



Washington  
Child Health Improvement Partnership

Cohort 4 Kick-Off Meeting  
April 27, 2022

# Disclosures

- ▶ All relevant financial relationships have been reviewed and mitigated to ascertain that the content is educational, evidence-based insofar as possible, and not promotional in nature.
- ▶ This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the providership of Seattle Children's Hospital. Seattle Children's Hospital is accredited by the ACCME to provide continuing medical education for physicians.

# Learning Objectives

- ▶ Apply **QI Fundamentals** to improve vaccination rates in your practice
- ▶ Develop an **Improvement Plan** for your practice
- ▶ Develop a **Leadership Plan** for your practice

# Agenda

- ▶ Welcome and Orientation (7:00-7:30)
- ▶ Vaccination in King County & WA State (7:30-7:45)
- ▶ Importance of Vaccine Reminder-Recall (7:45-8:00)
- ▶ QI Fundamentals (8:00-8:30)
  - ▶ *Break (8:30-8:40)*
- ▶ Breakouts: Barriers and Interventions (8:40-9:55)
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- ▶ Report Outs (10:05-10:50)
- ▶ Leading Change in Your Practice (10:50-11:20)
- ▶ Breakouts: Leading Change in Your Practice (11:20-11:45)
- ▶ Logistics and Next Steps (11:45-12:00)

# Orientation



# What is WA-CHIP?

- ▶ Washington Child Health Improvement Partnership
- ▶ A partnership between



to improve childhood and adolescent vaccination rates  
in Washington State



# What is WA-CHIP?

- ▶ 3 cohorts between 2019-2021
  - ▶ 16 practices from King County, 7 practices from WA State counties
- ▶ **WA-CHIP has made an impact!**
- ▶ Cohort 2: 39% reduction in missed opportunities
- ▶ Cohort 3:
  - ▶ 7% reduction in missed opportunities
  - ▶ 97% of participants reported *“The progress we made will lead to lasting improvement in patient care at my clinic.”*
  - ▶ 90% of participants reported *“This project will directly improve the care of my own patients.”*

# WA-CHIP Team

## ▶ Public Health Seattle King County

- Elisabeth Beaber, PhD, MPH
- Anne Chu

## ▶ Washington State Dept of Health

- Chrystal Averette, MPH

## ▶ Washington Chapter of the American Academy of Pediatrics

- Sarah Rafton, MSW
- Sherri Zorn, MD
- Tatiana Sarkhosh, MPH
- Ariana Salaiz

## ▶ Seattle Children's

- Annika Hofstetter, MD, PhD, MPH
- Doug Opel, MD, MPH
- Joel Tieder, MD, MPH
- Jimmy Beck, MD
- Mersine Bryan, MD, MPH
- Cheery Yip, MS, PMP
- Heather Spielvogle, PhD
- Nicolas Dundas, MPH





# Meet Participants and Practices

- ▶ Introduce yourself
- ▶ Describe your practice (e.g., location, type of practice)

# King County Participants and Practices

| Practice Name              | Leads                          |
|----------------------------|--------------------------------|
| Mercer Island Pediatrics   | Elizabeth Evans                |
| Unibe Care Family Practice | Thuy Vu, Celeste Rodriguez     |
| Stepping Stone Pediatrics  | Kevy Wijaya, Tim Ahn           |
| UW Northgate               | Kimberly Collins, Dylan Pearce |

# WA State Participants and Practices

| Practice Name          | Leads                            |
|------------------------|----------------------------------|
| Mt. Spokane Pediatrics | Jeff Schilt, Jacqueline Williams |
| Palouse Pediatrics     | Jonathan Lee                     |
| Pediatrics For You     | Shakti Matta, Tara               |
| South Sound Pediatrics | Jennifer Richards                |
| Confluence Health      | Doug Eisert, Jana Roy            |

# Virtual Binder Content

- ▶ Contact sheet and logistics
- ▶ Practice data: process map, office inventory, coverage report, missed opportunities
- ▶ Kick-off slides
- ▶ Key driver diagram
- ▶ Additional QI resources
- ▶ Resources to implement WA-CHIP interventions

# Goals

- ▶ The **Global Aim** of our WA-CHIP learning collaborative is to increase childhood and adolescent vaccination rates at participating practices in King County & WA State.
- ▶ The **Specific Aim** of our WA-CHIP learning collaborative is that by January 2023 participating practices will decrease their missed opportunities for administering vaccines to 4-6 and 11-17 year-olds by 20% compared to their baseline rate.
  - ▶ Missed opportunity = failure to vaccinate a patient who is eligible for vaccination at an office visit.

# Learning Collaborative Design

- ▶ Learning collaborative cohort design
  - ▶ Monthly cohort or practice-team check-ins
- ▶ Roles of SCH, PHSKC, DOH, and WCAAP
  - ▶ Coaching model



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# Need to Optimize Childhood and Adolescent Vaccination in King County and Washington State





# Childhood Vaccination Guidelines

## Advisory Committee on Immunization Practices (CDC)

- ▶ **Recommended vaccine doses for children 4-6 years-old**
  - ▶ 5<sup>th</sup> DTaP, 4<sup>th</sup> IPV, 2<sup>nd</sup> MMR, 2<sup>nd</sup> varicella

## WA State School Requirements

- ▶ **Children  $\geq 4$  years as of 9/1/2022 and entering Preschool, Childcare, Transitional Kindergarten, or Kindergarten must have:**
  - ▶ 5 Dtap, 4 IPV, 2 MMR, 2 varicella, 3 Hep B doses
  - ▶ If they turn 4 years during school year (after 9/1/2022), they must meet guidelines by next school year (9/1/2023)

# Adolescent Vaccination Guidelines

## Advisory Committee on Immunization Practices (CDC)

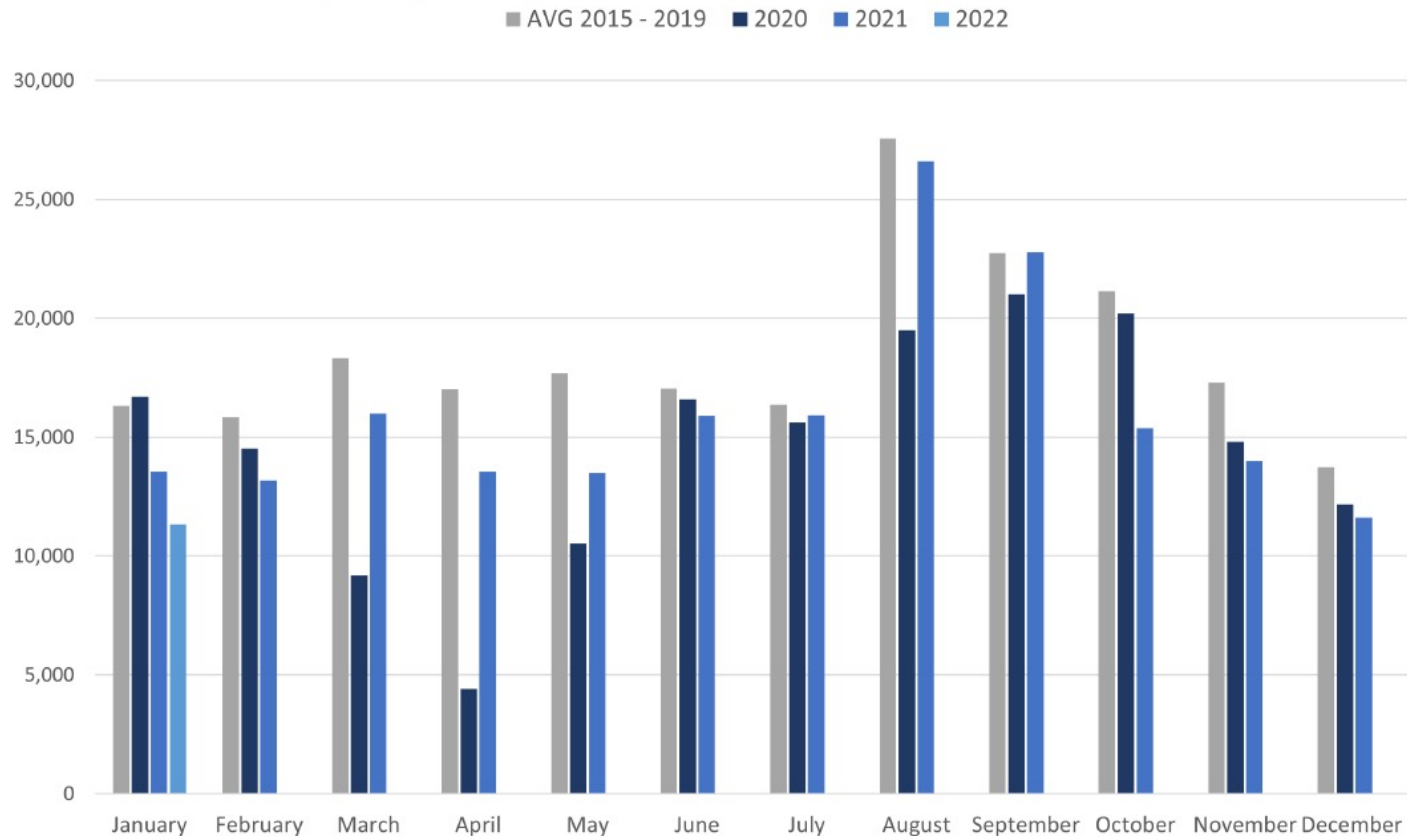
- ▶ Recommended doses for children 11-12 years-old:
  - ▶ Tdap (1), meningococcal (1), and HPV
    - ▶ HPV: 2 doses if start <15<sup>th</sup> birthday
    - ▶ HPV: 3 doses if start on/after 15<sup>th</sup> birthday or if immunocompromised

## WA State School Requirements

- ▶ Tdap at age  $\geq 10$  years for entry into 7<sup>th</sup> grade
- ▶ Meningococcal and HPV are not required in WA State

# COVID-19 Impact on Vaccine Delivery: 4-6 year-olds

Monthly Vaccines\* Administered to Children 4 - 6 years old in Washington State Comparing Average Number in 2015-2019 with 2020, 2021, 2022



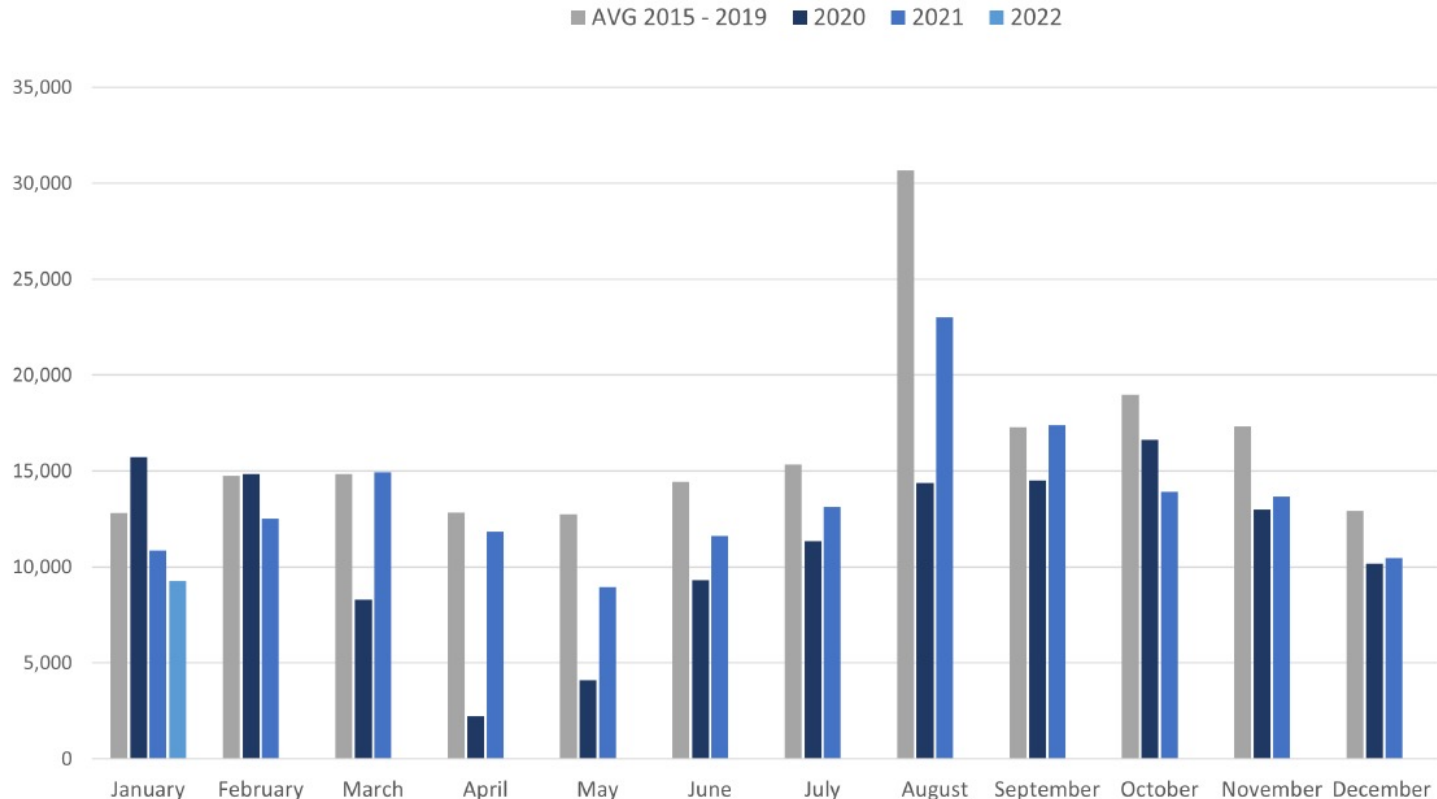
30.6% decrease in #  
doses administered  
in Jan 2022 vs Jan  
2015-2019

Data source: WA State Immunization Information System; all vaccines reported as of 2/14/2022

\*Does not include Influenza vaccine doses administered

# COVID-19 Impact on Vaccine Delivery: 13-17 year-olds

Monthly Vaccines\* Administered to Teens 13 - 17 years old in Washington State Comparing Average Number in 2015-2019 with 2020, 2021, 2022

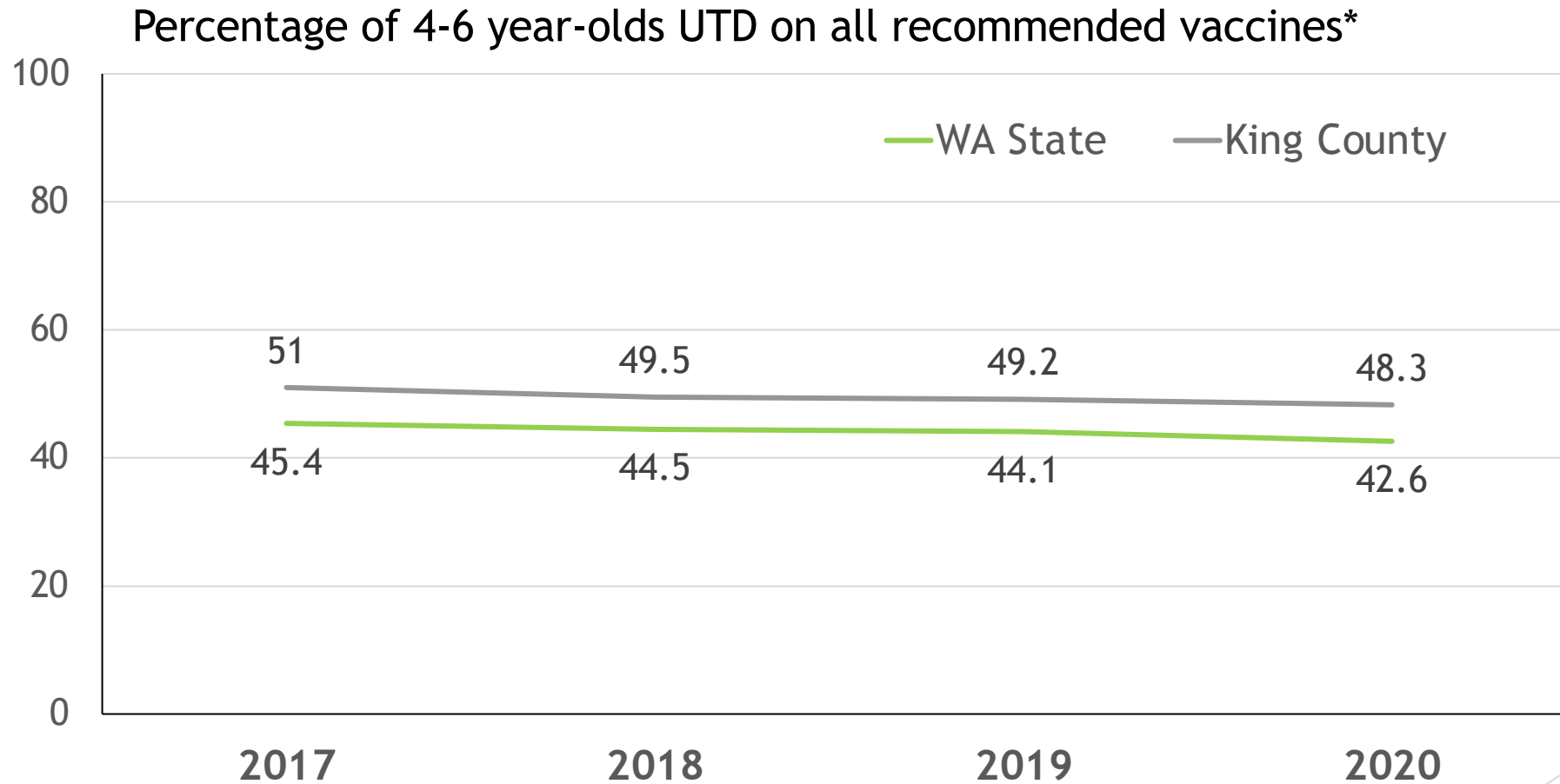


**27.6% decrease in #  
doses administered  
in Jan 2022 vs Jan  
2015-2019**

Data source: WA State Immunization Information System; all vaccines reported as of 2/14/2022

