.82 under immunized Z code to Assessment and Problem list of note.
- Give DHEC "Vaccines for Preteens and Teens" brochure to all families at 9 and 10 yo well checks.
- Provider and clinical staff education: Motivational Interviewing training, Redbook webinars, Apps, Qtip resources



# QTIP Quality Improvement Ideas-CPA

**SMART Aim:**  
 Increase COMBO 10 and Adolescent vaccination rate by 10% from baseline

## Key Drivers

COMBO 10-hepatitis A

EV-3

INFLUENZA VACCINE

COVID VACCINE

ADOLESCENT IMMUNIZATION-HPV

## Secondary Drivers

Improving WCC rates

Staff Education

Address vaccine hesitancy

Social Media Campaign

Vaccine Availability

Improving Access

Practice workflow

Policy changes

## Change Ideas

Identify "Champions"

Train and implement use of motivational interviewing

Identify patients not UTD on WCC and sick visits

Offer immunizations with sick visits/ADHD visits and MH visits

Flag charts of under immunized patients

Incorporate DHEC resources

Engage in conversations with vaccine hesitant families

Educate HCP and staff on vaccine verbage and schedules

# PDSA Cycle #2

## PLAN

### *AIM Statement(s):*

- In the next 4 weeks, at least **95%** of patients **aged 24-29 mo** will have received 2 doses of **HepA** vaccine by their 2 year well visit. Patients who are **overdue** for HepA vaccine, will have note added to yellow sticky.
- In the next 4 weeks, at least **75%** of patients **aged 11 yrs** will have received 1 dose of **HPV** vaccine at their 11 year well visit. Patients who are **overdue** for HPV vaccine, will have note added to yellow sticky.
- At least **75%** of participating providers will attend the **Motivational Interviewing training on 11/21/22** (Coastal Wavelengths) or watch recorded session by 12/10/22.

## STUDY

*\*\* Reviewed October Data*

## DO

- Participating providers will **review vaccine history of all pts aged 24-29 mo & 11 yrs at any visit, and document if they are due for HepA or HPV vaccine in the yellow sticky note of chart.**
- Participating providers will **review additional resources** provided and **collaborate with Immunization Champions to order resources from DHEC Library**
- **MI training**

## ACT

- *Attach **DHEC Brochure** to 9 & 10 yr WCC packets.*
- *Discuss with families **what vaccines they will be getting at next WCC.***
- *Enhance pre-visit preparations (utilize **Quality** tab).*
- *Focus on **presumptive scripting***

## Preteen and Teen Vaccine Checklist

- Tdap Booster
- HPV vaccine
- Meningococcal vaccines
- Yearly flu vaccine

Talk with your preteen's or teen's health care provider to make sure your child is up to date on all childhood vaccines.



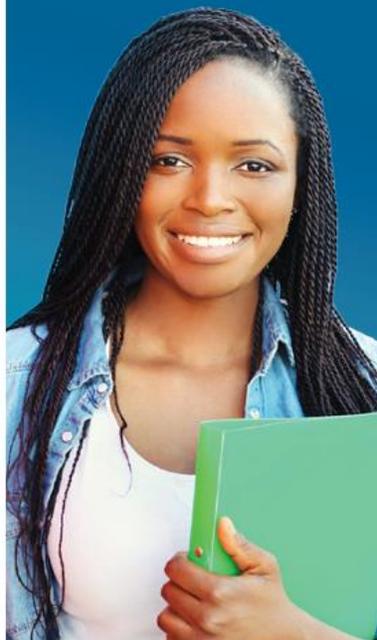
At your preteen's or teen's next visit, yearly checkup, or sports physical, talk to your child's health care provider about any vaccines that are needed.

For more information visit [www.scdhec.gov/scimmunize](http://www.scdhec.gov/scimmunize) or [www.cdc.gov/vaccines/teens](http://www.cdc.gov/vaccines/teens)



ML-028892 10/16

## Vaccines for Preteens and Teens



### Tdap vaccine

The tetanus-diphtheria-acellular pertussis (Tdap) vaccine is a booster shot that helps protect your preteen or teen from three serious diseases: tetanus, diphtheria and pertussis (whooping cough). This vaccine is recommended to be given at age 11 or 12 years.

Tetanus (lockjaw) is caused by a germ that enters the body through a cut or wound. Diphtheria and pertussis (whooping cough) are caused by germs that are spread through coughing or sneezing.

**Tdap vaccine is required for 7th grade entry in South Carolina schools.**

#### What else do I need to know?

- The Tdap vaccine has been studied very carefully and is safe.
- The Tdap vaccine may have mild side effects, like soreness or redness in the arm where the shot was given, headache, fever or tiredness.
- Serious side effects from the Tdap vaccine are rare.



### HPV vaccine

The human papilloma virus (HPV) vaccine protects both boys and girls from HPV infection and cancers caused by HPV infection. The vaccine is recommended to be given to all boys and girls at age 11 or 12 years. HPV vaccination is a series of shots given over several months.

The vaccine can be given up to age 26, but it provides better protection against cancer when given at age 11 or 12 years.

**The HPV vaccine can prevent many types of cancer.**

#### What else do I need to know?

- Research has shown that the HPV vaccines are safe.
- The HPV vaccine may have side effects such as pain, swelling, and redness in the upper arm where the shot was given. Some teens also have dizziness, fainting, nausea or headache.
- The HPV vaccine is not required for school entry in South Carolina.

### Meningococcal vaccines

These vaccines help protect your preteen and teen from the bacteria that cause serious infections like meningitis (infection around the brain and spinal cord) and blood infections.

The bacteria can be spread easily from person to person by coughing, kissing or sharing food or drinks.

**There are 2 types of vaccines that prevent meningitis.**

Meningococcal conjugate vaccine, or MCV4, protects against 4 types of the germs that cause meningitis.

All preteens should get one MCV4 shot when they are 11 or 12 years old. They should get a booster shot at age 16.