\*Does not include Influenza and COVID-19 vaccine doses administered

# Childhood Vaccination Rates

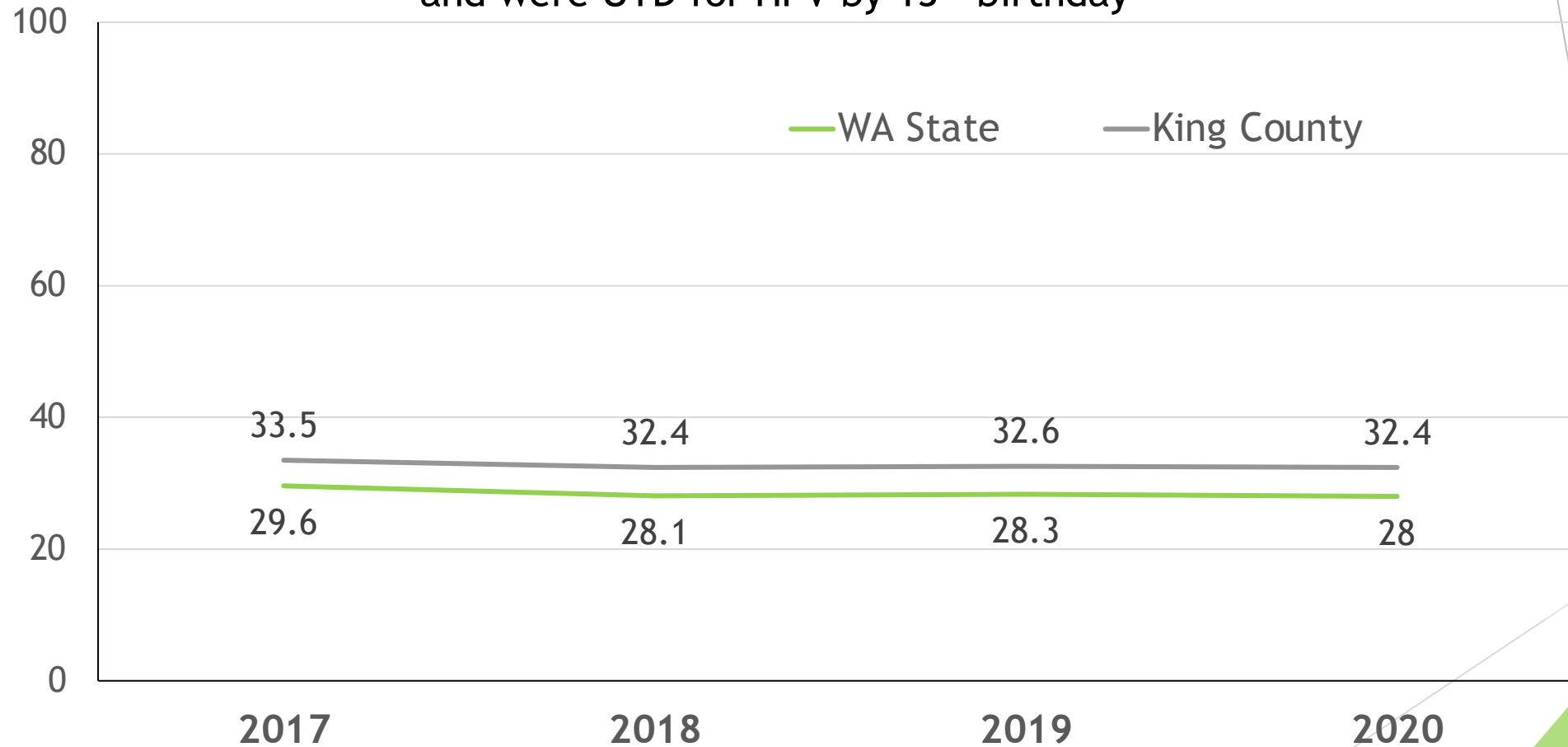


\* 5 DTap, 4 Hib, 4 IPV, 3 HepB, 2 MMR, 2 varicella, 2 Hep A, 4 PCV

Source: Washington State Immunization Information System

# Adolescent Vaccination Rates

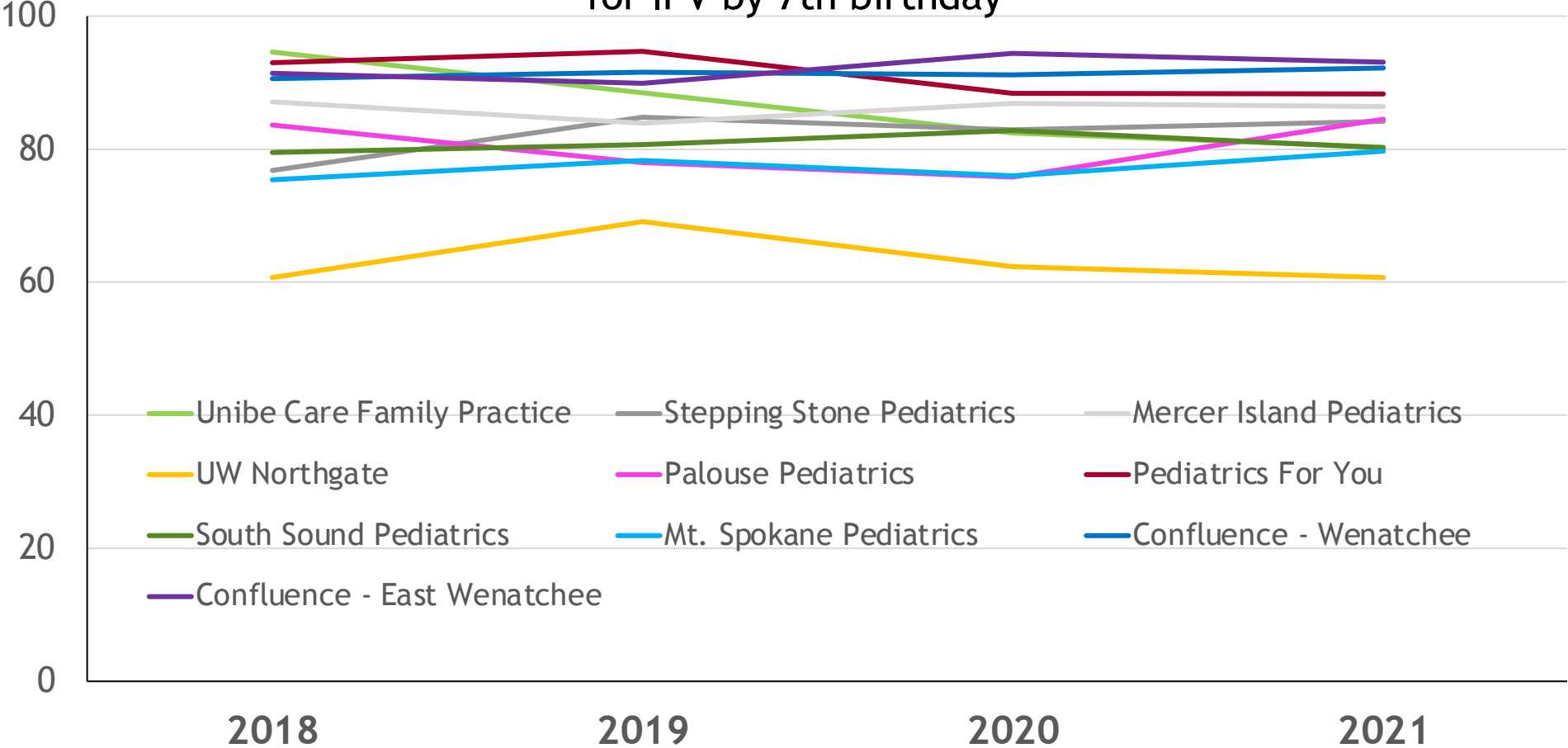
Percentage of 13 year-olds who received  $\geq 1$  Tdap,  $\geq 1$  MCV, and were UTD for HPV by 13<sup>th</sup> birthday



Source: Washington State Immunization Information System

# Childhood Vaccination Rates: Cohort 4 Clinics

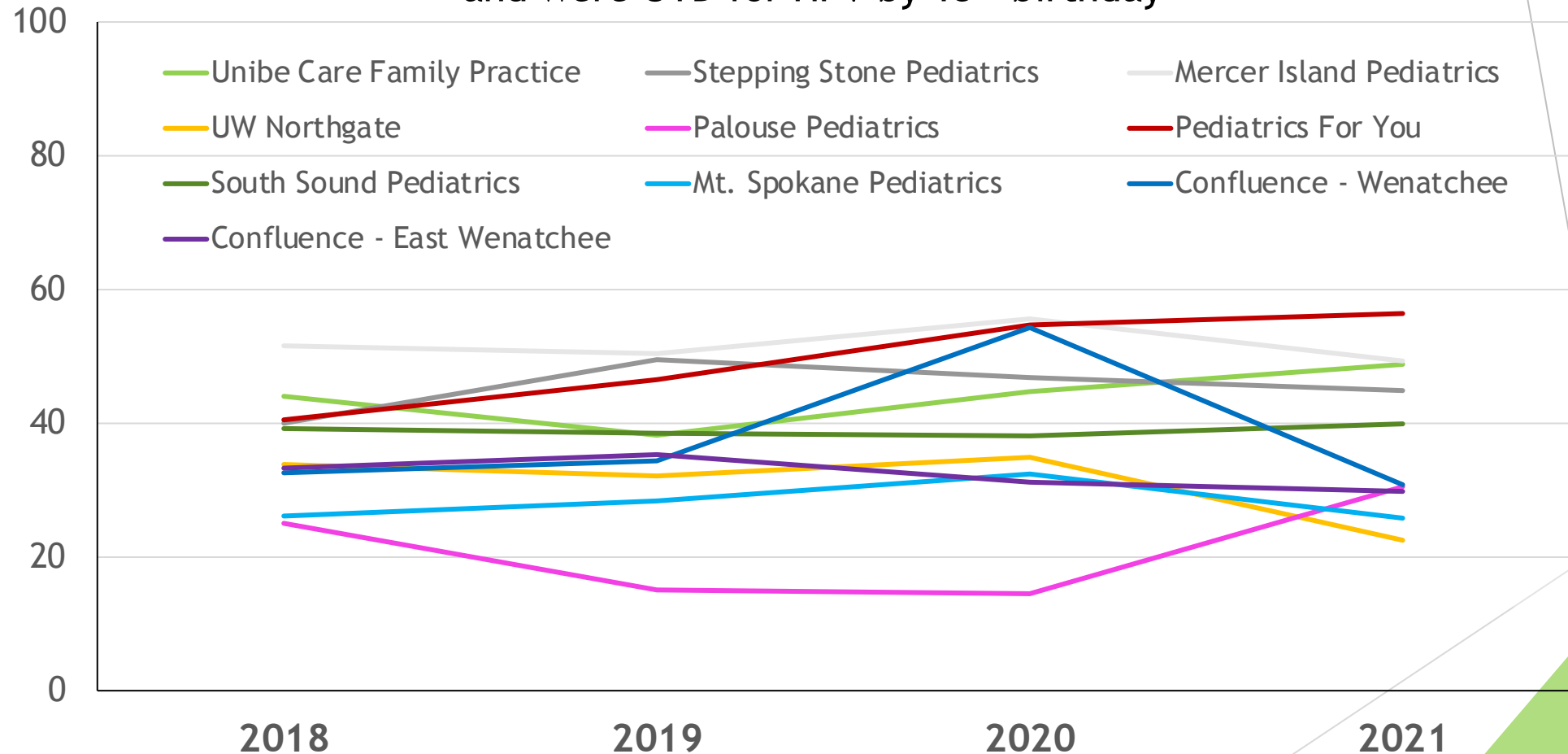
Percentage of 7 year-olds who received 2 MMR, 2 varicella, 5 DTaP, and were UTD for IPV by 7th birthday



Source: Washington State Department of Health, NCQA

# Adolescent Vaccination Rates: Cohort 4 Clinics

Percentage of 13 year-olds who received  $\geq 1$  Tdap,  $\geq 1$  meningococcal, and were UTD for HPV by 13<sup>th</sup> birthday



Source: Washington State Department of Health, NCQA



# Common Barriers to Vaccine Uptake

- ▶ **Getting patients vaccinated on-time is difficult to do**
- ▶ Families may miss annual visits
  - ▶ Limited access to care, especially during pandemic
  - ▶ Lack of insurance, transportation, or time off work
  - ▶ Competing demands and stressors, especially secondary to pandemic disruptions (social and financial)
- ▶ Families may be unaware vaccines are due
- ▶ Vaccine hesitant families
  - ▶ Some may need multiple discussions about vaccines

# Common Barriers to Vaccine Uptake

- ▶ Missed vaccination opportunities
  - ▶ Vaccine eligibility status not known
  - ▶ Concomitant vaccination not offered
  - ▶ Vaccines not given during all visit types
  - ▶ Inadequate supply
- ▶ Weak healthcare provider recommendation
- ▶ Personal beliefs of healthcare staff

# Evidence-Based Strategies to Improve Uptake

## Parent/Patient

- Reminder/recall
- Educational materials

## Provider

- Huddles
- Standing orders
- Strong recommendation

## Practice

- Measure/share rates
- Vaccine-only visits
- Standardize vaccination practices

# Standardize Vaccination Practices

- ▶ ACIP gives ranges of when vaccines are due and earliest age when a vaccine dose is considered valid
- ▶ **Strategy: Recommend at earliest possible opportunity**
  - ▶ Increase opportunities to finish vaccine series on-time
  - ▶ Increase “up-to-date” vaccination coverage rates
- ▶ **Examples:**
  - ▶ Kindergarten vaccines at 4 years
  - ▶ HPV vaccination at 9 years

# HPV Vaccination at 9 Years

- ▶ Strategy to increase on-time completion of HPV series
- ▶ Endorsed by
  - ▶ American Academy of Pediatrics
  - ▶ American Cancer Society
  - ▶ National HPV Vaccination Roundtable
  - ▶ WA State Department of Health; state epidemiologist Dr. Lindquist
- ▶ Fits within CDC/ACIP guidelines
  - ▶ “HPV vaccination is routinely recommended at age 11 or 12 years; **HPV vaccination can be started at age 9 years.**”

# Benefits of Posting Standardized Schedule

- ▶ Reduces confusion among staff
- ▶ Reduces errors
- ▶ Helps parents keep track of vaccines
  - ▶ Parents like knowing what's next
  - ▶ Talking point - visual cue
- ▶ Adds authority to strong recommendation
- ▶ Indicates vaccines are important and routine

**Protect Your Preteen/Teen with Vaccines**

Protect them from serious diseases including HPV cancers, meningitis, tetanus, whooping cough, flu, and COVID-19.

**AGES 9 - 10**

- HPV dose 1 (human papillomavirus)
- HPV dose 2 (6 - 12 months after dose 1)

**AGES 11 - 12**

- Meningitis dose 1 (MenACWY)
- Tdap (tetanus, diphtheria, pertussis)
- HPV (if 2 doses haven't been given)


**AGE 16**

- Meningitis dose 2 (MenACWY)
- Meningitis B series (MenB)

**YEARLY**

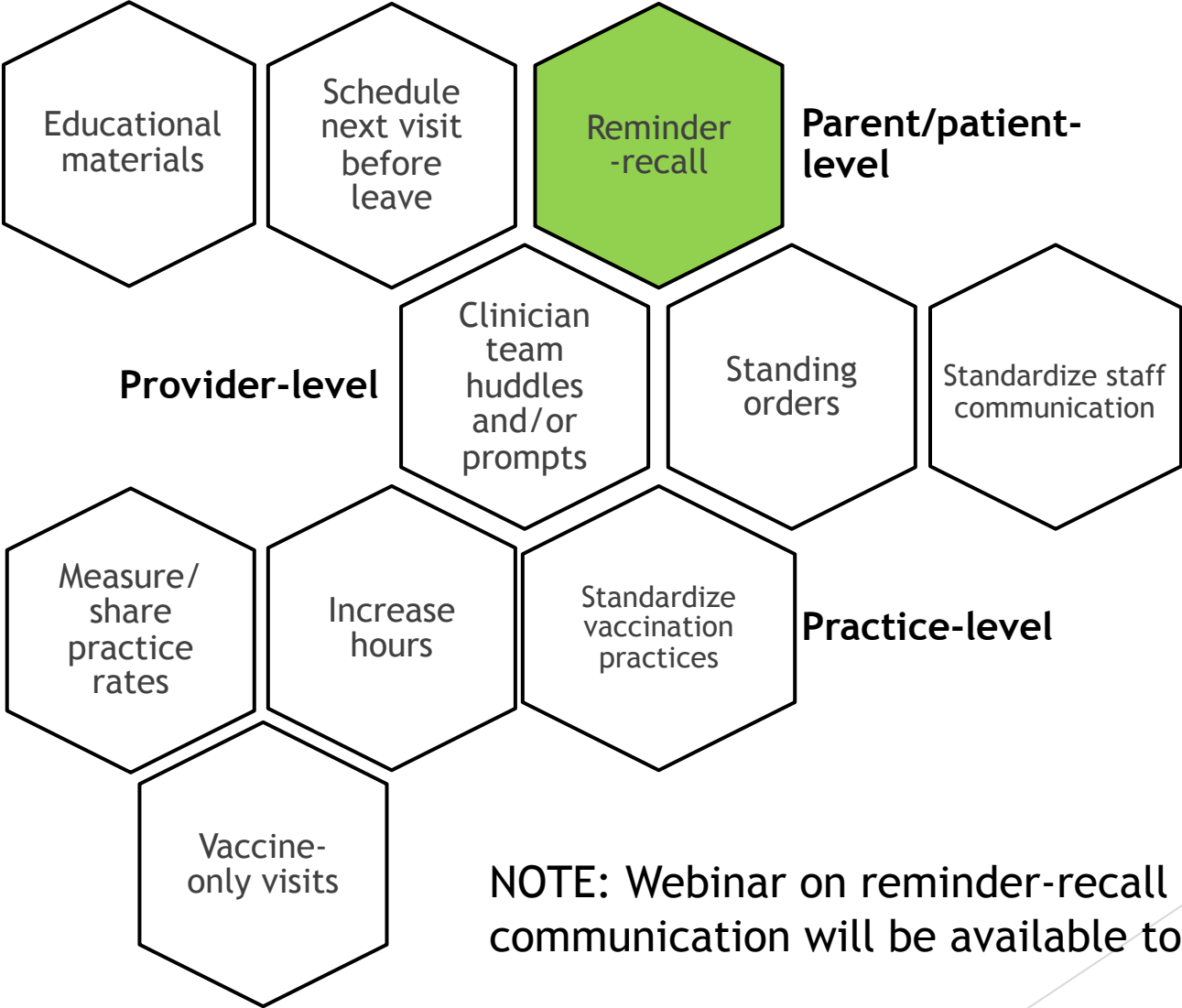
- Flu (seasonal influenza)

*Preteens and teens should stay up-to-date with COVID-19 vaccine to help protect them from COVID-19.*



This publication was supported in part by funding from the Centers for Disease Control and Prevention through Cooperative Agreement grant number 5 N59AP00082. The content of this publication does not necessarily represent the official views of, nor an endorsement by, the CDC/HRHS or the U.S. Government.

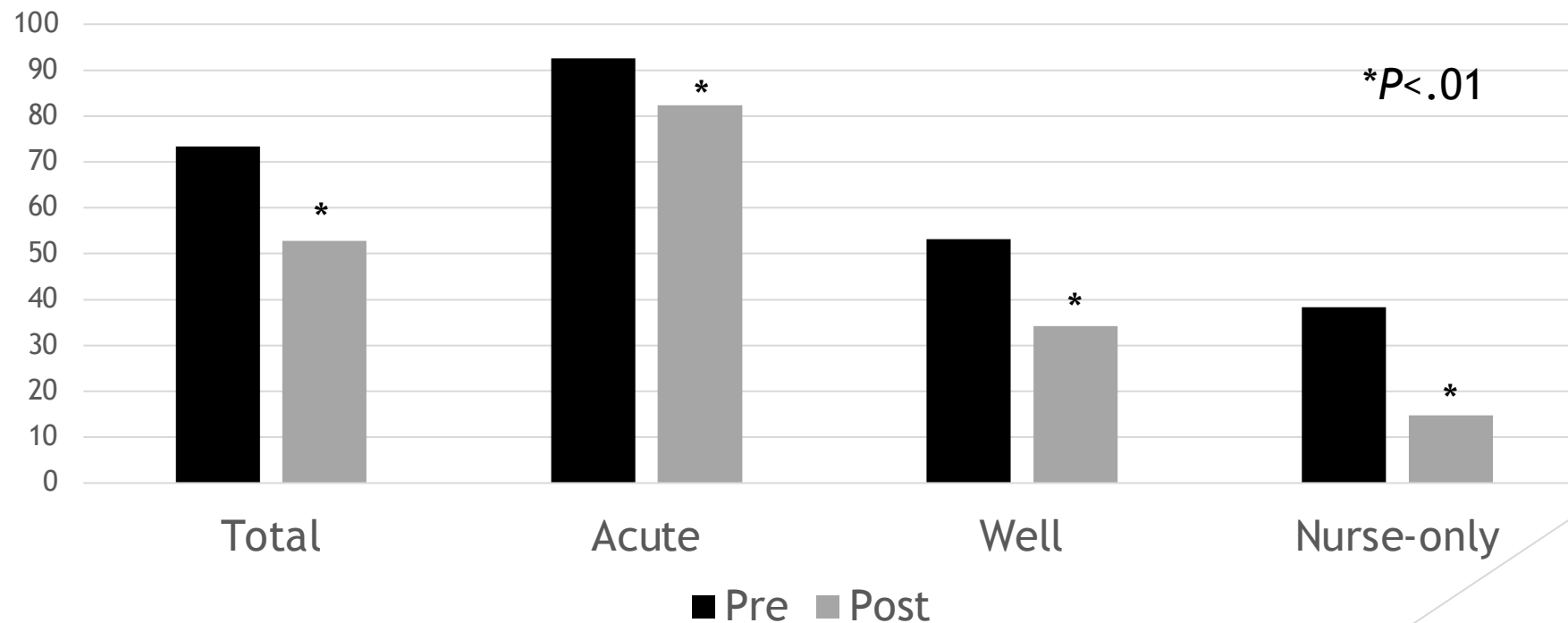
# WA-CHIP Suite of Interventions



NOTE: Webinar on reminder-recall and provider communication will be available to all

# National Improvement Partnership with the APA (NIPA) Results

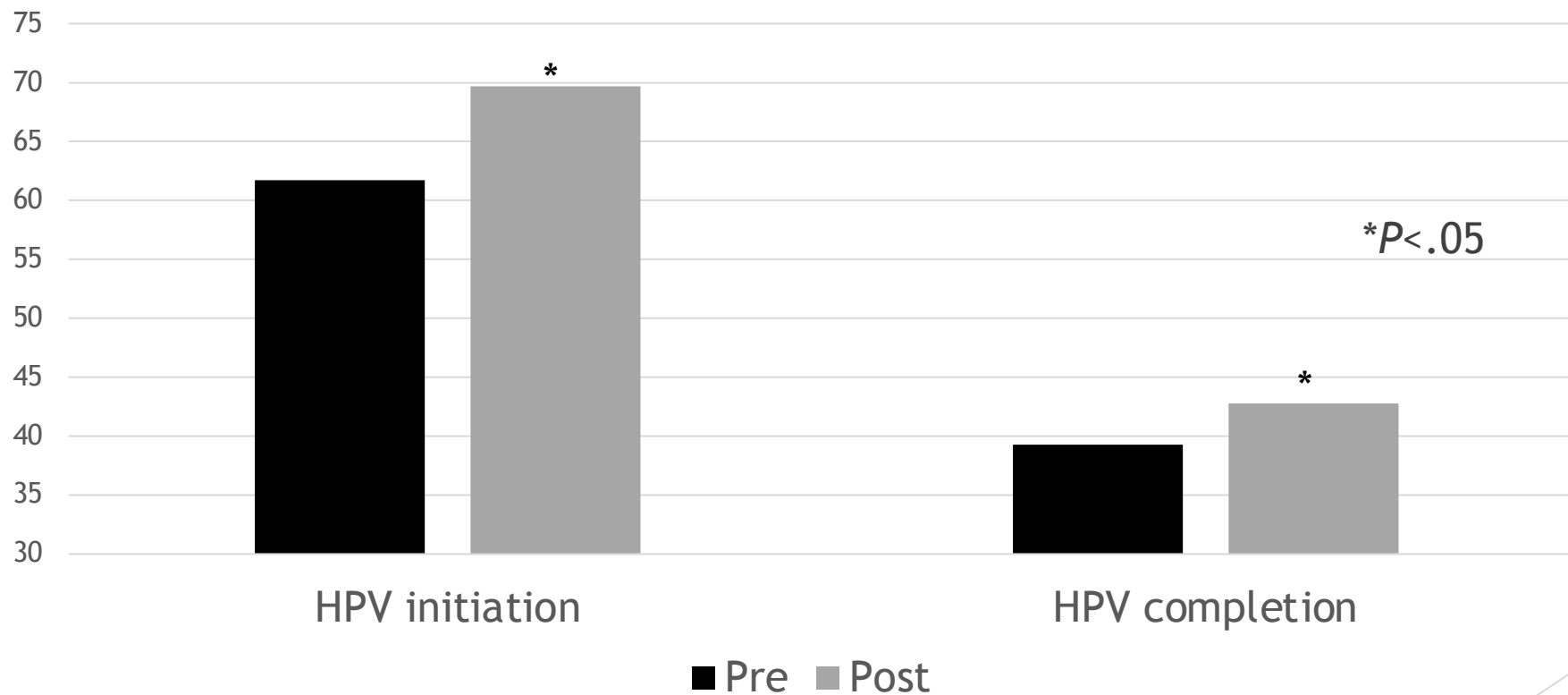
Percent Missed Opportunities for HPV According to Visit Type (lower is better)



Source: Rand CM et al, *Acad Pediatr* 2018



# NIPA: HPV Vaccine Series Initiation and Completion Rates Before and After QI Intervention



Source: Rand CM et al, *Acad Pediatr* 2018

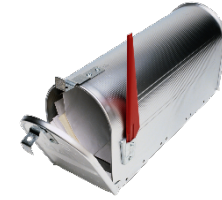
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# Importance of Vaccine Reminder-Recall



# Vaccine Reminder-Recall



## What is vaccine reminder-recall?

- ▶ Strategy to (A) identify patients due or overdue for vaccines and (B) send messages to patients/families in order increase timely up-to-date vaccination

## How does it work?

- ▶ Addresses common reasons for missing doses, i.e., forgot or missed appointment, unaware of vaccine schedule
- ▶ Serve as **CUE TO ACTION** for patients and families



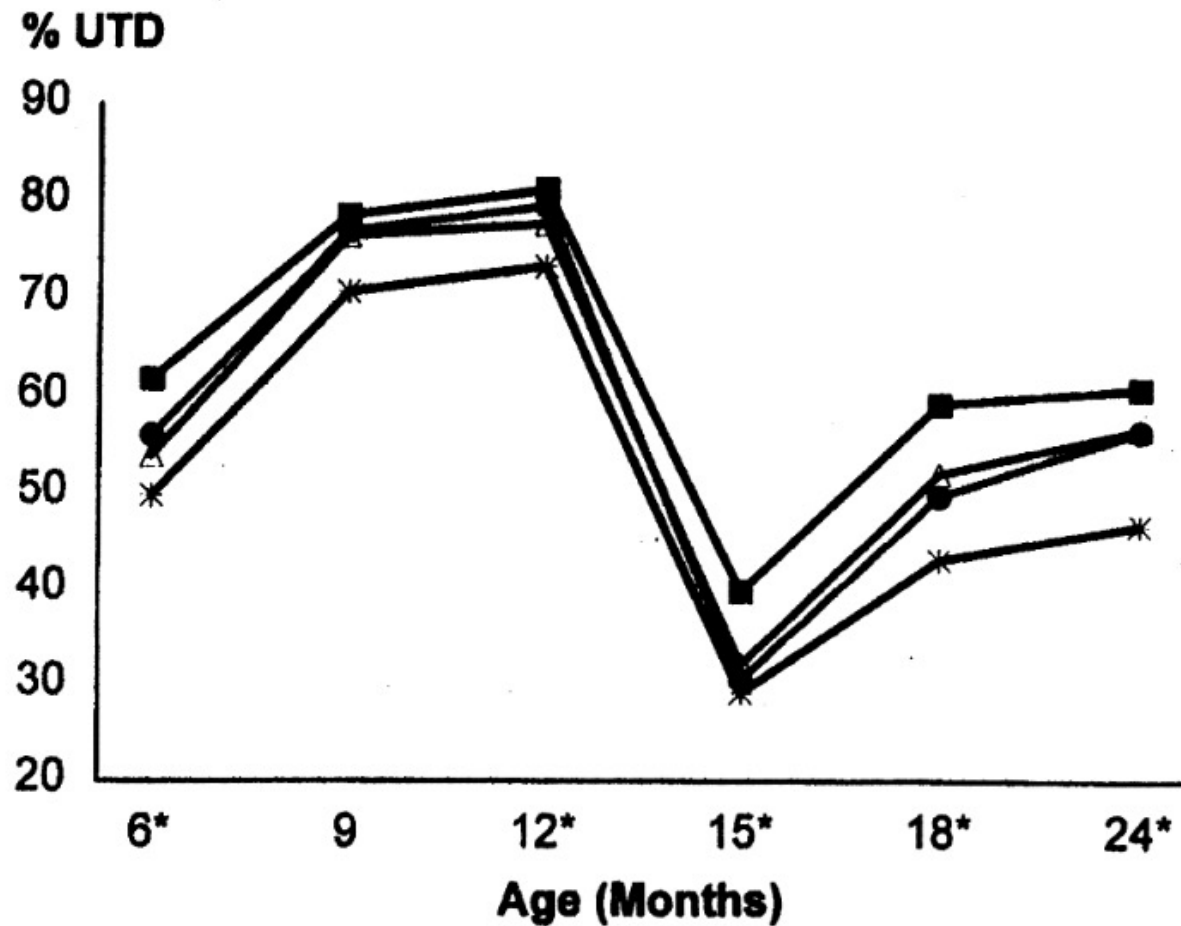
# Vaccine Reminder-Recall

## Reminder-Recall Effectiveness

- ▶ Demonstrated in diverse patient populations and settings
- ▶ Examined using various reminder-recall types, messaging content, targeted vaccines, etc.

| Outcome                         | No. of studies | No. of participants | Risk Ratio, 95% CI |
|---------------------------------|----------------|---------------------|--------------------|
| Childhood vaccinations          | 23             | 31,099              | 1.22 (1.15-1.29)   |
| Adolescent vaccinations         | 10             | 30,868              | 1.29 (1.17-1.42)   |
| Childhood influenza vaccination | 5              | 9,265               | 1.51 (1.14-1.99)   |

# Childhood Vaccine Reminder-Recall



Phone + Letters (61%)  
Phone or Letter Only (57%)  
Control (47%)

- Group A (Telephone + Letters)
- Group B (Telephone Only)
- △— Group C (Letters Only)
- \*— Group D (Control)

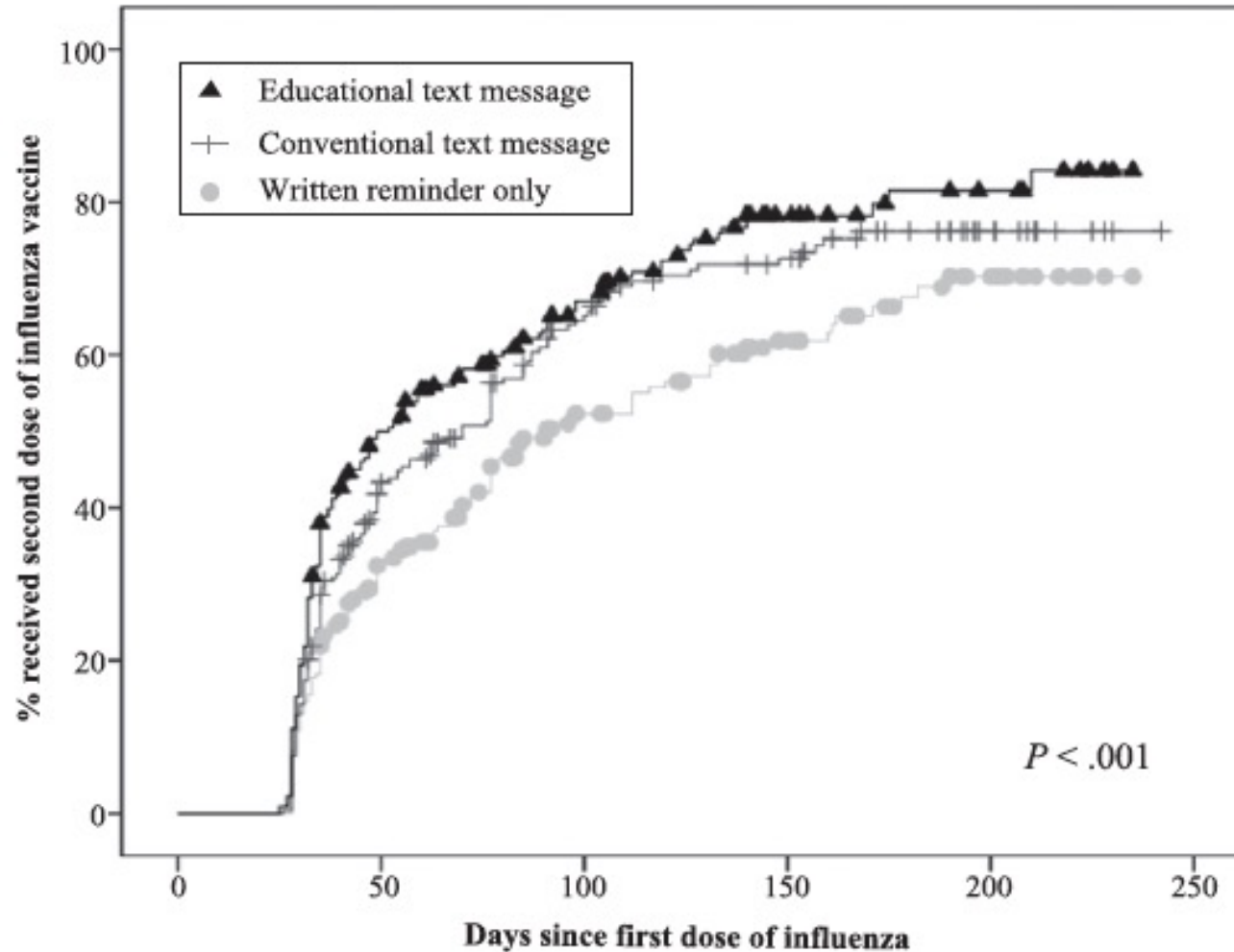
Dini et al AJPM 2000



# HPV Vaccine Recall

- ▶ Cluster randomized trial of HPV vaccine recall vs. usual care
- ▶ More patients completed HPV vaccination in recall vs. usual care arms
  - ▶ 2<sup>nd</sup> dose: 83% vs. 71%
  - ▶ 3<sup>rd</sup> dose: 63% vs. 38%
- ▶ Fewer patients delayed HPV vaccination in recall vs. usual care arms
  - ▶ 1-2 dose: 47% vs. 65%
  - ▶ 2-3 dose: 48% vs. 58%
  - ▶ 1-3 dose: 45% vs. 57%

# Influenza Vaccine Reminders (Dose 2)





# Reminder-Recall Steps

1. Identify patients to target with reminder-recall
2. Select reminder-recall type to use in your practice
3. Develop reminder-recall message content
4. Send reminder-recall messages
5. Track process and outcome measures

# Patient Identification

## STEP 1: Identify patients to target with reminder-recall

- Patient age
- Vaccine types: any vs. only school required
- Status: coming due, due now, past due

**Considerations:** priority patients, practice logistics such as staff time, resources, workflow

# Reminder-Recall Types

## STEP 2: Select reminder-recall type for your practice

- Telephone (person-to-person, auto-dialer)
- Letter
- Postcard
- Text message
- Email

**Considerations:** patient population, practice logistics such as staff time, resources, workflow

Clark et al Pediatrics 2011; Hofstetter et al Prev Med 2013; Kempe et al Pediatrics 2016; Jacobson Vann et al, Cochrane Database of Systematic Review 2016

# Message Content

## STEP 3: Develop message content

- Basic message: who, what, where, when
- Educational message: info above + why important
- Interactional message: patient/families can seek more information by interacting with messaging system

## Considerations:

- Can customize as needed

# Step 4: Send Reminder-Recall Messages

- # messages
- Interval between messages
- Timing during day

## **Considerations:** downstream impact on practice

- Will families be instructed to call practice? Staffing needs?  
Appointment availability?