Serogroup B meningococcal vaccine, or Men B, protects against a different type of the germ that causes meningitis.

Teens and young adults ages 16 to 23 years may also be given the Men B shots. Men B vaccination is a series of shots given over several months.

The best age for teens to get the vaccine is ages 16 to 18 years.

#### What else do I need to know?

- Both vaccines can cause mild side effects, like redness and soreness in the arm where the shot was given, and fainting.
- The meningococcal vaccines are not required for K-12 school entry in South Carolina. They may be required for college entry depending on the school.

# COASTAL

PEDIATRIC ASSOCIATES



Elizabeth Santa Ana PhD 

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## MOTIVATIONAL INTERVIEWING FOR LIFESTYLE MEDICINE

November 21<sup>st</sup>, 7:30pm-8:30pm  
via webinar for Coastal Wavelengths

50% of project providers  
attended

**\*\*Recording available on Tidal  
Wave, under Coastal Clinical  
Pathways**

Coastal Wavelengths  
11.21.2022.mp4

# HPV vaccine: Same Way, Same Day App

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- Brief, interactive role-play simulation (30 minutes)
- Designed to enhance healthcare professionals' ability to introduce and address hesitant parents' concerns
- Developed by APA, AAP, and Kognito
- Free

## Key points:

Always offer same day, same way and bundle in middle of recommended vaccines. For example: "Today Kelly is due for 3 shots: the meningococcal, HPV, and Tdap vaccines. They're designed to protect her from infections that cause meningitis, some cancers, and diphtheria, tetanus, and whooping cough. So, unless you have any questions, . . . .

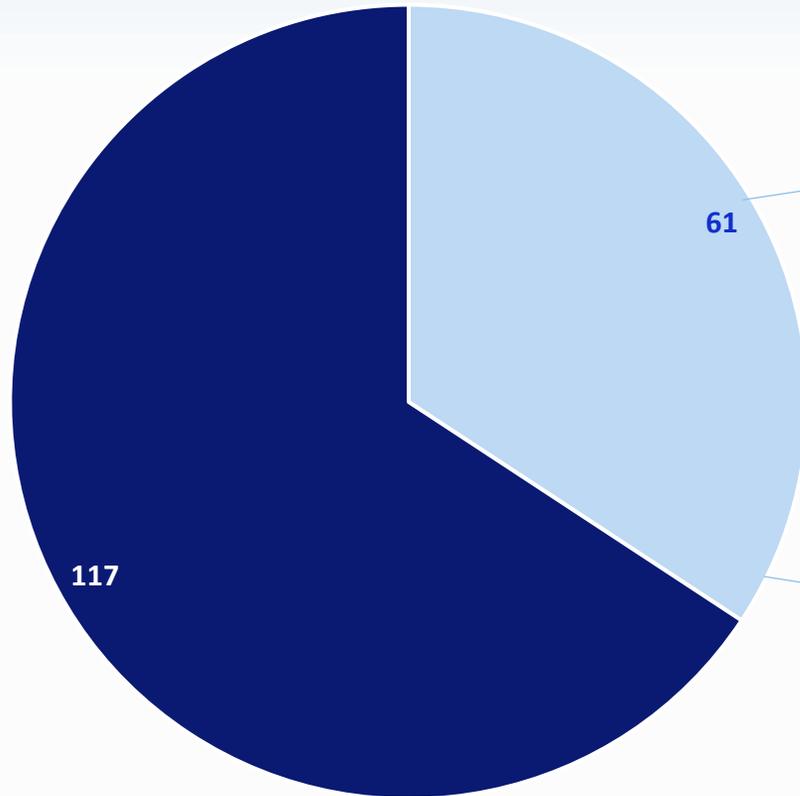
Assume a "Yes" from parent just like with other vaccines.

Use MI with hesitant families: **Ask** open-ended questions, **Acknowledge** parent concerns, **Affirm** their good intentions, **Ask** permission to provide information.



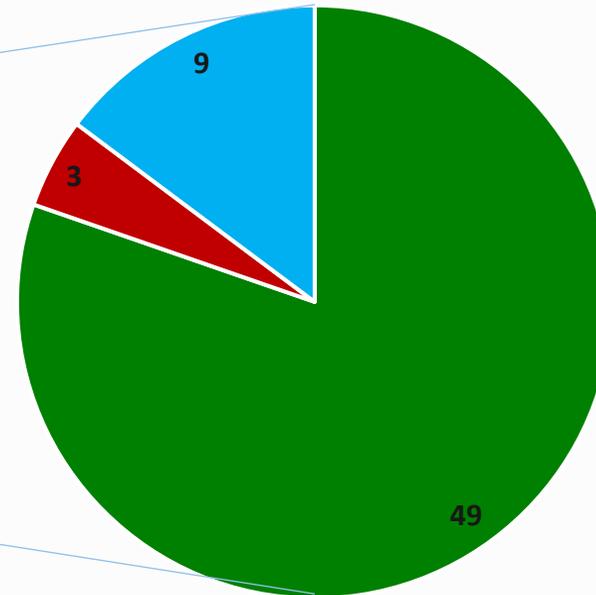
# Cycle 2 Data- Nov 2022

Pts age 24-29 mo seen in Nov by Participating Provider



Well Visit Other Visits

HepA Vaccine Rates



Received Havrix Alternate Schedule Received 2nd dose @ 18 mo WCC

3%  
from previous

7%  
overall

**\*\* ~95% OF PTS COMPLETED HEPA SERIES BY 2 YR WELL CHECK –met target**

178 total patients in age group  
61 eligible for HepA  
58 completed HepA series by 2 yr WCC