# Step 5: Tracking Measures

- Process Measures
  - Example: # patients sent message(s)
- Outcome Measures
  - Example: # patients who received needed vaccine doses

# WAIS Reminder-Recall Functionality

- Practices can utilize IIS to help prepare and track vaccine reminder-recall messages for their patients

## Advantages

- Free, save resources, easy to access
- Based upon all available vaccine records

## Disadvantages

- May include patients no longer seen in a given practice
- May not include updated contact information or all vaccine records (if not entered into WAIS)

# IIS Immunization Quality Improvement Tools

The IIS has several tools to assist providers in assessing and improving clinic coverage rates:

- 1) Assess coverage using the Coverage Rate Report.
- 2) Use Reminder/Recall to identify patients who are not up to date.
- 3) Use Manage Population tool to identify current patient panel and inactivate patients when they are no longer receiving care at your clinic(s).



# Using IIS for Reminder-Recall: Meet with Chrystal to learn more!

## IIS Questions & Assistance

Contact the Help Desk

- 1-800-325-5599
- [WAISHelpDesk@doh.wa.gov](mailto:WAISHelpDesk@doh.wa.gov)

## Request IIS Training

Email the IIS Outreach & Training Team

[IIS.Training@doh.wa.gov](mailto:IIS.Training@doh.wa.gov)

## IIS Training Resources

Visit the IIS Training Materials Portal

[www.doh.wa.gov/trainingIIS](http://www.doh.wa.gov/trainingIIS)

## Recorded IIS Webinars on YouTube

Visit the IIS YouTube Channel [here](#)



**IIS News**  
January 2017

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WASHINGTON STATE ———  
**IMMUNIZATION**  
————— INFORMATION SYSTEM

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- [IIS School Module](#)
- [CDC e-Learning Institute Acceptance](#)
- [2017 Training Needs Assessment Results](#)
- [Vaccine Accountability Reporting Assistance](#)
- [New System Administrator Guide Available](#)
- [Upcoming IIS Trainings](#)
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[www.doh.wa.gov/trainingIIS](http://www.doh.wa.gov/trainingIIS)

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**December 2016 Upgrade**

On December 8, 2016 the IIS was upgraded. Please review the materials below to see the changes and updates included in the upgrade.

[IIS Upgrade Summary](#)  
[IIS Forecast Update](#)



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# QI Fundamentals

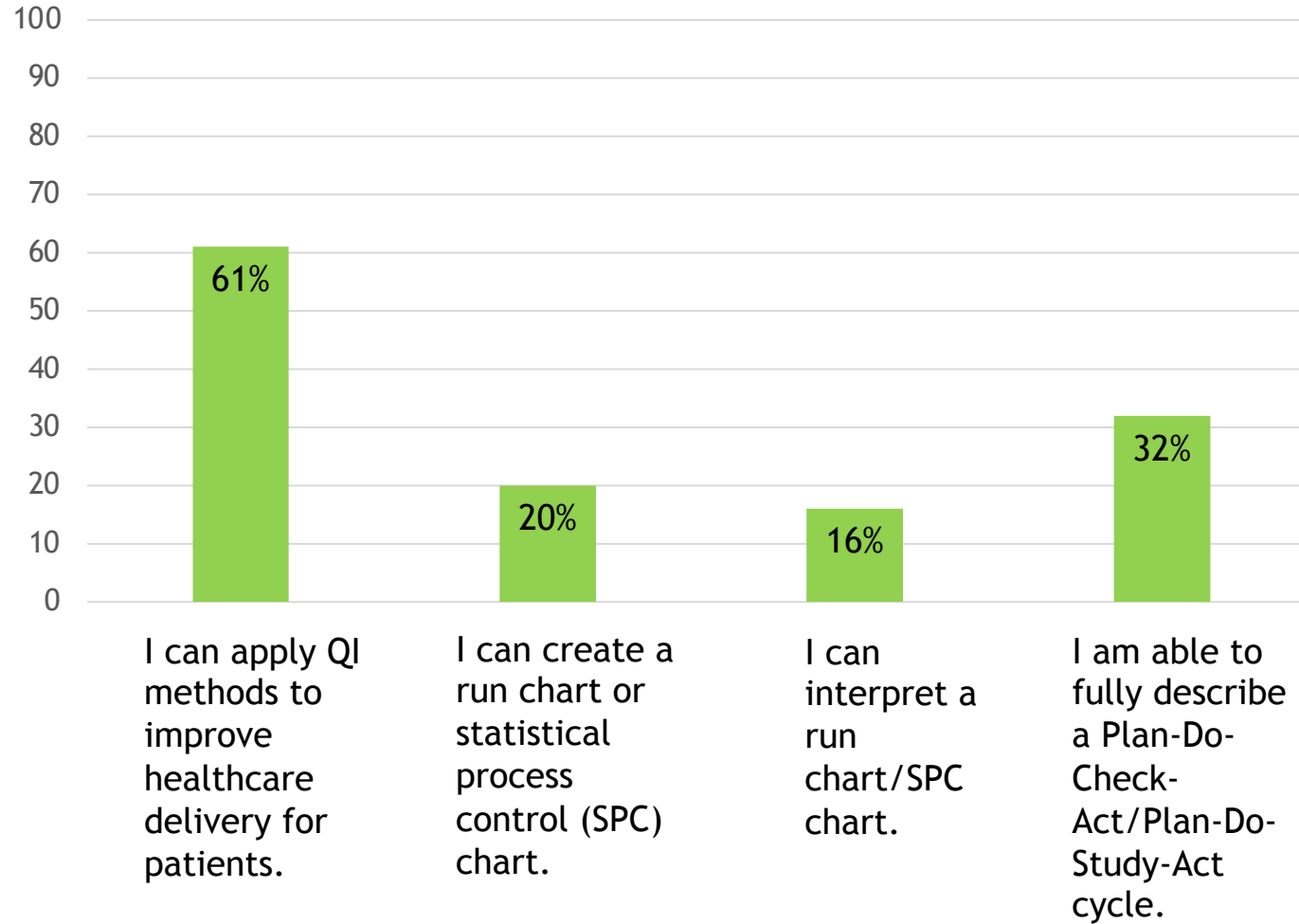


# Learning Objectives

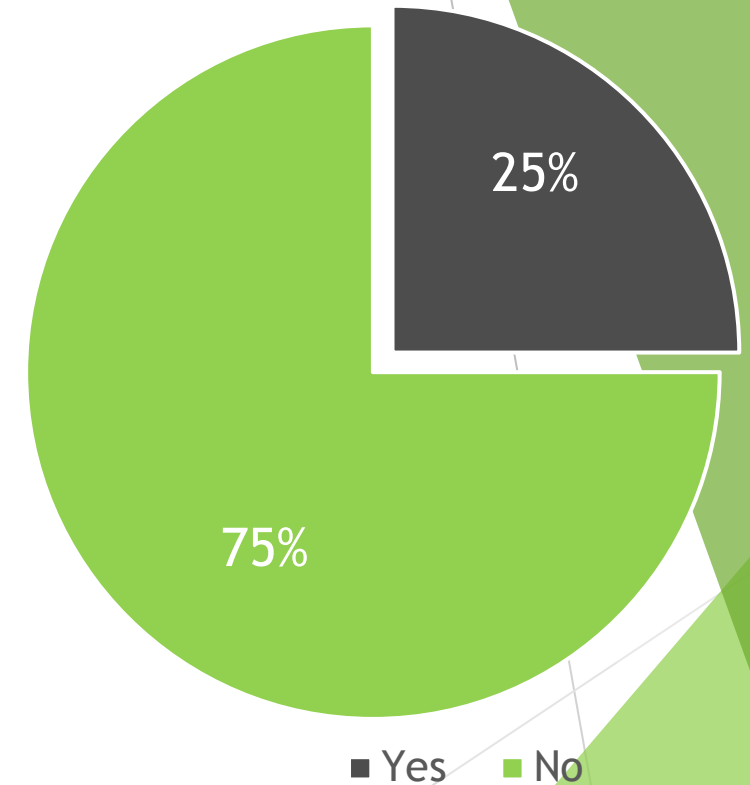
- ▶ **Apply QI Fundamentals to improve vaccination rates in your practice**
  - ▶ Identify missed opportunities and barriers to vaccination
  - ▶ Interpret QI data to identify trends and establish goals
  - ▶ Use a process map to describe current and ideal state
  - ▶ Distinguish reliable and practical QI interventions
- ▶ Develop an **Improvement Plan** for your practice
- ▶ Develop a **Leadership Plan** for your practice

# DATA WACHIP COHORT, N=44

Proportion of Respondents who Agree or Strongly Agree with the Following Statements



Proportion of Respondents who Answer 'Yes' or 'No' to the Following Statement

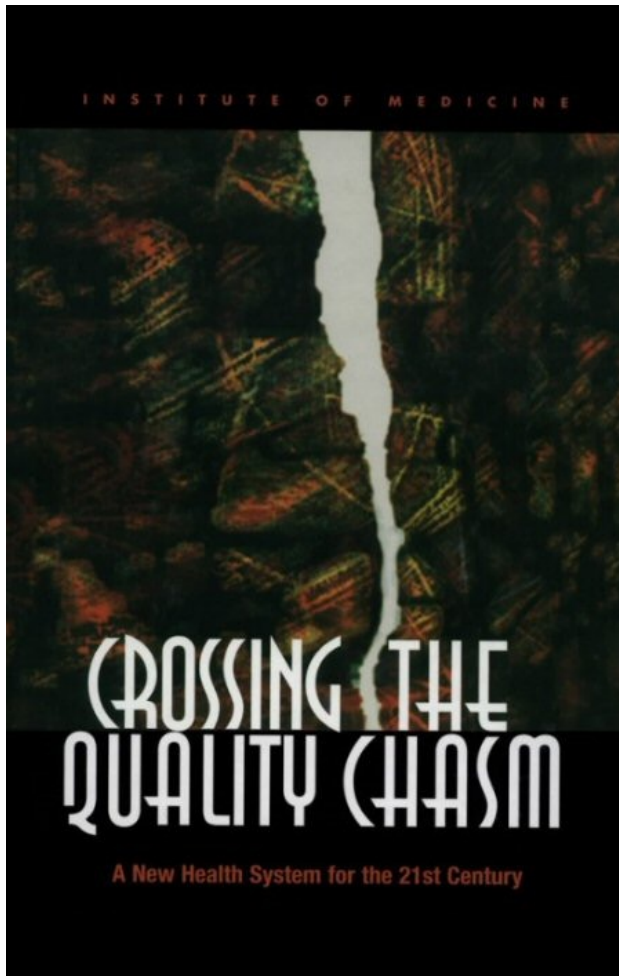


I previously participated in QI education and/or training (e.g., IHI Open School, Utah ATP, CPI training).

# What is quality?



# Quality Improvement...



The degree to which healthcare services for individuals and populations

- increase the likelihood of desired health outcomes
- consistent with current professional knowledge

The U.S. is

- ◆ 29th in infant mortality
- ◆ 48th in life expectancy
- ◆ 19th in preventable deaths  
(of 19 industrialized nations)

...but we spend twice per capita than other industrialized nations





# Delivering Quality Care

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

## The Quality of Ambulatory Care Delivered to Children in the United States

Rita Mangione-Smith, M.D., M.P.H., Alison H. DeCristofaro, M.P.H.,  
Claude M. Setodji, Ph.D., Joan Keeseey, B.A., David J. Klein, M.S., John L. Adams, Ph.D.,  
Mark A. Schuster, M.D., Ph.D., and Elizabeth A. McGlynn, Ph.D.

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

## The Quality of Health Care Delivered to Adults in the United States

Elizabeth A. McGlynn, Ph.D., Steven M. Asch, M.D., M.P.H., John Adams, Ph.D.,  
Joan Keeseey, B.A., Jennifer Hicks, M.P.H., Ph.D., Alison DeCristofaro, M.P.H.,  
and Eve A. Kerr, M.D., M.P.H.



Washington  
Child Health Improvement Partnership

# Two Types of Knowledge

## Subject Matter Knowledge

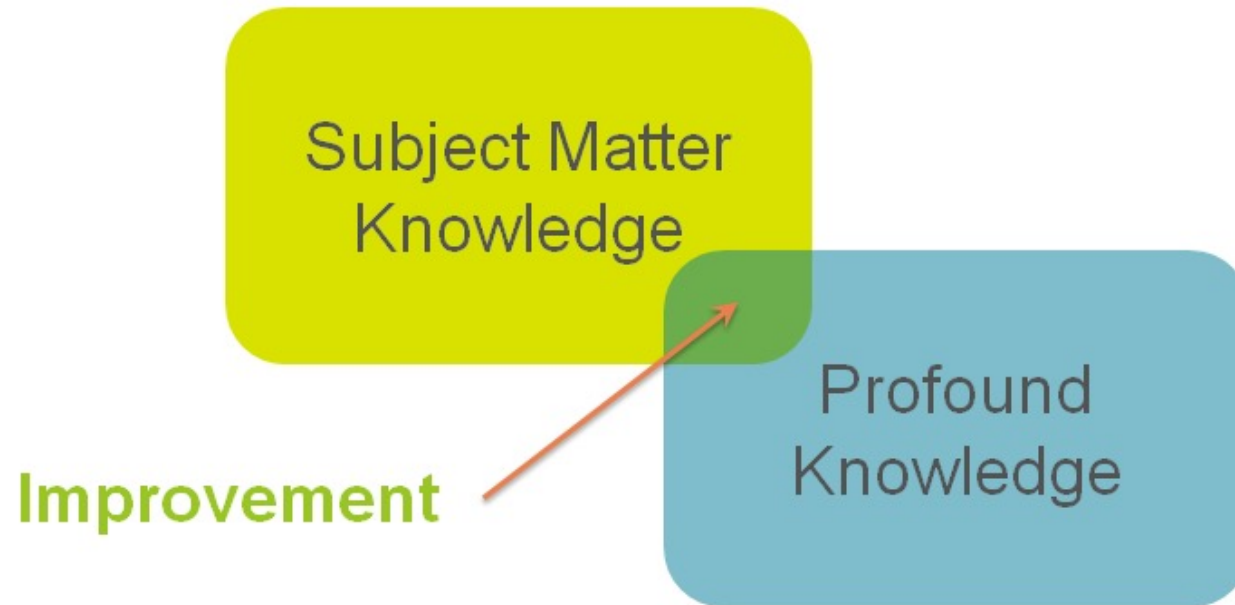
Subject Matter Knowledge:  
Knowledge basic to the things we do  
in life. Professional knowledge.

Profound Knowledge:  
The interplay of the theories of systems,  
variation, knowledge and psychology.

## Profound Knowledge

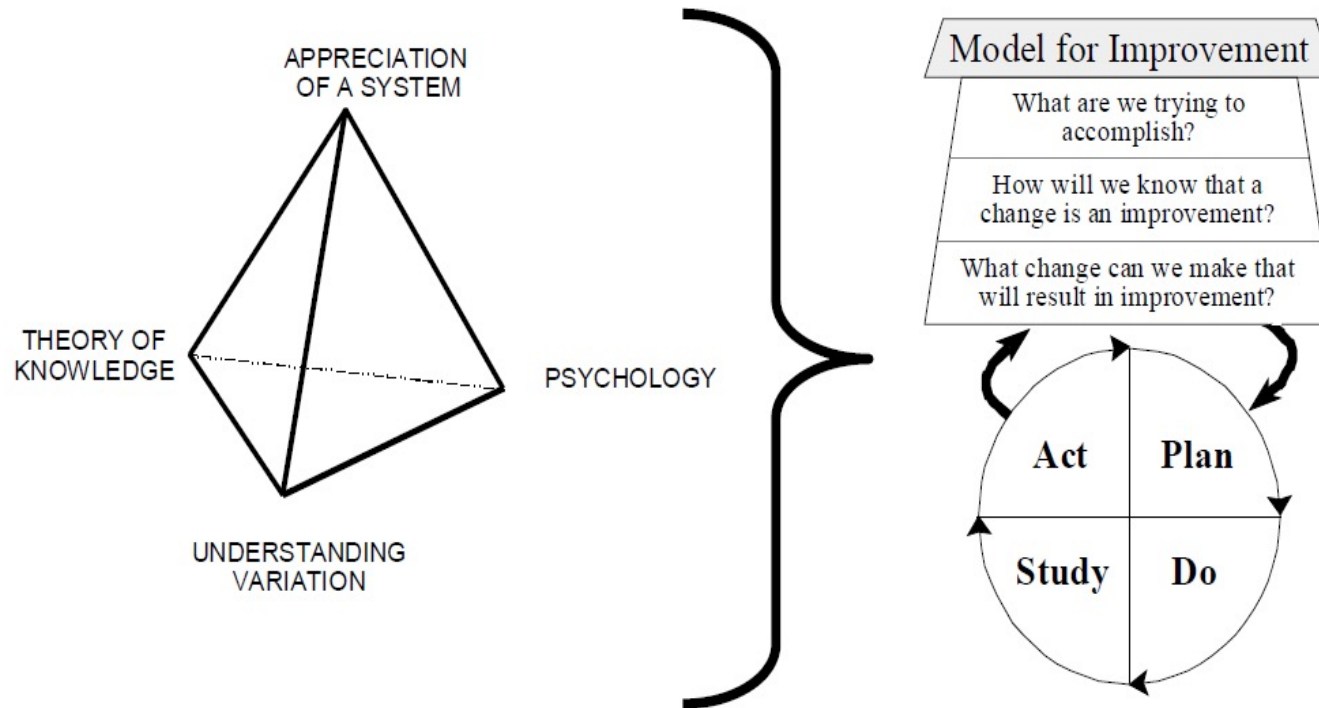
# Knowledge for Improvement

Improvement: Learn to combine subject matter knowledge and profound knowledge in creative ways to develop effective changes for improvement.