## HepA Vaccines Series Completion by 2 yr WCC (Participating Providers)



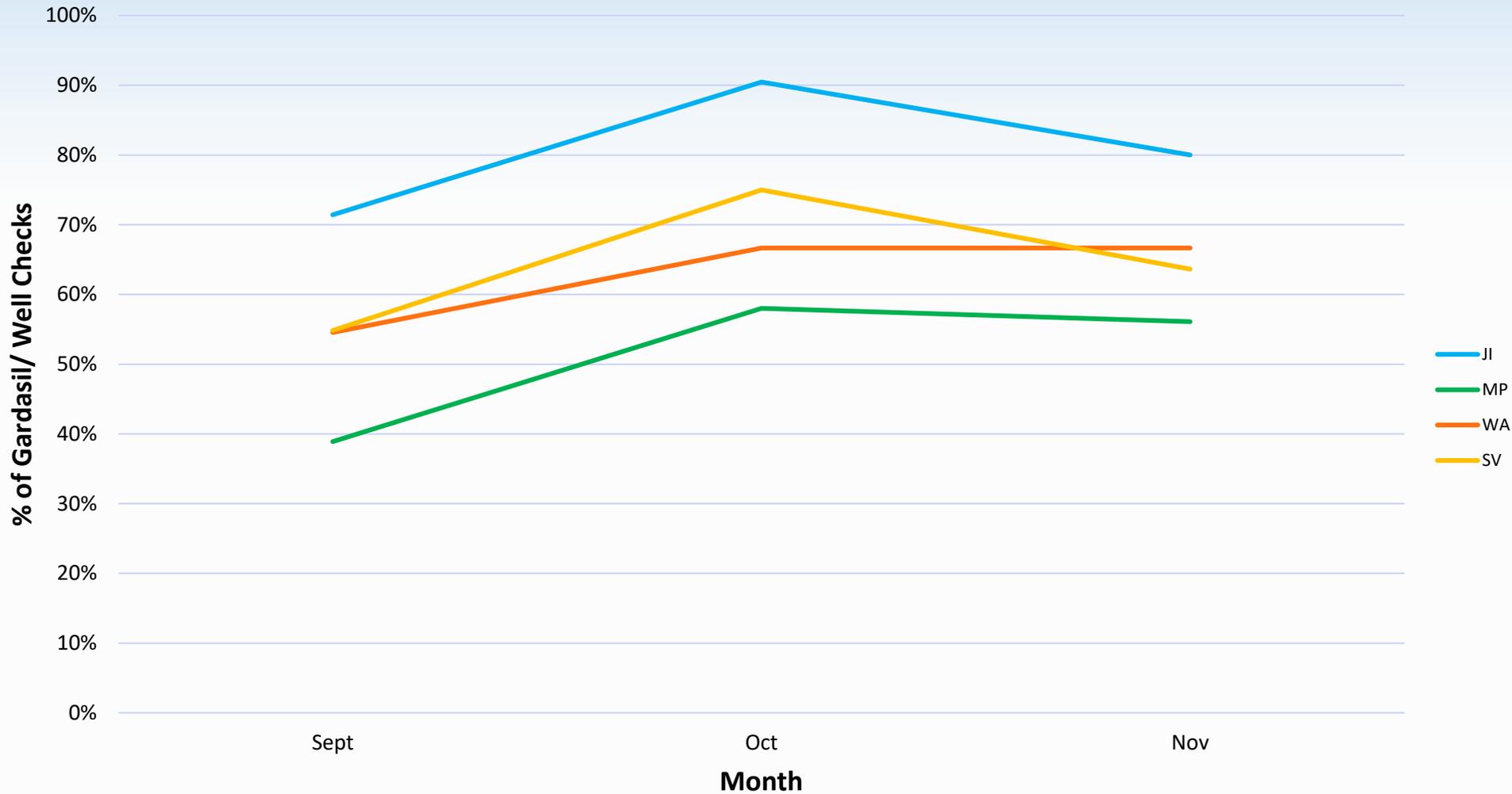
↓ 3%  
from previous

↑ 7%  
overall



**\*\* ~95% OF PTS COMPLETED HEPA SERIES BY 2 YR WELL CHECK –met target**

# HPV Vaccines at 11 yr WCC (All Providers)

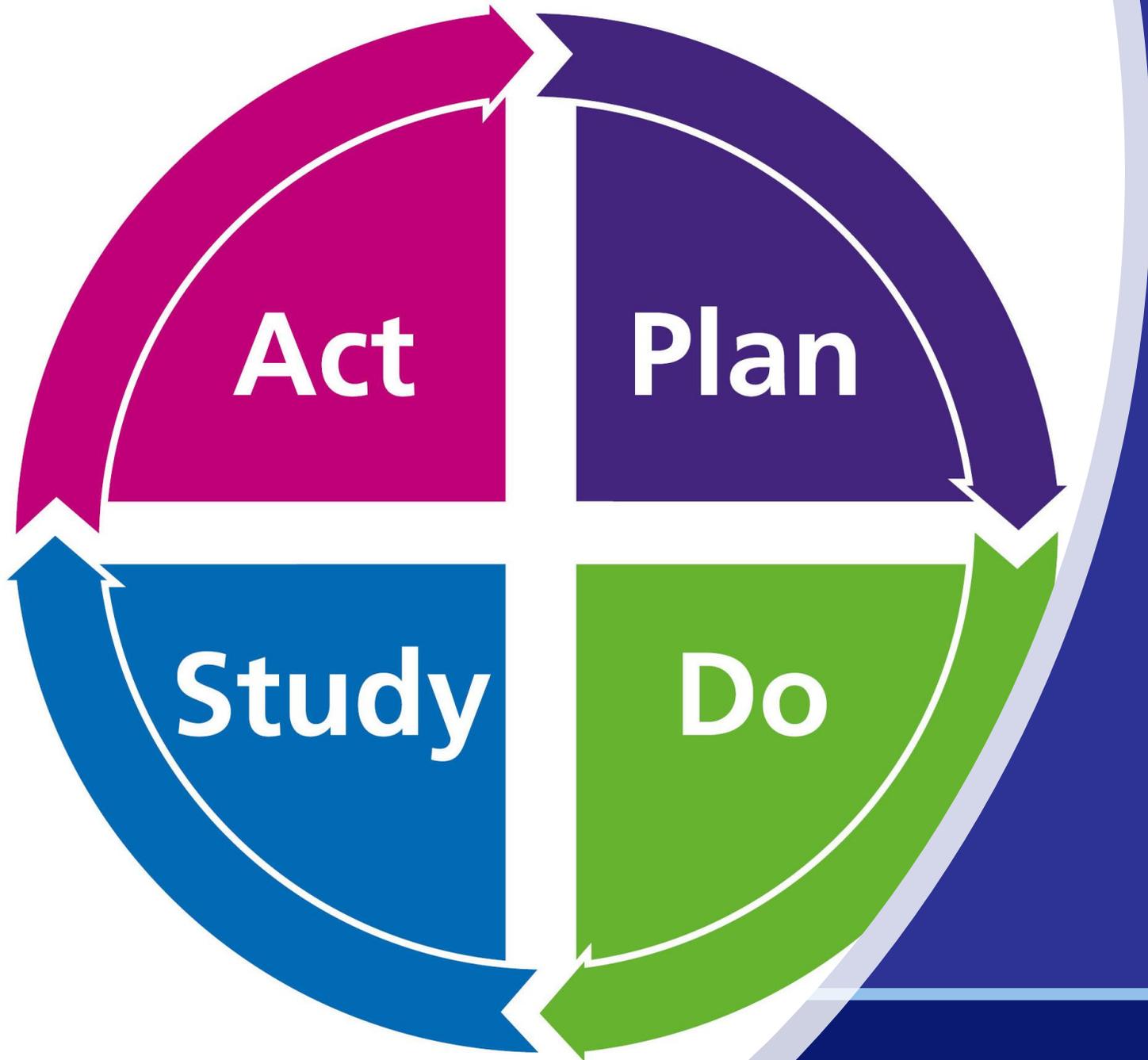


↓ 8%  
from previous

↑ 10%  
overall



**\*\* ~65% OF PTS RECEIVED 1<sup>ST</sup> DOSE OF HPV AT THEIR 11 YEAR WELL CHECK -10% below target**



Success stories  
and what's  
next?

# Long term PDSA Goals

- **Continue all efforts from this project** (Work with Immunization Champions (identify IC for JI and WA offices, order DHEC resources, attach preteen brochure to WCC packets, notate overdue vaccines in chart, enhance pre-visit prep, utilize Quality tab).
- **Continue provider and clinical staff education** (Motivational Interviewing training, Redbook webinars, Apps, Qtip resources).
- **Give DHEC vaccine form at every WCC** if patient UTD as a conversation starter
- Include recommended, overdue, declined vaccines in **Discussion** portion of note so families can view on portal after visit.



**\*\*Collect Cycle 3 Data** in 3 mos (end of Feb 2023)

# More Change Ideas

- Participate in EV3 Social Media Campaign- May 2023
- Move 2nd dose of HepA vaccine from 24 mo to 18 mo WCC
- Adding a Z28 under immunized Z code to Assessment and Problem list of note.



# SC DHEC Immunization Quality Improvement Project

- CDC's national quality improvement program for VFC providers.
- Project Duration (1 year): Jun 30, 2022- Jun 30, 2023
- Initial meetings: reviewed data from SIMON with assessments conducted on 24-35 month olds and 13-17 year olds.
- Each clinic set goals to improve immunization rates across the board and shared with their teams.
  - *Area for improvements: HepA and HPV rates*
- Meet with DHEC team for 2, 6, and 12 month f/u.
- Will meet again in June for progress update.

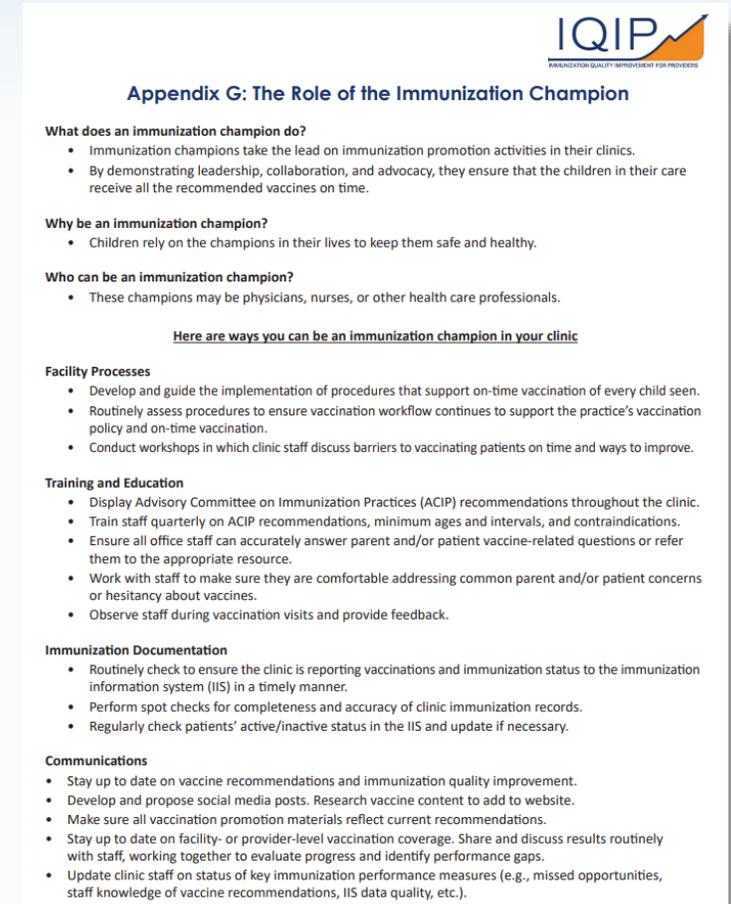
## Goals for 2022-23:

### 1. Give strong Vaccine Recommendations (including HPV vaccine)

- Staff to review educational materials & identify what would be most useful to implement in their practice.
- Clinical Staff complete CDC CME training

### 2. Strengthen Vaccine Communications

- Identify "Immunization Champion" for each clinic, review roles & responsibilities
- PCCs at each office are our Immunization Champions



# SC DHEC IQIP Resources

## Talking to Parents about HPV Vaccine



**HPV VACCINE**  
IS CANCER PREVENTION

Recommend HPV vaccination in the **same way** and on the **same day** as all adolescent vaccines. You can say, "Now that your son is 11, he is due for vaccinations today to help protect him from meningitis, HPV cancers, and whooping cough. Do you have any questions?" Taking the time to listen and understand parents' concerns can help you respond to their concerns more effectively.