# Model for Improvement

“Act our way into learning  
instead of planning our way into action”



# Model for Improvement

## Setting Aims:

- ◆ Time specific
- ◆ Measurable
- ◆ Define the population that will be affected

## Establishing Measures:

- ◆ Teams use quantitative measures to determine if a change actually led to improvement

# Model for Improvement

## Selecting Changes:

- ◆ All improvement requires change but not all change leads to improvement
- ◆ Identify the changes or interventions most likely to lead to improvement

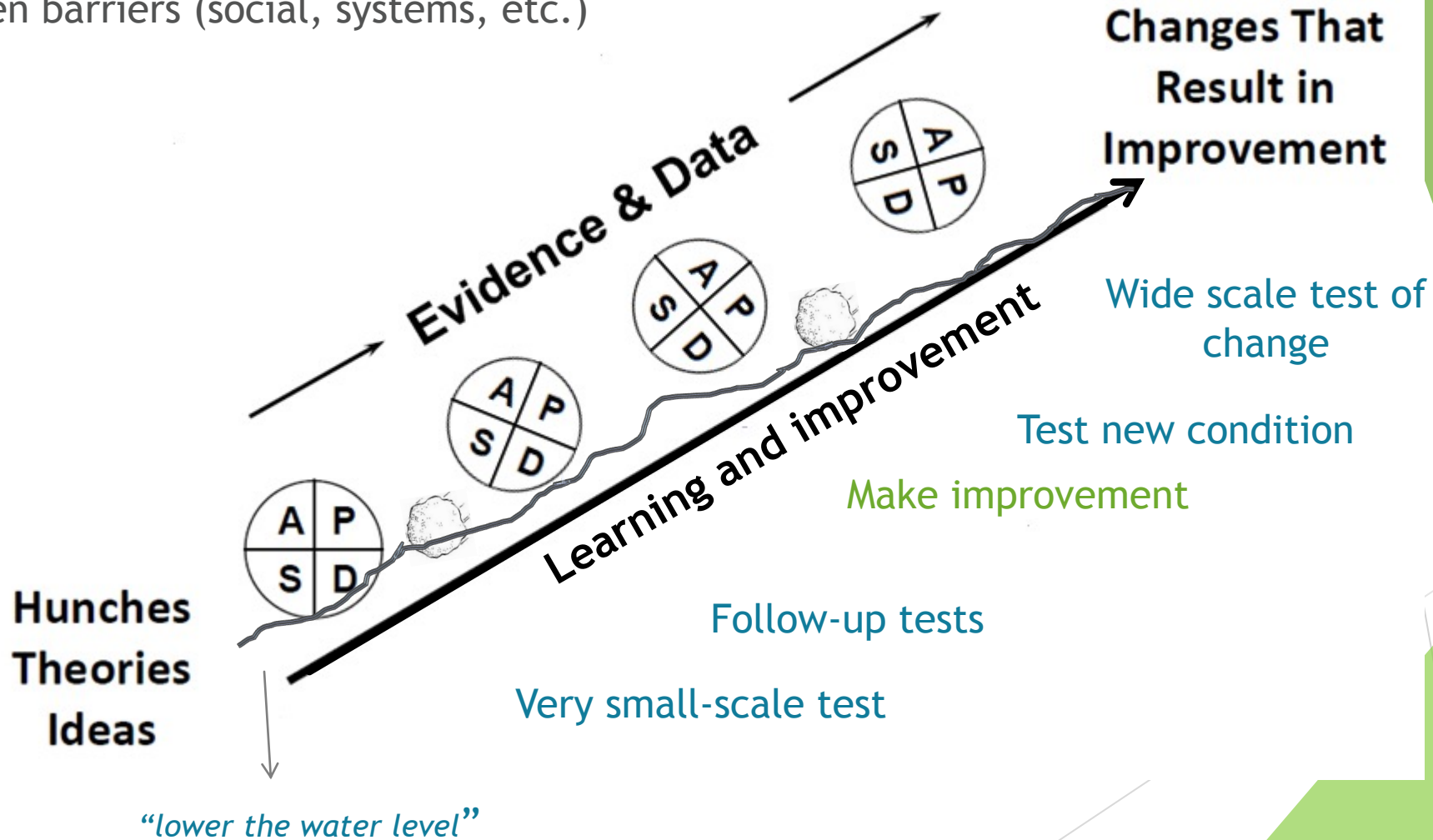
## Testing Changes:

- ◆ PDSA cycles lead to action-oriented learning in real-world setting
- ◆ Many hypothesis designed for complex/changing ecosystems do not lead to improvement
- ◆ Small tests and iterative changes can lead to improvement over time

# Building Knowledge with Multiple PDSAs

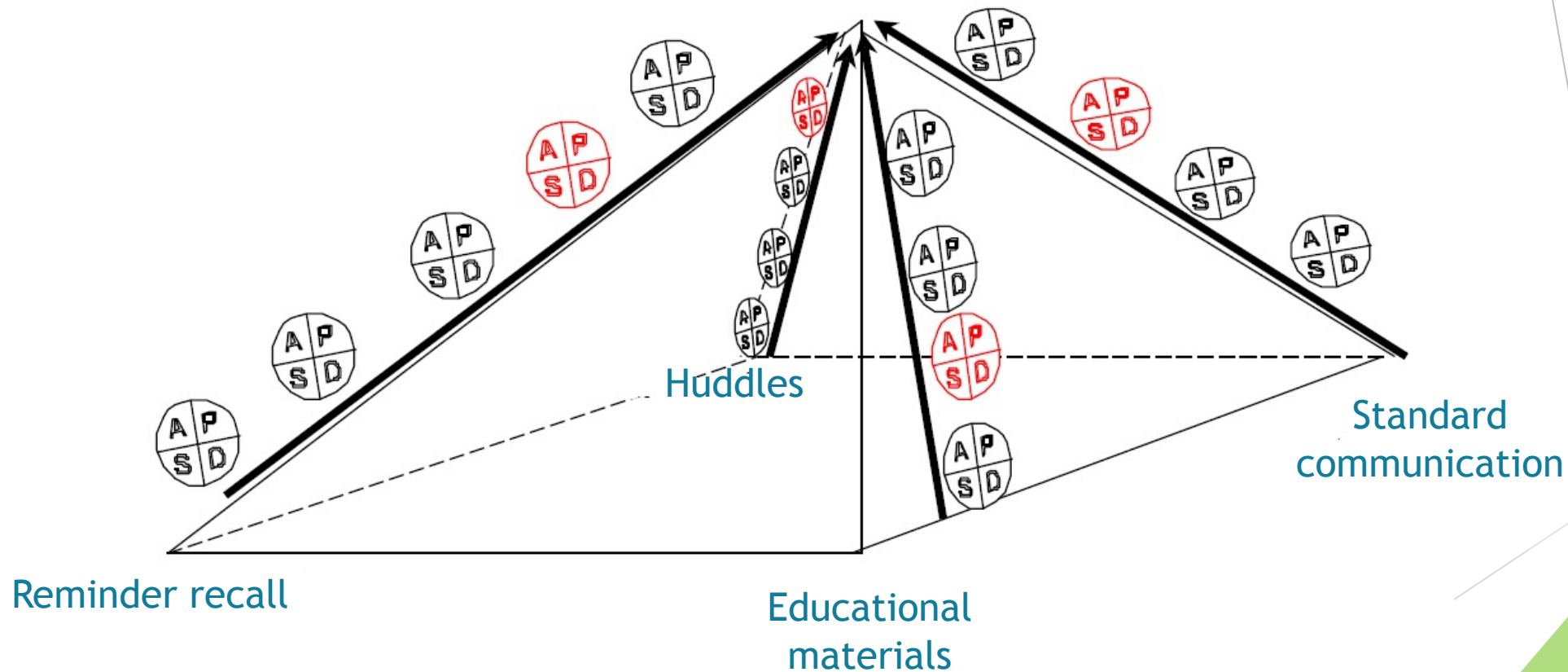


= Unforeseen barriers (social, systems, etc.)



# Using Change Concepts, Theories, Ideas

“BHAG” -> Missed Opportunities





## Model for Improvement



# Aims Should be SMART

S - Specific

M - Measurable

A - Achievable

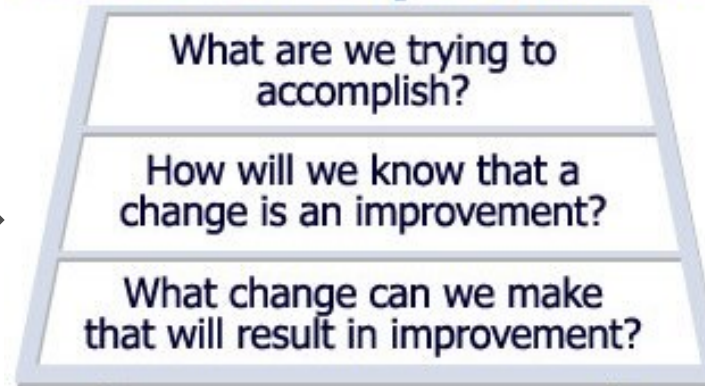
R - Relevant

T - Time Specific

# WA-CHIP Aim Statement

- ▶ By January 2023, participating practices will decrease their missed opportunities for administering vaccines to 4-6 and 11-17 year-olds by 20% compared to their practice baseline rate.

## Model for Improvement



# Types of Measures

- ▶ Outcome
  - ▶ Change in individual/population health outcomes
  - ▶ Intermediate or long-term
- ▶ Process
  - ▶ Function
  - ▶ Structure
  - ▶ Short or intermediate
- ▶ Balancing
  - ▶ Unintended or adverse impact

# Outcome Measure: Missed Opportunities

- ▶ **Numerator:** No. of 4-6 year-old patients seen in the previous 4 weeks at the practice who were eligible for MMR, Varicella, DTaP, and/or IPV and **did not receive the vaccine(s)**
- ▶ **Denominator:** All 4-6 year-old patients seen in the previous 4 weeks who were eligible for MMR, Varicella, DTaP, and/or IPV
- ▶ **Data Source:** Practice EHR
- ▶ Document in REDCap

# Outcome Measure: Missed Opportunities

- ▶ **Numerator:** No. of 11-17 year-old patients seen in the previous 4 weeks at the practice who were eligible for Tdap, MCV, and/or HPV and **did not receive the vaccine(s)**
- ▶ **Denominator:** All 11-17 year-old patients seen in the previous 4 weeks who were eligible for Tdap, MCV, and/or HPV
- ▶ **Data Source:** Practice EHR
- ▶ Document in REDCap

# Secondary Outcome Measure: Vaccination Rates

- ▶ Percentage change in vaccination rates at participating practices at 9 months after study kick-off:
  - ▶ % 7 year-olds who received 2 MMR, 2 varicella, 5 DTaP, and were UTD on IPV by age 7 years
  - ▶ % 13 year-olds who received 1 Tdap, 1 MCV, and were UTD on HPV by age 13 years
- ▶ **Data Source:** WA State Immunization Information System



# Process Measure: Reminder-Recall

- ▶ **Numerator:** No. of patients on reminder-recall list who are eligible for a vaccine and have been successfully contacted through the clinic reminder/recall outreach method (i.e., letter, phone call)
- ▶ **Denominator:** No. of patients on reminder-recall list who are eligible for a vaccine
- ▶ **Data Source:** Practices
- ▶ **Document in REDCap**

# You choose the process measure for other interventions you implement

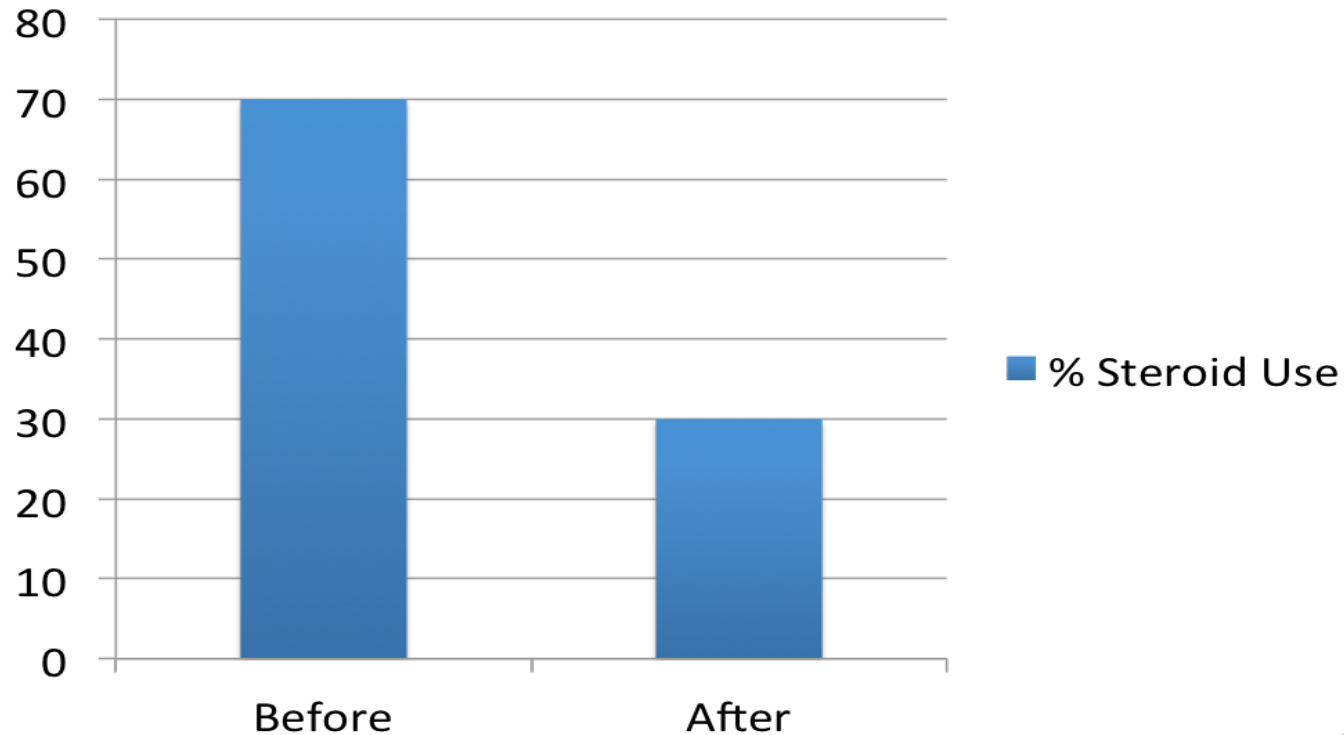
- ▶ Numerator
- ▶ Denominator
- ▶ Data Source
- ▶ Document in REDCap
- ▶ Plan to report at coaching and cohort check-ins

# Balancing Measure: You Choose

- ▶ Numerator
- ▶ Denominator
- ▶ Data source
- ▶ Plan to report at coaching and cohort check-ins

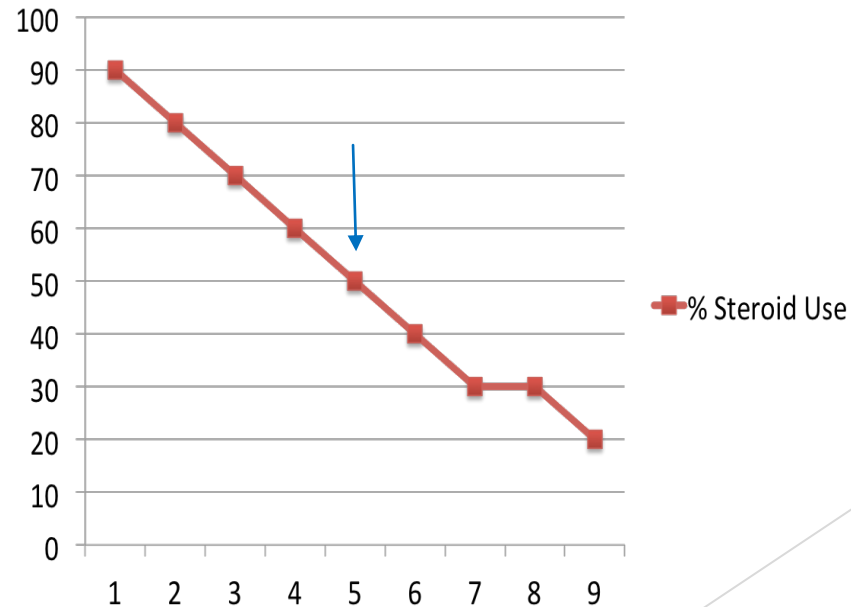
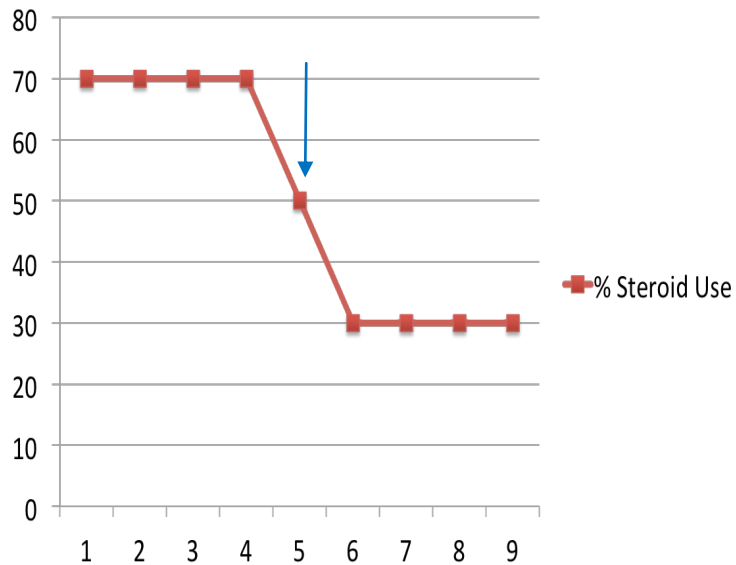
# Measurement: Before & After Comparisons

- ▶ Example: Reducing emergency department (ED) oral steroid use in bronchiolitis