<p><b>Why does my child need HPV vaccine?</b></p> <p>HPV vaccine is important because it prevents infections that can cause cancer. That's why we need to start the shot series today.</p>	<p><b>Some HPV infections can cause cancer—like cancer of the cervix or in the back of the throat—but we can protect your child from these cancers in the future by getting the first HPV shot today.</b></p>	<p><b>What diseases are caused by HPV?</b></p> <p>HPV is a very common infection in women and men that can cause cancer. Starting the vaccine series today will help protect your child from the cancers and diseases caused by HPV.</p>
<p><b>How do you know the vaccine works?</b></p> <p>Studies continue to prove HPV vaccination works extremely well, decreasing the number of infections and HPV precancers in young people since it has been available.</p>	<p><b>Is my child really at risk for HPV?</b></p> <p>Studies tell us that getting HPV vaccine doesn't make kids more likely to start having sex. I made sure my child (or grandchild, etc.) got HPV vaccine, and I recommend we give your child her first HPV shot today.</p>	<p><b>I'm worried my child will think that getting this vaccine makes it OK to have sex.</b></p> <p>Yes, HPV vaccination is very safe. Like any medication, vaccines can cause side effects, including pain, swelling, or redness where the shot was given. That's normal for HPV vaccine too and should go away in a day or two. Sometimes kids faint after they get shots and they could be injured if they fall from fainting. We'll have your child stay seated after the shot to help protect him/her.</p>
<p><b>Why do they need HPV vaccine at such a young age?</b></p> <p>Vaccines protect your child before they are exposed to a disease. That's why we give the HPV vaccine earlier rather than later, to protect them long before they are ever exposed. Also, if your child gets the shot now, they will only need two doses. If you wait until your child is older, they may end up needing three shots.</p>	<p><b>I'm worried about the safety of HPV vaccine. Do you think it's safe?</b></p> <p>I strongly recommend each of these vaccines and so do experts at the CDC and major medical organizations. School entry requirements are developed for public health and safety, but don't always reflect the most current medical recommendations for your child's health.</p>	<p><b>Can HPV vaccine cause infertility in my child?</b></p> <p>There is no evidence available to suggest that getting HPV vaccine will have an effect on future fertility. However, women who develop an HPV precancer or cancer could require treatment that would limit their ability to have children.</p>
<p><b>Why do boys need the HPV vaccine?</b></p> <p>HPV vaccination can help prevent future infections that can lead to cancers of the penis, anus, and back of the throat in men.</p>	<p>PN320195 CS289433B Last updated JULY 2019</p>	

For more information, visit [cdc.gov/vaccines/conversations](https://cdc.gov/vaccines/conversations)

## HPV Vaccine: Same Way, Same Day App



- Brief, interactive role-play simulation
- Designed to enhance healthcare professionals' ability to introduce HPV vaccine and address hesitant parents' concerns
- Developed by Academic Pediatric Association, American Academy of Pediatrics, and Kognito
- Free
- Available for mobile devices:
  - From the Google Play Store [https://play.google.com/store/apps/details?id=com.kognito.hpv\\_immunization](https://play.google.com/store/apps/details?id=com.kognito.hpv_immunization)
  - From the Apple iTunes Store <https://itunes.apple.com/us/app/hpv-vaccine-same-way-same-day/id1356847181?mt=8>



## Immunization Education & Training

### How Nurses and Medical Assistants Can Foster a Culture of Immunization in the Practice

#### At a Glance

How Nurses and Medical Assistants Can Foster a Culture of Immunization in the Practice is presented as a **web-on-demand video** released on December 4, 2019. Continuing education is available until December 4, 2023.

## Talking to Parents About Infant Vaccines



Parents consider you their most trusted source of information when it comes to vaccines. When talking to parents about vaccines, make a strong, effective recommendation and allow time for parents to ask questions. Hearing your answers to their questions can help parents feel more confident vaccinating their child according to CDC's recommended immunization schedule.

<p><b>Are vaccines safe for my child?</b></p> <p>Yes. Millions of children safely receive vaccines each year. The U.S. has a long-standing vaccine safety system that ensures vaccines are as safe as possible.</p>	<p><b>Is there a link between vaccines and autism?</b></p> <p>No. Many people want answers about the causes of autism — including me. But well designed and conducted studies that I can share with you show that MMR vaccine is not a cause of autism.</p>
<p><b>Can vaccines overload my baby's immune system?</b></p> <p>No. Vaccines help babies fight infections by introducing a small number of antigens into their bodies. Antigens are parts of germs that cause babies' immune systems to go to work. Vaccines contain only a tiny fraction of the antigens that babies encounter in their environment every day.</p>	<p><b>Why do vaccines start so early?</b></p> <p>We vaccinate children early because they are susceptible to diseases at a young age. Young children also have the highest risks of complications that could lead to hospitalization or death.</p>
<p><b>Don't infants have natural immunity? Isn't natural immunity better than the kind from vaccines?</b></p> <p>Babies may get some temporary immunity from mom during pregnancy, but these antibodies do not last long, leaving your baby vulnerable to disease if you don't vaccinate him/her.</p>	<p><b>What do you think of delaying some vaccines or following a non-standard schedule?</b></p> <p>There is no data to support that spacing out vaccines offers safe or effective protection from these diseases. Any time you delay a vaccine, you leave your baby vulnerable to disease. It's really best to stay on schedule.</p>
<p><b>Do I have to vaccinate my baby on schedule if I'm breastfeeding him?</b></p> <p>Yes. Breast milk provides important protection from some infections as your baby's immune system is developing, but breast milk does not protect children against all diseases.</p>	<p><b>Why are so many doses needed for each vaccine?</b></p> <p>Getting every dose of each vaccine provides your child with the best protection. Depending on the vaccine, he/she may need more than one dose to build high enough immunity to prevent disease or to boost immunity that fades over time.</p>
<p><b>My child is sick right now. Is it okay for her to still get shots?</b></p> <p>Tell me what's going on. Usually, children can get vaccinated even if they have a mild illness like a cold, earache, mild fever, or diarrhea.</p>	<p><b>What are the side effects of the vaccines?</b></p> <p>Most vaccine side effects are very minor, like soreness where the shot was given, fussiness, or a low-grade fever. These typically only last a couple of days and are treatable. Serious reactions are very rare. If your child experiences any reactions that concern you, call us.</p>