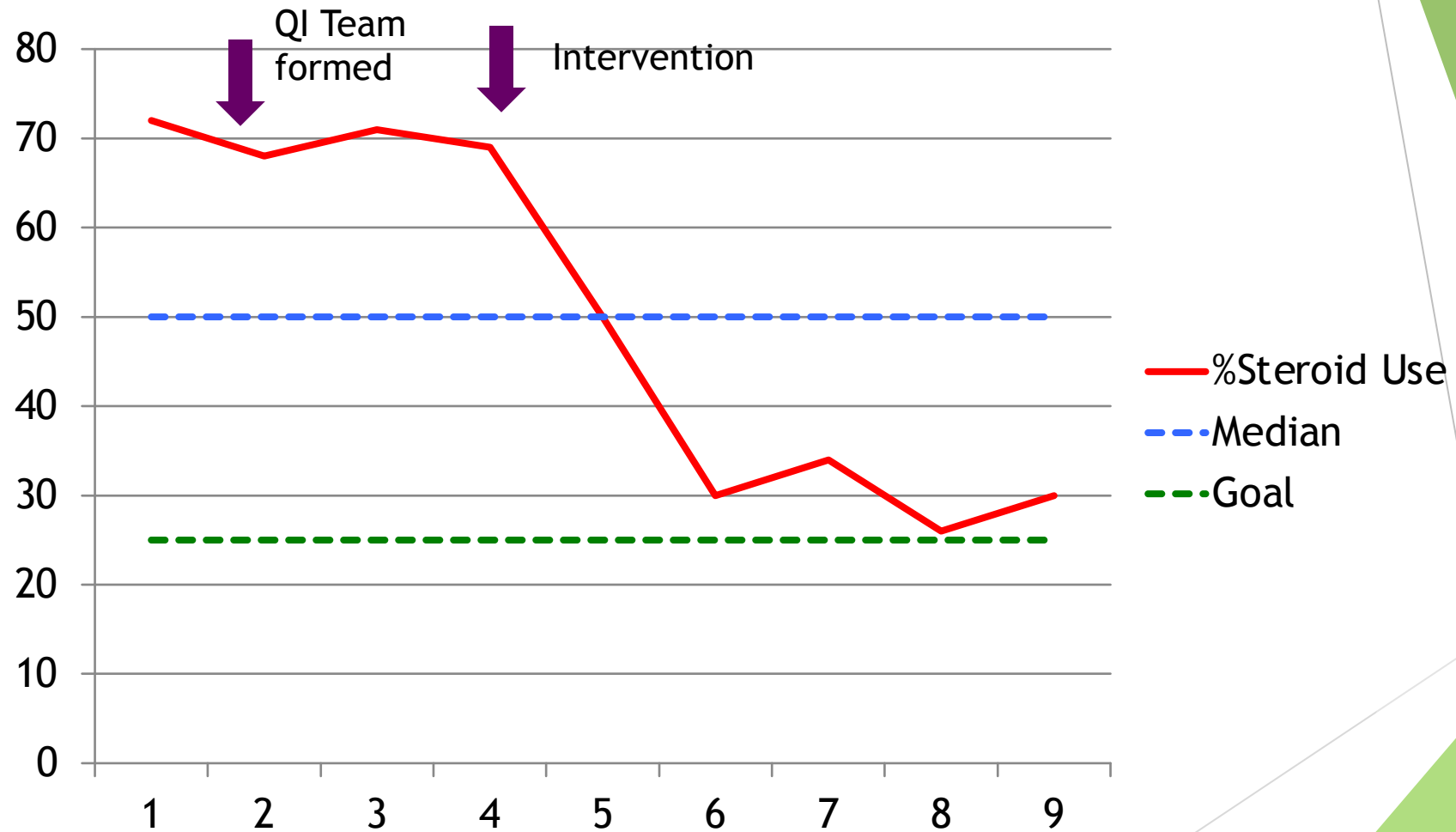


# Before and After Comparisons

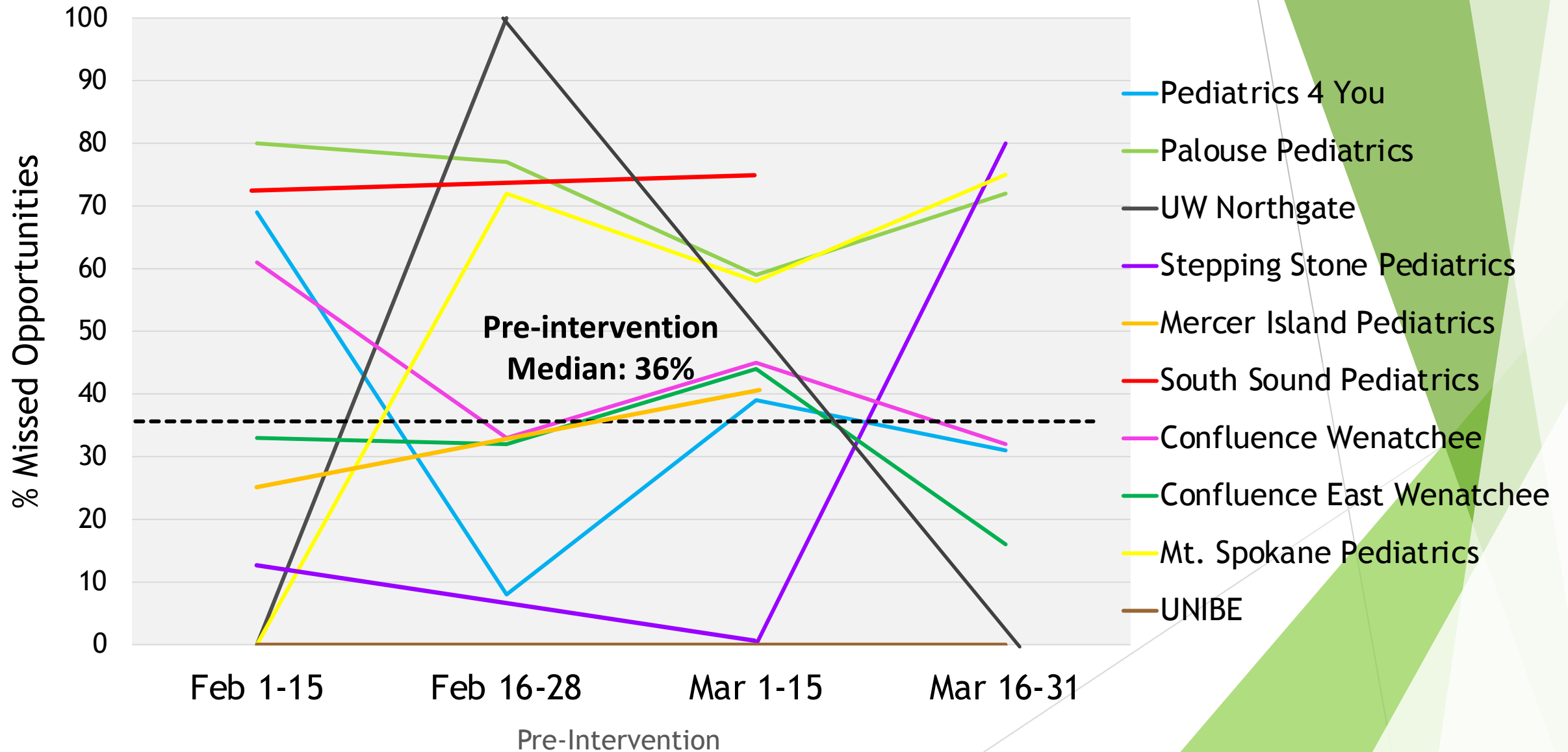
Assume the intervention happened around time point 5. Both graphs show change, but which one is related to the intervention?



# Annotated Run Chart



# Proportion of Missed Opportunities: February - March 2022



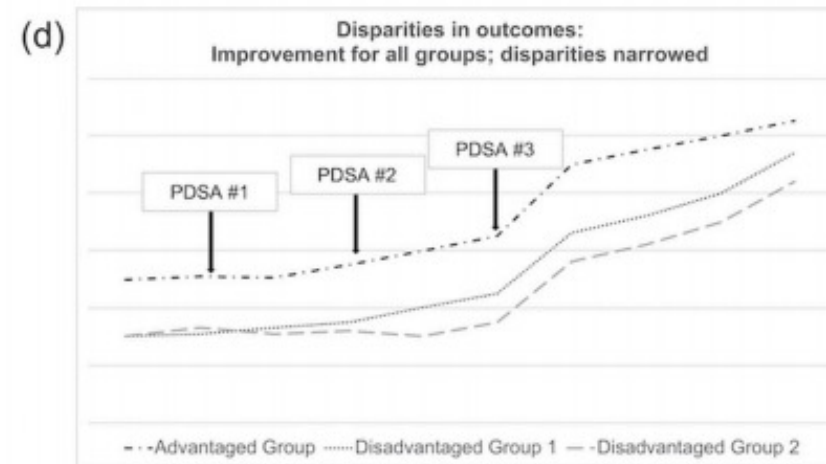
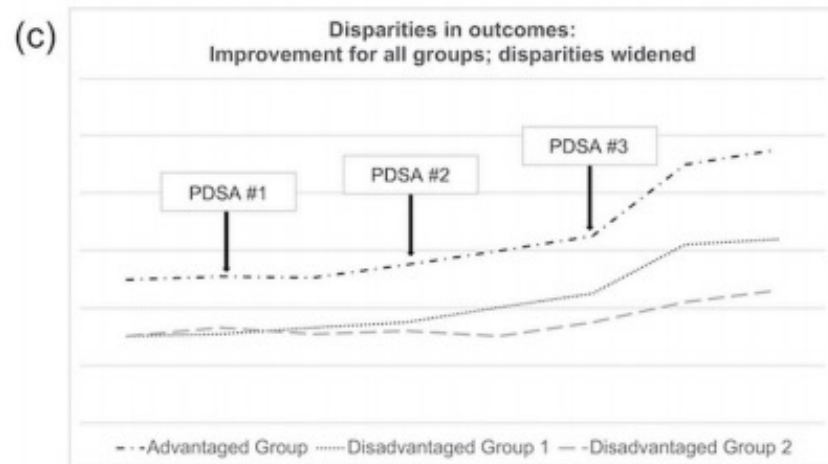
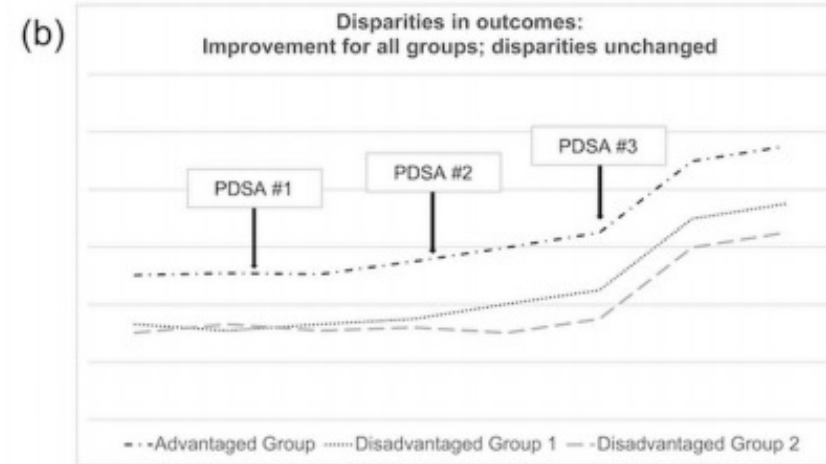
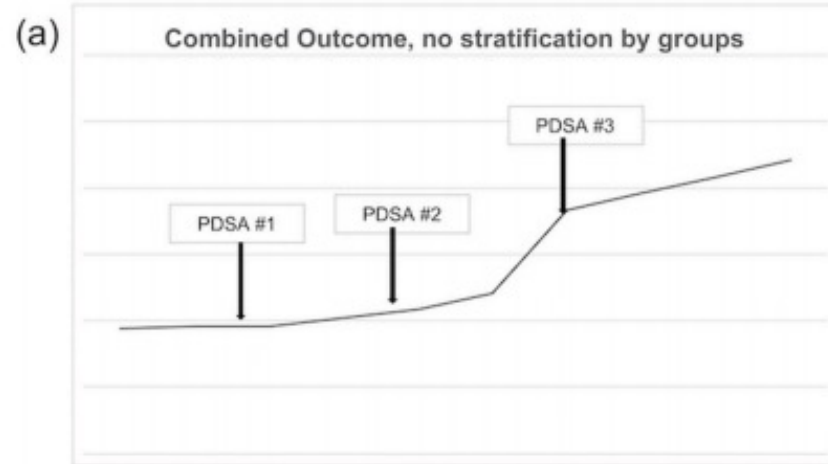
# Without Equity, QI Can Worsen Disparities

“Although quality improvement (QI) methodology is often suggested as a tool to advance health equity, the impact of QI initiatives on disparities is variable. QI work may mitigate, worsen, or perpetuate existing disparities. **QI projects designed without an intentional focus on equity promotion may foster intervention-generated inequalities that further disadvantage vulnerable groups.**”

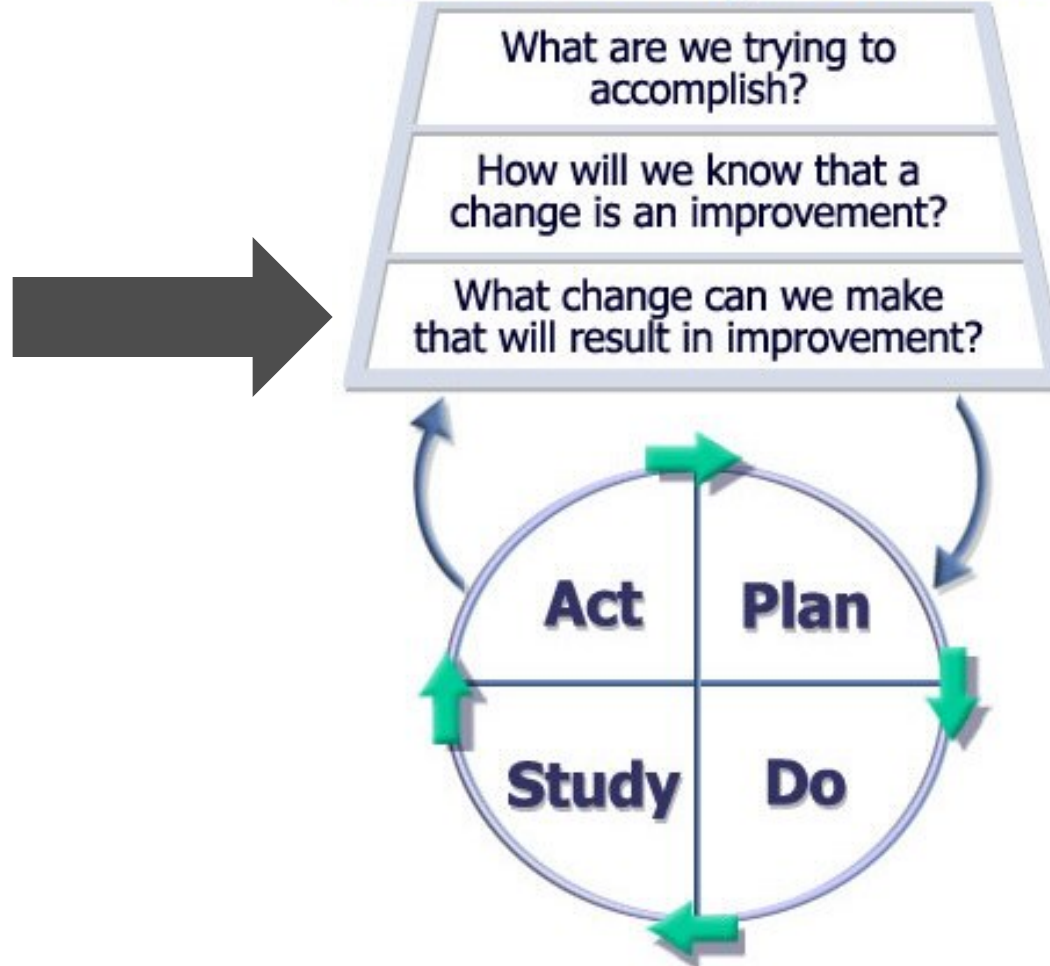
Reichman et al. *Seminars in Fetal and Neonatal Medicine* 2021