For more information, visit [cdc.gov/vaccines/conversations](https://cdc.gov/vaccines/conversations)

Last updated JULY 2019



# My Favorite Resources

- **CDC** Talking to Parents about Vaccines:  
[www.cdc.gov/vaccines/conversations](https://www.cdc.gov/vaccines/conversations)
- **CHOP Vaccine Education Center**  
<https://www.chop.edu/centers-programs/vaccine-education-center>
- **Immunization Action Coalition**  
<https://www.immunize.org/>
- AAP- <https://www.healthychildren.org/>

# Additional Resources

<https://www.cdc.gov/vaccines/hcp/patient-ed/conversations/downloads/not-vacc-risks-color-office.pdf>

## If You Choose Not to Vaccinate Your Child, Understand the Risks and Responsibilities.

information for parents

Reviewed March 2012

If you choose to delay some vaccines or reject some vaccines entirely, there can be risks. Please follow these steps to protect your child, your family, and others.

### With the decision to delay or reject vaccines comes an important responsibility that could save your child's life, or the life of someone else.

Any time that your child is ill and you:

- call 911;
- ride in an ambulance;
- visit a hospital emergency room; or
- visit your child's doctor or any clinic

you must tell the medical staff that your child has not received all the vaccines recommended for his or her age.

Keep a vaccination record easily accessible so that you can report exactly which vaccines your child has received, even when you are under stress.

### Telling health care professionals your child's vaccination status is essential for two reasons:

- When your child is being evaluated, the doctor will need to consider the possibility that your child has a vaccine-preventable disease. Many of these diseases are now uncommon, but they still occur.
- The people who help your child can take precautions, such as isolating your child, so that the disease does not spread to others. One group at high risk for contracting disease is infants who are too young to be fully vaccinated. For example, the measles vaccine is not usually recommended for babies younger than 12 months. Very young babies who get measles are likely to be seriously ill, often requiring hospitalization. Other people at high risk for contracting disease are those with weaker immune systems, such as some people with cancer and transplant recipients.

### Before an outbreak of a vaccine-preventable disease occurs in your community:

- Talk to your child's doctor or nurse to be sure your child's medical record is up to date regarding vaccination status. Ask for a copy of the updated record.
- Inform your child's school, childcare facility, and other caregivers about your child's vaccination status. -
- Be aware that your child can catch diseases from people who don't have any symptoms. For example, Hib meningitis can be spread from people who have the bacteria in their body but are not ill. You can't tell who is contagious.



### When there is vaccine-preventable disease in your community:

- It may not be too late to get protection by getting vaccinated. Ask your child's doctor.
- If there are cases (or, in some circumstances, a single case) of a vaccine-preventable disease in your community, you may be asked to take your child out of school, childcare, or organized activities (for example, playgroups or sports).
- Your school, childcare facility, or other institution will tell you when it is safe for an unvaccinated child to return. Be prepared to keep your child home for several days up to several weeks.
- Learn about the disease and how it is spread. It may not be possible to avoid exposure. For example, measles is so contagious that hours after an infected person has left the room, an unvaccinated person can get measles just by entering that room. -
- Each disease is different, and the time between when your child might have been exposed to a disease and when he or she may get sick will vary. Talk with your child's doctor or the health department to get their guidelines for determining when your child is no longer at risk of coming down with the disease.

### If you know your child is exposed to a vaccine-preventable disease for which he or she has not been vaccinated:

- Learn the early signs and symptoms of the disease.
- Seek immediate medical help if your child or any family members develop early signs or symptoms of the disease. -

**IMPORTANT:** Notify the doctor's office, urgent care facility, ambulance personnel, or emergency room staff that your child has not been fully vaccinated before medical staff have contact with your child or your family members. They need to know that your child may have a vaccine-preventable disease so that they can treat your child correctly as quickly as possible. Medical staff also can take simple precautions to prevent diseases from spreading to others if they know ahead of time that their patient may have a contagious disease.

- Follow recommendations to isolate your child from others, including family members, and especially infants and people with weakened immune systems. Most vaccine-preventable diseases can be very dangerous to infants who are too young to be fully vaccinated, or children who are not vaccinated due to certain medical conditions.
- Be aware that for some vaccine-preventable diseases, there are medicines to treat infected people and medicines to keep people they come in contact with from getting the disease.
- Ask your health care professional about other ways to protect your family members and anyone else who may come into contact with your child.
- Your family may be contacted by the state or local health department who track infectious disease outbreaks in the community. -

### If you travel with your child:

- Review the CDC travelers' information website (<http://www.cdc.gov/travel>) before traveling to learn about possible disease risks and vaccines that will protect your family. Diseases that vaccines prevent remain common throughout the world, including Europe. -
- Don't spread disease to others. If an unimmunized person develops a vaccine-preventable disease while traveling, to prevent transmission to others, he or she should not travel by a plane, train, or bus until a doctor determines the person is no longer contagious.