# Without Equity, QI Can Worsen Disparities



## Model for Improvement



# How Are Vaccines Administered in Your Clinic?

**Who?** Role of individuals: patients, caregivers, physician, nurses, MA, administrative staff, IT, etc.

**What?** Types of vaccines, inventory

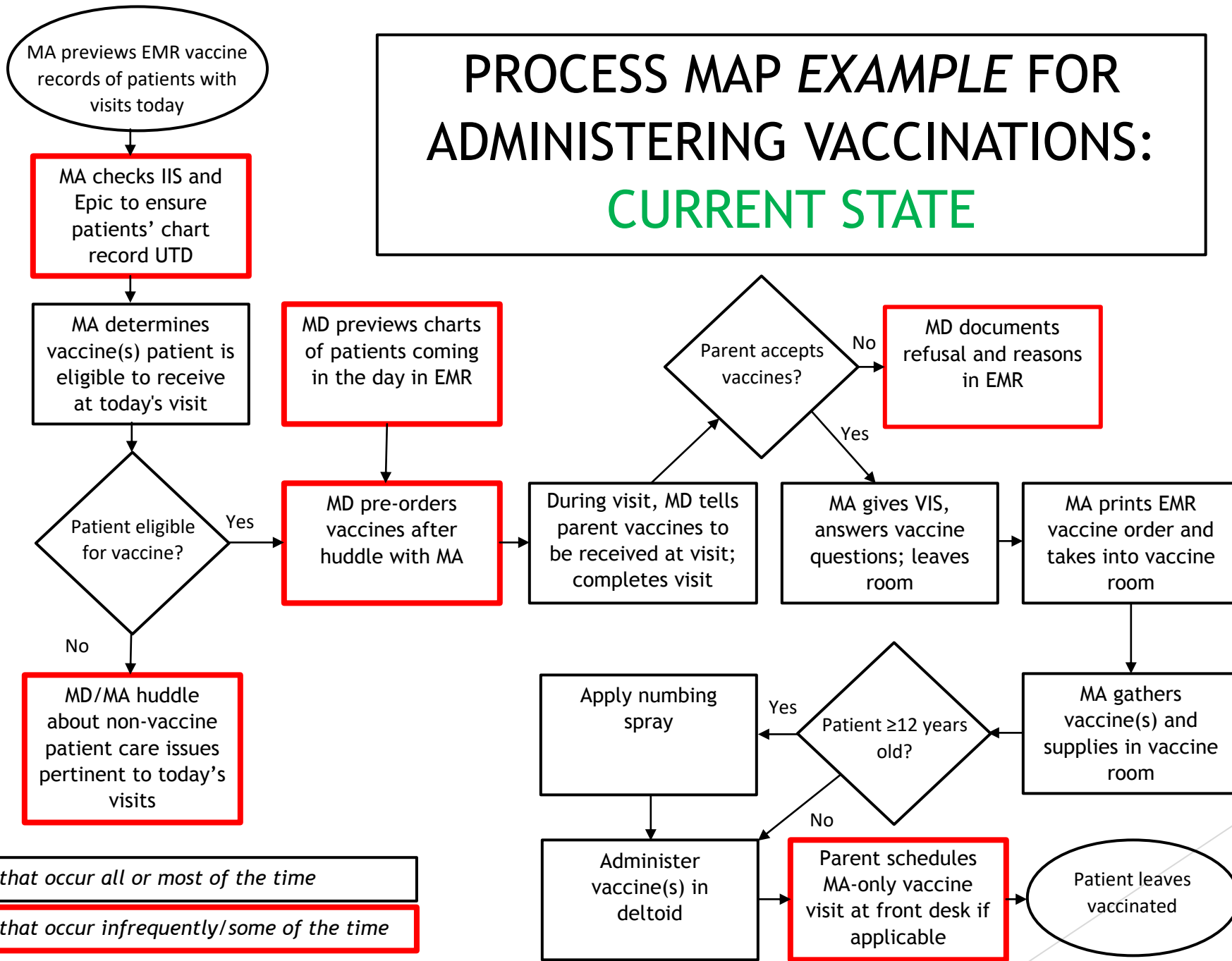
**How?** Equipment

**Where?** Physical space, storage

**When?** Sequence of events

**Variation?** Patient specific issues (e.g., reactions, unique schedules, etc.)

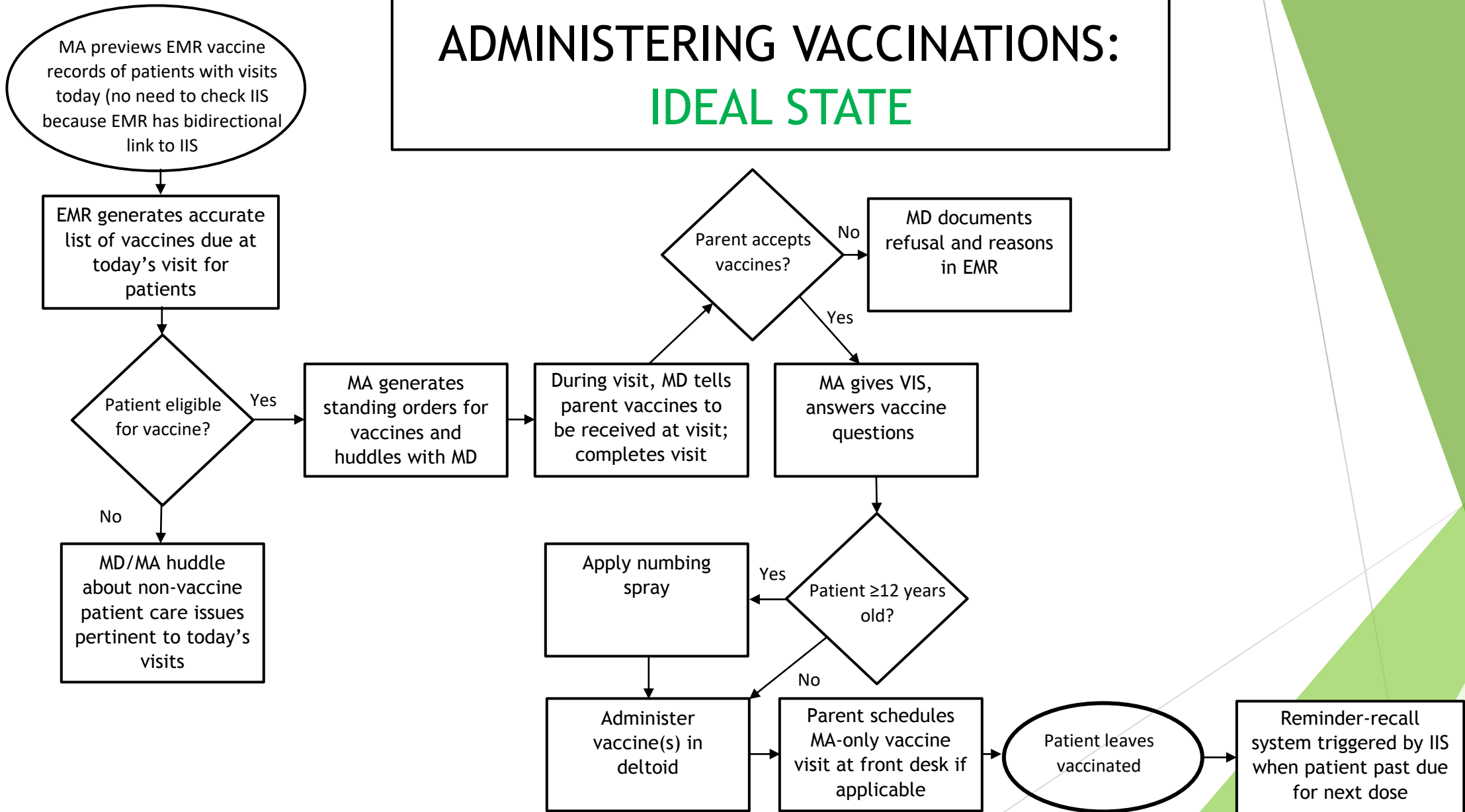
# PROCESS MAP *EXAMPLE* FOR ADMINISTERING VACCINATIONS: **CURRENT STATE**



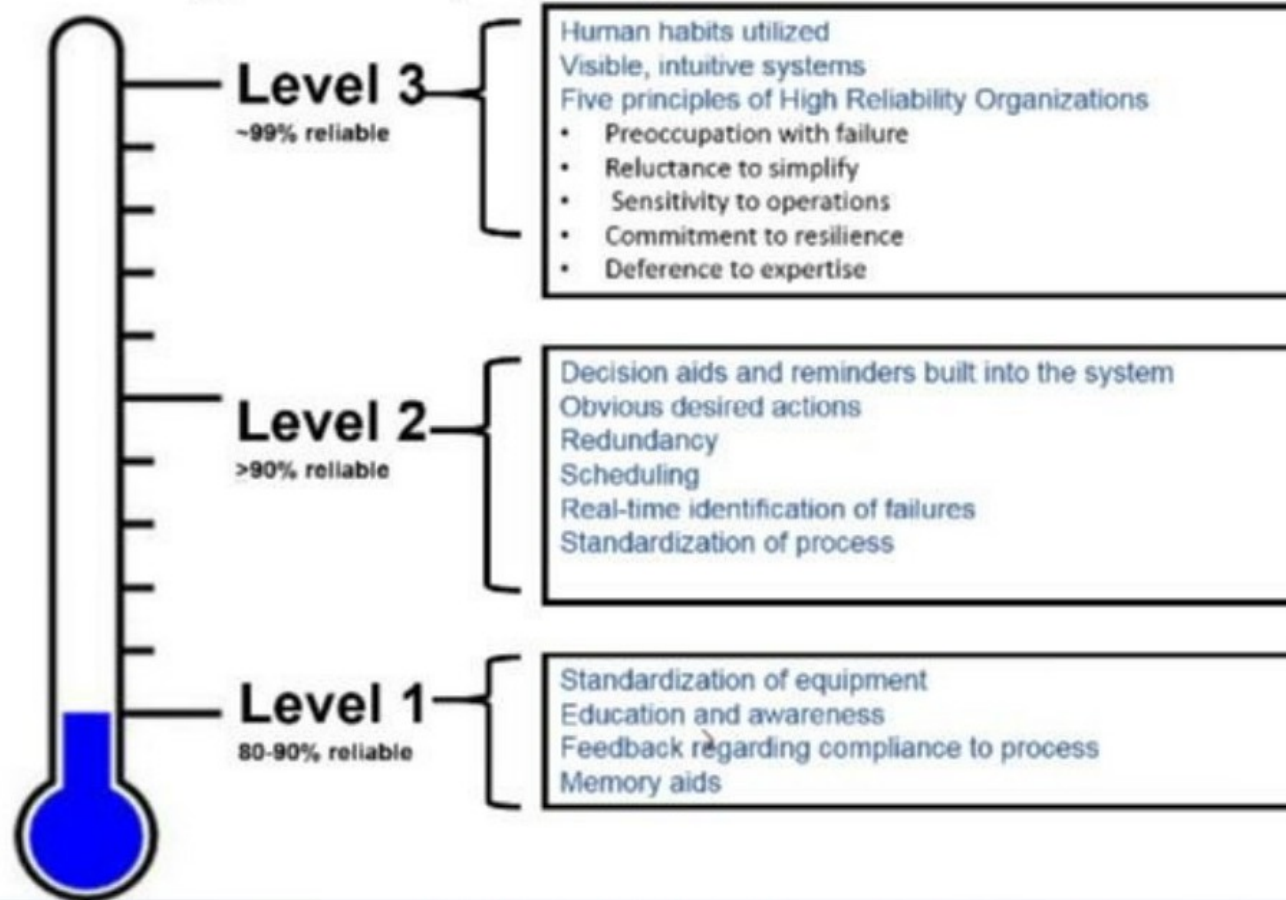
*Steps that occur all or most of the time*

*Steps that occur infrequently/some of the time*

# PROCESS MAP *EXAMPLE* FOR ADMINISTERING VACCINATIONS: **IDEAL STATE**



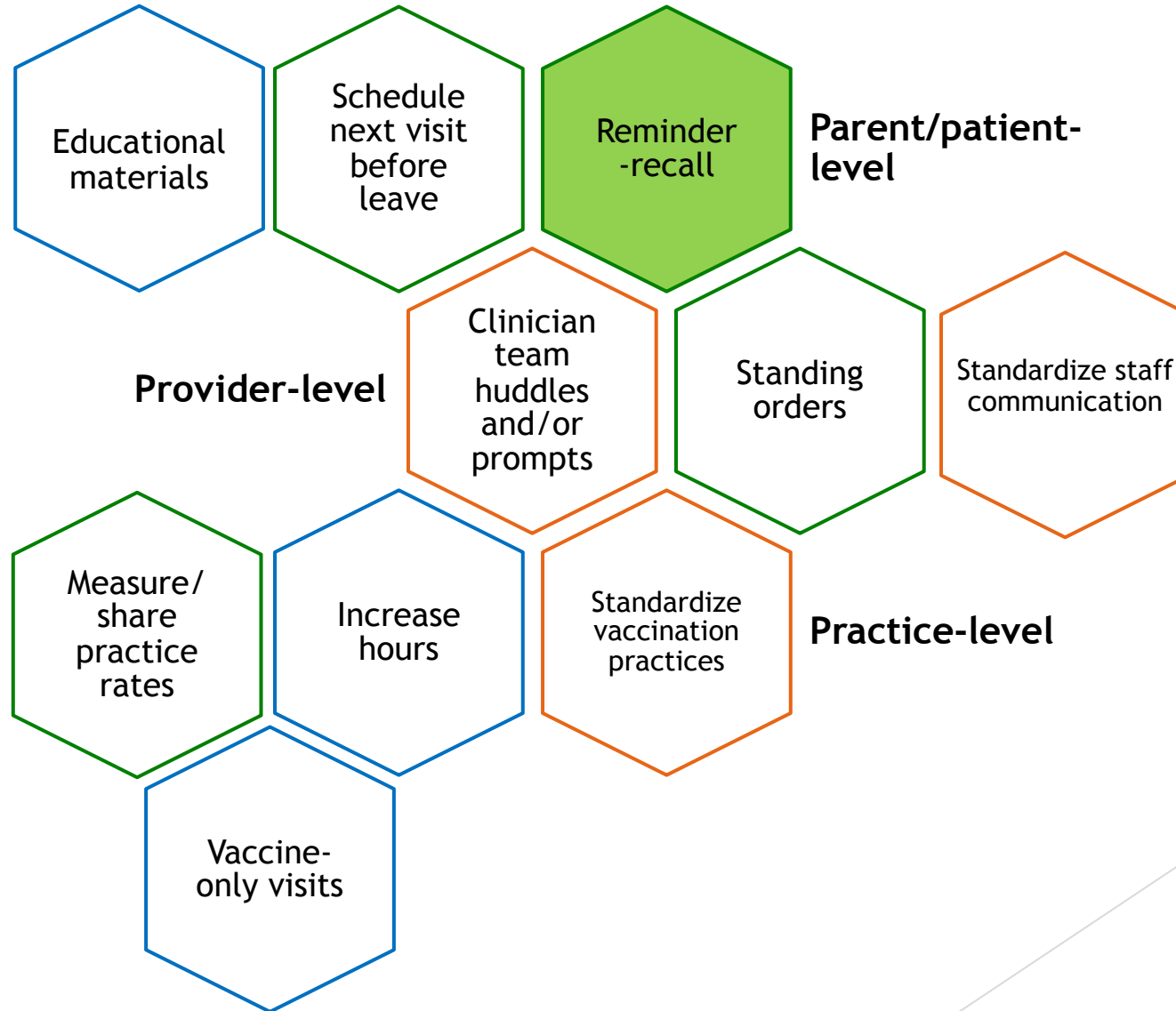
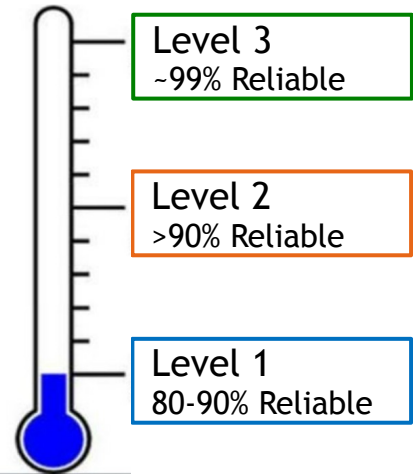
# Increasing Reliability – Apply reliable change concepts to your interventions



#CardiacArrestPrevention



# WA-CHIP Suite of Interventions



# Key Driver Diagram

## Key Driver Diagram

Global Aim

Specific Aim

Attributes of a good aim statement:

- Specific
- Measurable
- Actionable
- Realistic
- Timely

|   | <u>Primary Drivers</u><br><i>(outcomes)</i>                             | <u>Secondary Drivers</u><br><i>(interventions)</i>                      |   |
|---|---|---|---|
| ← | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | ← |
| ← | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | ← |
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| ← | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | <div style="border: 1px solid black; height: 40px; width: 100%;"></div> | ← |

Instructions: Click in the boxes above to enter your MOC Projects Aims and Drivers. Directional arrows may be moved. Delete this box (and attributes of a good aim statement) once you've completed your diagram.



# Key Driver Diagram

- ▶ Helps organize ideas and discover various causes that contribute to the issue you are trying to improve
- ▶ Identifies what you want to change or improve (primary drivers) and how you will improve (secondary drivers or interventions)
- ▶ **Primary drivers** are factors that are part of your system that directly impact the outcome, or aim, of your QI effort
- ▶ **Secondary drivers** are the opportunities for change (interventions) in your QI effort that directly impact the primary driver of your aim
- ▶ When read right to left, the key driver diagram indicates that if you perform the secondary drivers (interventions) then the primary drivers will improve, and the improvement of the primary drivers will satisfy the aim

# WA-CHIP Key Driver Diagram

## Global Aim

To increase childhood and adolescent vaccination rates at participating practices in King County & WA State

## Specific Aim

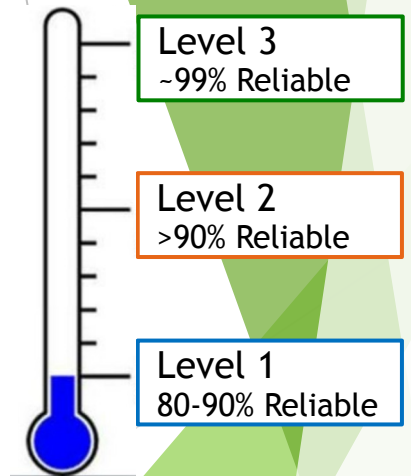
By January 2023, participating practices will decrease missed opportunities for administering vaccines to 4-6 and 11-17 year-old by 20% compared to their practice baseline rate.

### Primary Drivers

- Non-preventive visit
- Lack of concurrent vaccine administration
- Clinician(s) unaware patient is eligible for vaccine(s)
- Clinician(s) defer/forget
- Patient/parent declines
- Vaccine unavailable
- Parent unavailable to consent
- Parent unaware patient needs shots and doesn't make appt

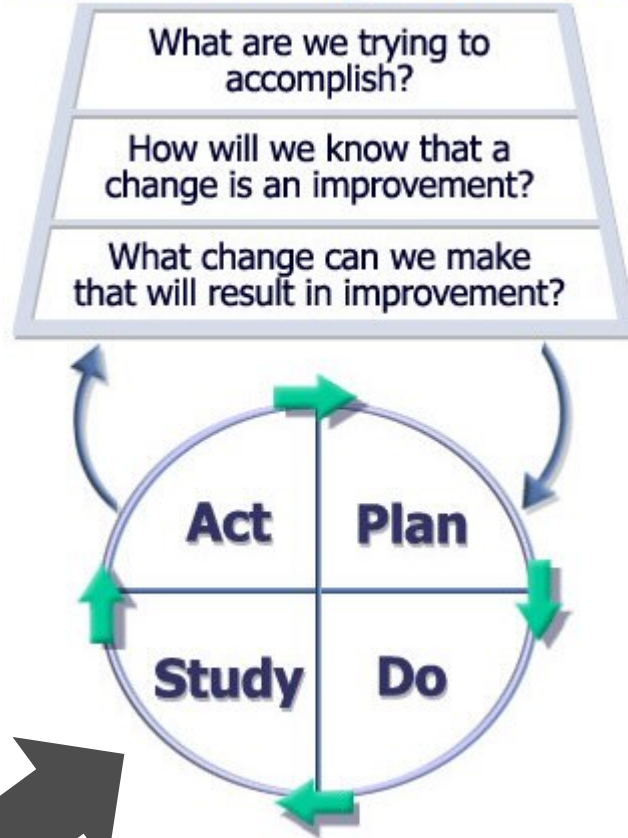
### Secondary Drivers

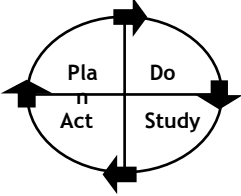
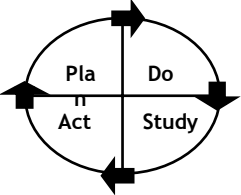
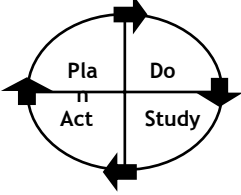
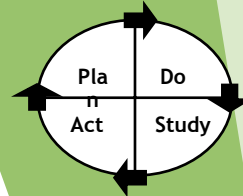
- Clinician team huddles/prompts
- Standardize vaccination practice
- Reminder-recall
- Vaccine-only visits
- Materials for parents/patients to address vaccine hesitancy
- Standardize staff communication about vaccines
- Measure/share practice rates
- Schedule next visit before leave
- Increase practice hours during peak demand
- Standing orders



# PDSA Cycles

## Model for Improvement



|   |  |  |  |
|---|--|--|--|
|  <p><b><u>TEST 1</u></b><br/>           What: Evidence knowledge and application<br/>           Who:<br/>           Where:<br/>           When:<br/>           Who executes:<br/>           Results:</p> |  <p><b><u>TEST 2</u></b><br/>           What: Evidence knowledge and application<br/>           Who (population):<br/>           Where:<br/>           When:<br/>           Who executes:<br/>           Results:</p> |  <p><b><u>TEST 3</u></b><br/>           What: Evidence knowledge and application<br/>           Who (population):<br/>           Where:<br/>           When:<br/>           Who executes:<br/>           Results:</p> |  <p><b><u>TEST 4</u></b><br/>           What: Evidence knowledge and application<br/>           Who (population):<br/>           Where:<br/>           When:<br/>           Who executes:<br/>           Results:</p> |
|---|--|--|--|

# Agenda

- ▶ Welcome and Orientation (7:00-7:30)
- ▶ Vaccination in King County & WA State (7:30-7:45)
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- ▶ Logistics and Next Steps (11:45-12:00)

# Breakout Session: Plan to Improve Your Practice

- ▶ Review your practice processes and data
- ▶ Identify gaps and barriers
- ▶ Discuss implementation of reminder-recall
- ▶ Select 1 additional intervention to implement in your practice
- ▶ Develop process and balancing measures

# Agenda

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# Report Outs

- ▶ In addition to reminder/recall, what other intervention will you start with and why?
- ▶ Do you plan to target one or both age groups?
- ▶ What barriers do you expect to encounter when you launch these interventions?