## Be aware.

- Any vaccine-preventable disease can strike at any time in the U.S. because all of these diseases still circulate either in the U.S. or elsewhere in the world.
- Sometimes vaccine-preventable diseases cause outbreaks, that is, clusters of cases in a given area.
- Some of the vaccine-preventable diseases that still circulate in the U.S. include whooping cough, chickenpox, Hib (a cause of meningitis), and influenza. These diseases, as well as the other vaccine-preventable diseases, can range from mild to severe and life-threatening. In most cases, there is no way to know beforehand if a child will get a mild or serious case.
- For some diseases, one case is enough to cause concern in a community. An example is measles, which is one of the most contagious diseases known. This disease spreads quickly among people who are not immune.



# Talking to Parents about HPV Vaccine



**HPV VACCINE**  
IS CANCER PREVENTION

Recommend HPV vaccination in the **same way** and on the **same day** as all adolescent vaccines. You can say, "Now that your son is 11, he is due for vaccinations today to help protect him from meningitis, HPV cancers, and whooping cough. Do you have any questions?" Taking the time to listen and understand parents' concerns can help you respond to their concerns more effectively.

**Why does my child need HPV vaccine?**

HPV vaccine is important because it prevents infections that can cause cancer. That's why we need to start the shot series today.

**How do you know the vaccine works?**

Studies continue to prove HPV vaccination works extremely well, decreasing the number of infections and HPV precancers in young people since it has been available.

**Why do they need HPV vaccine at such a young age?**

Vaccines protect your child before they are exposed to a disease. That's why we give the HPV vaccine earlier rather than later, to protect them long before they are ever exposed. Also, if your child gets the shot now, they will only need two doses. If you wait until your child is older, they may end up needing three shots.

**Why do boys need the HPV vaccine?**

HPV vaccination can help prevent future infections that can lead to cancers of the penis, anus, and back of the throat in men.

**Are all of these vaccines actually required?**

I strongly recommend each of these vaccines and so do experts at the CDC and major medical organizations. School entry requirements are developed for public health and safety, but don't always reflect the most current medical recommendations for your child's health.

Some HPV infections can cause cancer—like cancer of the cervix or in the back of the throat—but we can protect your child from these cancers in the future by getting the first HPV shot today.

**What diseases are caused by HPV?**

HPV is a very common infection in women and men that can cause cancer. Starting the vaccine series today will help protect your child from the cancers and diseases caused by HPV.

**Is my child really at risk for HPV?**

Studies tell us that getting HPV vaccine doesn't make kids more likely to start having sex. I made sure my child (or grandchild, etc.) got HPV vaccine, and I recommend we give your child her first HPV shot today.

**I'm worried my child will think that getting this vaccine makes it OK to have sex.**

Yes, HPV vaccination is very safe. Like any medication, vaccines can cause side effects, including pain, swelling, or redness where the shot was given. That's normal for HPV vaccine too and should go away in a day or two. Sometimes kids faint after they get shots and they could be injured if they fall from fainting. We'll have your child stay seated after the shot to help protect him/her.

**I'm worried about the safety of HPV vaccine. Do you think it's safe?**

There is no evidence available to suggest that getting HPV vaccine will have an effect on future fertility. However, women who develop an HPV precancer or cancer could require treatment that would limit their ability to have children.

**Can HPV vaccine cause infertility in my child?**

For more information, visit [cdc.gov/vaccines/conversations](https://www.cdc.gov/vaccines/conversations)

PN300195  
CS269453B  
Last updated JULY 2019

# HPV vaccination is the best protection against certain cancers caused by HPV.

Estimated U.S. Cases Every Year<sup>1,2</sup>

## Cervical Cancer Just the tip of the iceberg.

Cervical cancer is the only type of cancer caused by HPV that has a recommended screening test to detect it at an early stage.

11,000

## Cervical Precancers

While screening can detect precancers before they turn into cancer, treatment for these precancers can lead to problems during pregnancy.

196,000

## Other Cancers Caused by HPV

There are no recommended screening tests for these cancers, so they may not be detected until they cause serious health problems.

14,000

Back of the throat

6,500

Anus

2,800

Vulva

900

Penis

700

Vagina

HPV vaccination at ages 11-12 could

**PREVENT OVER 90%**

of these cancers.

Sources:  
1. <https://www.cdc.gov/cancer/hpv/statistics/cases.htm>  
2. <https://www.cdc.gov/mmwr/volumes/68/wr/mm6815a1.htm>

For additional information, visit:  
[www.cdc.gov/HPV](https://www.cdc.gov/HPV)



**HPV VACCINE**  
IS CANCER PREVENTION

Last updated AUGUST 2021  
LC082421

# After the Shots...

Your child may need extra love and care after getting vaccinated. Some vaccinations that protect children from serious diseases also can cause discomfort for a while. Here are answers to questions many parents have after their children have been vaccinated. If this sheet doesn't answer your questions, call your healthcare provider.

**Vaccinations may hurt a little... but disease can hurt a lot!**

Call your healthcare provider right away if you answer "yes" to any of the following questions:

- Does your child have a temperature that your healthcare provider has told you to be concerned about?
- Is your child pale or limp?
- Has your child been crying for more than 3 hours and just won't quit?
- Is your child's body shaking, twitching, or jerking?
- Is your child very noticeably less active or responsive?

► Please see page 2 for information on the proper amount of medicine to give your child to reduce pain or fever.



## What to do if your child has discomfort

### I think my child has a fever. What should I do?

Check your child's temperature to find out if there is a fever. An easy way to do this is by taking a temperature in the armpit using an electronic thermometer (or by using the method of temperature-taking your healthcare provider recommends). If your child has a temperature that your healthcare provider has told you to be concerned about or if you have questions, call your healthcare provider.

### Here are some things you can do to help reduce fever:

- Give your child plenty to drink.
- Dress your child lightly. Do not cover or wrap your child tightly.
- Give your child a fever- or pain-reducing medicine such as acetaminophen (e.g., Tylenol) or ibuprofen (e.g., Advil, Motrin). The dose you give your child should be based on your child's weight and your healthcare provider's instructions. See the dose chart on page 2. *Do not give aspirin.* Recheck your child's temperature after 1 hour. Call your healthcare provider if you have questions.