# Agenda

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# Leading Change in Your Practice



# What is good leadership?

<https://www.youtube.com/watch?v=2dSzjIKtVcA>



## **Box. Values and Principles of High-Functioning Health Care Teams**

### **Shared Values Among Team Members**

#### **Honesty**

Put a high value on open communication within the team, including transparency about aims, decisions, uncertainty, and mistakes.

#### **Discipline**

Carry out roles and responsibilities even when inconvenient, and seek out and share information to improve even when it is uncomfortable.

#### **Creativity**

Be excited by the possibility of tackling new or emerging problems, seeing errors and unanticipated bad outcomes as potential opportunities to learn and improve.

#### **Humility**

Recognize differences in training but do not believe that 1 type of training or perspective is uniformly superior; recognize that team members are human and will make mistakes.

#### **Curiosity**

Delight in seeking out and reflecting on lessons learned and using those insights for continuous improvement.

### **Principles to Guide Team-Based Care**

#### **Clear Roles**

Have clear expectations for each member's functions, responsibilities, and accountabilities.

#### **Mutual Trust**

Earn each other's trust, creating strong norms of reciprocity and greater opportunities for shared achievement.

#### **Effective Communication**

Prioritize and continuously refine communication skills using consistent channels for candid and complete communication.

#### **Shared Goals**

Work to establish shared goals that reflect patient and family priorities and that can be clearly articulated, understood, and supported by all members.

#### **Measurable Processes and Outcomes**

Agree on and implement reliable and timely feedback on successes and failures in both the overall functioning of the team and achievement of specific goals.

Source: Institute of Medicine discussion paper.<sup>2</sup> Informed by the work of the Interprofessional Education Collaborative.<sup>3</sup>

# Leadership During a Crisis

- ▶ Tend to energy and emotion – yours and theirs
- ▶ Connect with individual team members
- ▶ Ensure a focus on both patients and employees
- ▶ Collect and amplify positive messages
- ▶ Emphasize experimentation and learning

# Learning Preferences



| Learning style        | Example tools to engage learning             |
|-----------------------|--|
| Preparing for meeting |  |
| Global                | Provide executive summary or overview        |
| Visual                | Use tables, flowcharts, diagrams             |
| Verbal                | Describe tables/flowcharts/diagrams in words |
|                       | Send written documentation in advance        |
| During meeting        |  |
| Sequential            | Discuss the evidence in a logical order      |
| Sensing               | Discuss systematic process and facts         |
| Intuitive             | Discuss connections that link the facts      |
|                       | Ask for discussion after presenting evidence |

# Team Selection

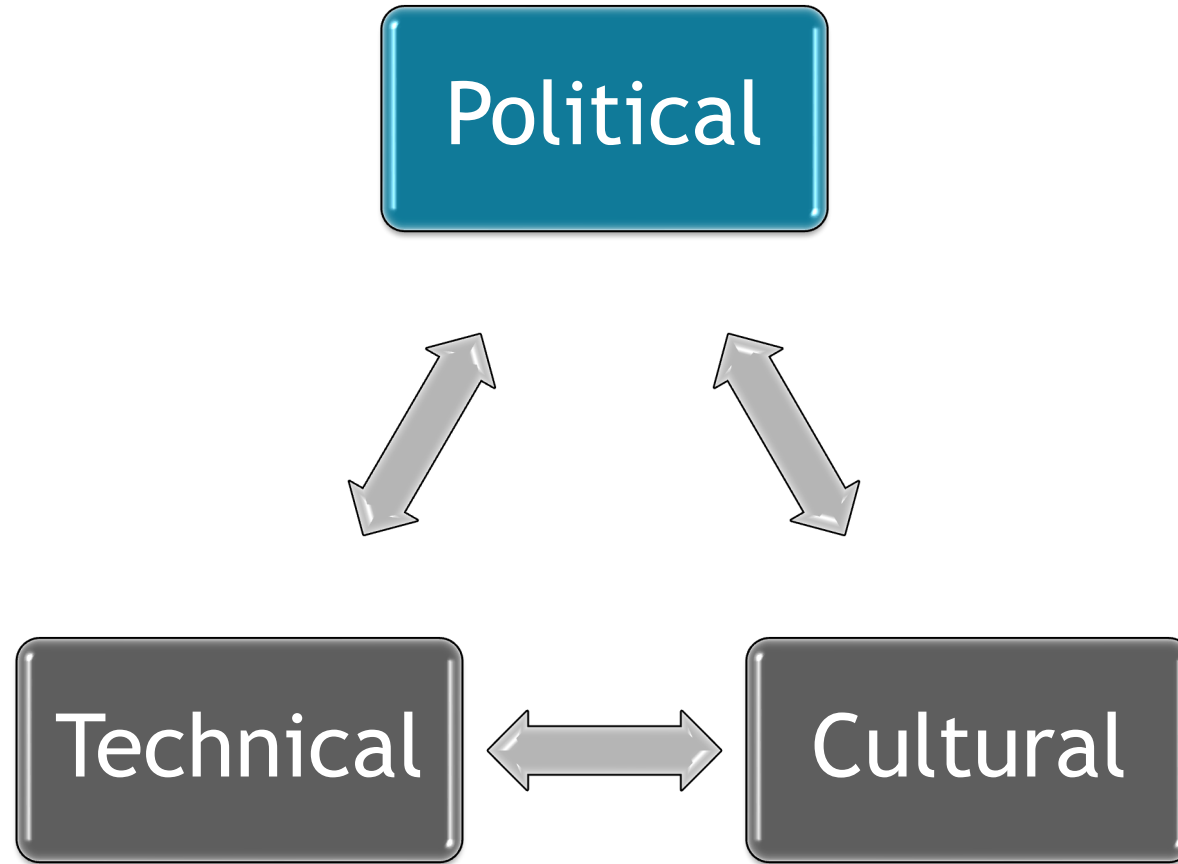
- ▶ Leader
- ▶ Champions
- ▶ Coach
- ▶ Nursing
- ▶ MA
- ▶ Administrative support
- ▶ Data

# Activity

- ◆ What does it take to effectively lead QI teams?
- ◆ What do you anticipate you need to be successful in working with and/or leading a QI team?
- ◆ Who will be/not be on your team? Why or why not?

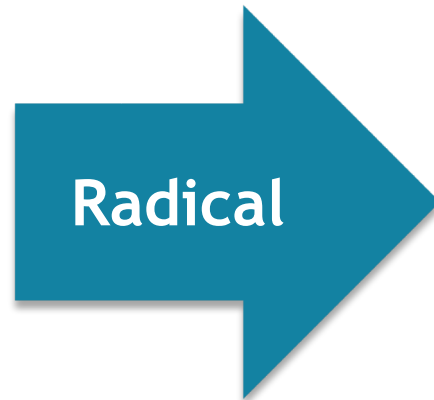


# Types of Change





# Types of Change



# Change Reaction

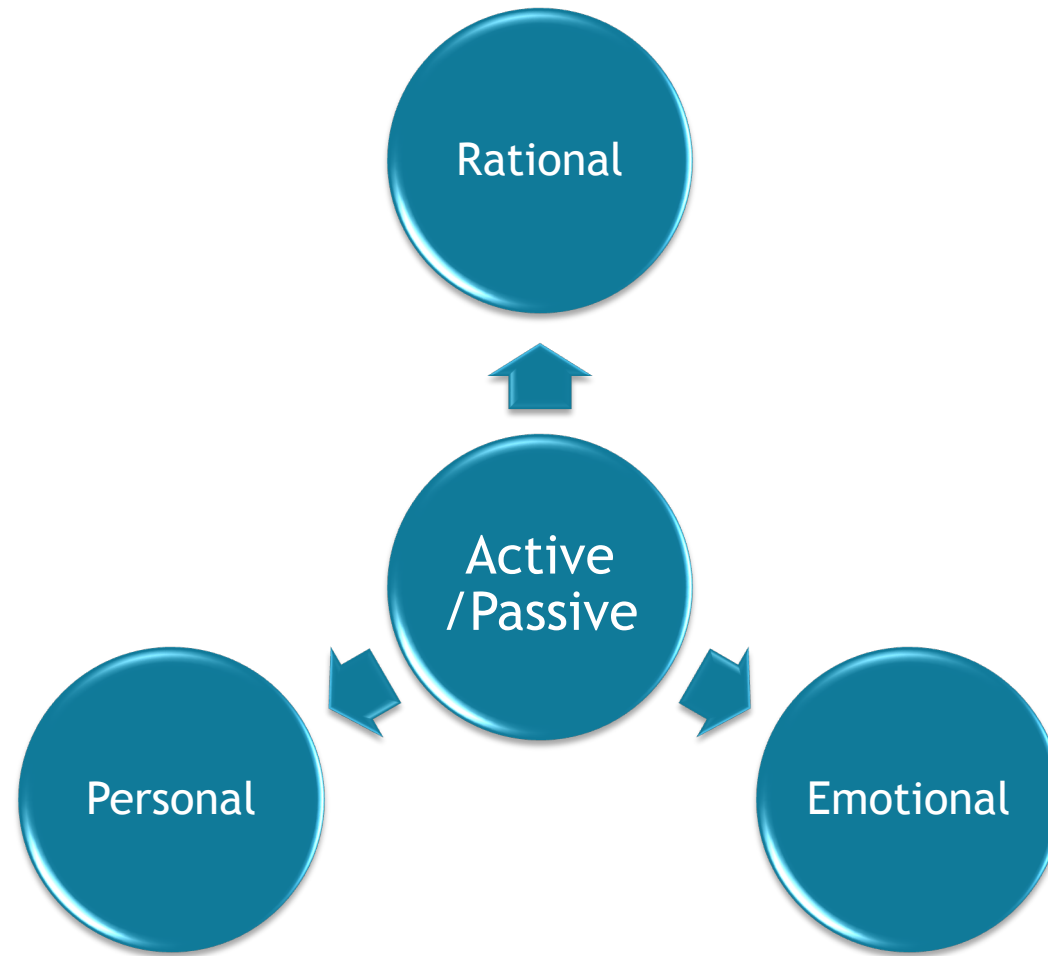
Following



Leading

Resisting

# Change Resistance



# Leading Change

- ◆ Think of a past meeting that was frustrating.
- ◆ What happened? How did you know it was going well or not?
- ◆ How will you prevent that from happening in your meetings



# Past Cohorts - Lessons Learned

Engagement of your clinical and administrative team is KEY: involve them early and often

Behavior change is hard: be forgiving but persistent in trying to make your intervention 'stick'

Expect the unexpected: just when you think you've figured it out how to reduce MOs in your clinic, your clinic will run out of a vaccine!

# Past Cohort Testimonials

“The most helpful component of KCHIP was the in-person and phone meetings with other practice leads. We got so much more out of this QI project by learning from the experiences of other clinics going through the same process than if we had done this alone.”

*-Molly Capron MD, NeighborCare Columbia City*

“This KCHIP project has helped to see how small interventions can make a big difference. I would like to take this learning experience and apply to many other areas in our practice to help with increasing all vaccination rates and see what does and does not work well. This has been valuable to both our patients and us as a practice, and I am grateful we were participants.”

*-Elizabeth Hadland ARNP, Mary Bridge Pediatrics, Covington*



# Doing Work in Teams

- ◆ Meetings tend to be negatively perceived
- ◆ **Top 6 signs that a meeting is in trouble:**
  - ◆ No agenda
  - ◆ No stated time limit
  - ◆ No one responsible for keeping on track
  - ◆ No one taking notes
  - ◆ No agreement on what happens once the meeting break
  - ◆ No accountability for action items

# Homework: Complete the following checklist after your first meeting

1. Did everyone obtain value from this meeting?
2. Were the right people in the meeting?
3. What were the meeting results?
4. What was the energy level? Was there good participation? Were people engaged throughout the meeting?
5. Do the participants have a better shared understanding about the goal and objectives?
6. If the meeting did not go well, what should I do about it?
7. Who can I check in with who would give me candid feedback about leading the meeting?
8. Clear next steps/action items?



# Practice Leader Responsibilities

| WA-CHIP Meetings   | Quality Improvement*   | Data   | Practice Engagement   | Momentum  |
|--|--|--|---|---|
| <ul style="list-style-type: none"> <li>• Cohort calls</li> <li>• QI coach check-ins</li> <li>• Technical assistance meeting (IIS)</li> </ul> | <ul style="list-style-type: none"> <li>• Ensure that project and intervention(s) address global and specific aims</li> <li>• Lead design and implementation of intervention(s)</li> <li>• Oversee data collection to evaluate impact of intervention(s)</li> </ul> | <ul style="list-style-type: none"> <li>• Submit missed opportunity data (32 chart reviews per month)</li> <li>• Submit one process measure survey per month</li> <li>• Ensure pre- and post-participation surveys completed</li> </ul> | <ul style="list-style-type: none"> <li>• Recruit team members at your practice</li> <li>• Schedule, lead, &amp; track attendance at 3 MOC meetings</li> <li>• Conduct additional project meetings, as needed</li> </ul> | <ul style="list-style-type: none"> <li>• Watch recorded webinars and share with your team</li> <li>• Review resources in virtual binder</li> <li>• Plan for project sustainability</li> </ul> |

\*QI coach available for additional support

# MOC: Expectations for Participants

- ▶ Attend  $\geq 3$  practice meetings where project data are reviewed
- ▶ Apply tools and interventions to your practice
- ▶ Collect and review data; give feedback
- ▶ Complete all online MOC forms (links will be sent via email)
- ▶ QI training opportunities (optional)
  - ▶ IHI Open School
  - ▶ “QI Fundamentals” recording/slide deck
- ▶ **MOC Credits:** At successful conclusion of WA-CHIP project, participants will earn 25 Part 4 MOC credits (issued in 2023) through American Board of Pediatrics
- ▶ **CME Credits:** Participants can receive up to 20 CME credits at the end of training

MOC ?s - Contact: [MOC@seattlechildrens.org](mailto:MOC@seattlechildrens.org)

# Sustainability and Spread

- ▶ The goal is to make lasting change and have these QI skills be used to improve other areas of your practice

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# Breakout Session: Leading Change in Your Practice

## Create a team draft list

- ▶ What roles are important?
- ▶ What individuals?

## Create a leadership plan

- ▶ What is your engagement plan? Why is this work important?
- ▶ When is your first, second, and third meeting?
- ▶ How will you make the meeting efficient and fun?
- ▶ How will you create sustainability and spread?

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| Month     | Meetings / Education  |
|-----------|---|
| April     | <ul style="list-style-type: none"> <li>• April 27, 7:00 AM - 12:00 PM: Cohort Kick-off</li> </ul>   |
| May       | <ul style="list-style-type: none"> <li>• May 4-6: WA-IIS technical assistance on reminder-recall</li> <li>• To be scheduled: Practice Meeting #1 (required for MOC)</li> <li>• To be scheduled: Coaching check-in</li> <li>• <b>Start your intervention!</b></li> </ul> |
| June      | <ul style="list-style-type: none"> <li>• June 29, 7:00- 8:00 AM: Cohort Call</li> </ul>   |
| August    | <ul style="list-style-type: none"> <li>• To be scheduled: Coaching check-in</li> <li>• Independent learning: Watch <a href="#">recorded communication webinar</a></li> <li>• August 31, 7:00- 8:00 AM: Cohort Call + Data Review</li> </ul>                             |
| September | <ul style="list-style-type: none"> <li>• To be scheduled: Practice Meeting #2 (required for MOC)</li> </ul>   |
| October   | <ul style="list-style-type: none"> <li>• To be scheduled: Coaching check-in</li> <li>• Independent learning: Watch <a href="#">recorded webinar on maintaining QI momentum</a></li> <li>• October 26, 7:00 - 8:00 AM: Cohort Call + Data Review</li> </ul>              |
| Nov - Dec | <ul style="list-style-type: none"> <li>• To be scheduled: Coaching check-in</li> <li>• December 14, 7:00 - 8:30 AM: Cohort wrap-up + Final data review</li> </ul>   |
| January   | <ul style="list-style-type: none"> <li>• To be scheduled: Practice Meeting #3 (required for MOC)</li> </ul>   |

# Tools and Resources

## Quality Improvement

- ▶ Institute for Healthcare Improvement
  - ▶ [Plan-Do-Study-Act \(PDSA\)](#)
  - ▶ [Introduction to Flowcharting \(Video\)](#)
  - ▶ [Flowcharting Part 2 \(Video\)](#)
- ▶ APA QI Training Modules (<15 min each)
  - ▶ [Using QI Methodology to Improve Vaccination Rates at Your Organization](#)
  - ▶ [Measuring Change](#)
  - ▶ [Using PDSA Cycle and Interpreting Data](#)
  - ▶ [Sustaining Improvement](#)

## Strategies for Increasing Vaccine Uptake

- ▶ [Evidence-Based Strategies to Increase Vaccination Uptake: A Review \(Cataldi et al 2020\)](#)
- ▶ Huddles
- ▶ Standing Orders
- ▶ Provider Vaccine Communication
- ▶ WAIS Reminder/Recall Guide
- ▶ WAIS Coverage Rate Report Guide
- ▶ HPV at 9 Years (Handout, Resources)
- ▶ Standardized Schedule Poster (HPV Vaccination Roundtable)



**QUESTIONS?**



**THANK YOU**