### My child has been fussy since getting vaccinated. What should I do?

After vaccination, children may be fussy because of pain or fever. To reduce discomfort, you may want to give your child a medicine such as acetaminophen or ibuprofen. See the dose chart on page 2. *Do not give aspirin.*

If your child is fussy for more than 24 hours, call your healthcare provider.

### My child's leg or arm is swollen, hot, and red. What should I do?

- Apply a clean, cool, wet washcloth over the sore area for comfort.
- For pain, give a medicine such as acetaminophen or ibuprofen. See the dose chart on page 2. *Do not give aspirin.*
- If the redness or tenderness increases after 24 hours, call your healthcare provider.

### My child seems really sick. Should I call my healthcare provider?

If you are worried **at all** about how your child looks or feels, call your healthcare provider!

**HEALTHCARE PROVIDER: PLEASE FILL IN THE INFORMATION BELOW.**

If your child's temperature is \_\_\_\_\_°F or \_\_\_\_\_°C or higher, or if you have questions, call your healthcare provider.

Healthcare provider phone number: \_\_\_\_\_

Technical content reviewed by the Centers for Disease Control and Prevention

## Medicines and Dosages to Reduce Pain and Fever

Choose the proper medicine, and measure the dose accurately.

1. Ask your healthcare provider or pharmacist which medicine is best for your child.
2. Give the dose based on your child's weight. If you don't know your child's weight, give the dose based on your child's age. Do not give more medicine than is recommended.
3. If you have questions about dosage amounts or any other concerns, call your healthcare provider.
4. Always use a proper measuring device. For example:
  - When giving acetaminophen liquid (e.g., Tylenol), use the device enclosed in the package. If you misplace the device, consult your healthcare provider or pharmacist for advice. Kitchen spoons are not accurate measures.
  - When giving ibuprofen liquid (e.g., Advil, Motrin), use the device enclosed in the package. Never use a kitchen spoon!

### Take these two steps to avoid causing a serious medication overdose in your child.

1. Don't give your child a larger amount of acetaminophen (e.g., Tylenol) or ibuprofen (e.g., Motrin, Advil) than is shown in the table below. Too much of any of these medicines can be extremely dangerous.
2. When you give your child acetaminophen or ibuprofen, don't also give them over-the-counter cough or cold medicines. This can cause a medication overdose because cough and cold medicines often contain acetaminophen or ibuprofen. In fact, to be safe, don't ever give over-the-counter cough and cold medicines to your child unless you talk to your child's healthcare provider first.

### Acetaminophen (Tylenol or another brand): How much to give?

Give every 4 to 6 hours, as needed, no more than 5 times in 24 hours (unless directed to do otherwise by your healthcare provider).

child's weight	child's age	OLD FORMULATIONS infants' drops 80 mg in each 0.8 mL or in each 1.0 mL	Infants' New formulation or children's liquid 160 mg in each 5 mL (1 tsp) <small>Kitchen spoons are not accurate measures.</small>	children's chewables 80 mg in each tab	junior strength 160 mg in each tab
6–11 lbs (2.7–5 kg)	0–3 mos		Advised dose* _____		
12–17 lbs (5.5–7.7 kg)	4–11 mos	No longer available for purchase in the U.S. Please discard old product.	½ teaspoon or 2.5 mL		
18–23 lbs (8.2–10.5 kg)	12–23 mos		¾ teaspoon or 3.75 mL		
24–35 lbs (10.9–15.9 kg)	2–3 yrs		1 teaspoon or 5 mL	2 tablets	
36–47 lbs (16.4–21.4 kg)	4–5 yrs		1½ teaspoon or 7.5 mL	3 tablets	
48–59 lbs (21.8–26.8 kg)	6–8 yrs		2 teaspoons or 10 mL	4 tablets	2 tablets
60–71 lbs (27.3–32.3 kg)	9–10 yrs		2½ teaspoons or 12.5 mL	5 tablets	2½ tablets
72–95 lbs (32.7–43.2 kg)	11 yrs		3 teaspoons or 15 mL	6 tablets	3 tablets

### Ibuprofen (Advil, Motrin, or another brand): How much to give?

Give every 6 to 8 hours, as needed, no more than 4 times in 24 hours (unless directed to do otherwise by your healthcare provider).

child's weight	child's age	infants' drops 50 mg in each 1.25 mL	children's liquid 100 mg in each 5 mL (1 tsp) <small>Kitchen spoons are not accurate measures.</small>	OLD FORMULATION children's chewables 50 mg in each tab	children's chewables or junior tablets 100 mg in each tab
less than 11 lbs (5 kg)	0–5 mos				
12–17 lbs (5.5–7.7 kg)	6–11 mos	1.25 mL	Advised dose* _____	No longer available for purchase in the U.S. Please discard old product.	
18–23 lbs (8.2–10.5 kg)	12–23 mos	1.875 mL	Advised dose* _____		
24–35 lbs (10.9–15.9 kg)	2–3 yrs		1 teaspoon or 5 mL		1 tablet
36–47 lbs (16.4–21.4 kg)	4–5 yrs		1½ teaspoon or 7.5 mL		1½ tablets
48–59 lbs (21.8–26.8 kg)	6–8 yrs		2 teaspoons or 10 mL		2 tablets
60–71 lbs (27.3–32.3 kg)	9–10 yrs		2½ teaspoons or 12.5 mL	2½ tablets	
72–95 lbs (32.7–43.2 kg)	11 yrs		3 teaspoons or 15 mL	3 tablets	

**walk WITH a DOC**  
educate. exercise. empower.

**By The Numbers!**



Total Chapters  
**600+ Chapters**

United States  
**47 States**

International  
**44 Countries**

Walk chapters walking weekly, biweekly, or monthly





THANK YOU