In compliance with continuing education requirements, all presenters must disclose any financial or other associations with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters as well as any use of unlabeled product(s) or product(s) under investigational use.

CDC, our planners, content experts, and their spouses/partners wish to disclose they have no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters with the exception of the following speakers:

Kristie Marcelle of American Academy of Pediatrics wishes to disclose she is grant funded through an independent Pfizer Grant for the US Immunization Project.

Planning committee discussed conflict of interest with each presenter to ensure there is no bias.

Content will not include any discussion of the unlabeled use of a product or a product under investigational use.

CDC did not accept commercial support for this continuing education activity.
Sanford Health’s HPV Improvement Project

Andrea Polkinghorn, BSN, RN
Immunization Strategy Leader
Education

- Data Transparency
- Sanford Specifics
- Offering the Vaccine
- Disease & Vaccine
Reminder/Recall
Protect your child with immunizations

Immunizations are one of the best ways to keep your child healthy and protected from dangerous illnesses. And while your child received many when they were younger, there are also vaccines recommended for adolescents between 11 and 16.

HPV: For human papillomavirus (HPV) - Prevents certain kinds of cancer.

Tdap: For tetanus, diphtheria and whooping cough - Prevents jaw tightening, muscle aches, tissue swelling and severe coughing.

Meningitis: For meningococcal - Prevents issues with the membranes surrounding the brain and spine.

Call your local Sanford primary care provider to make an appointment or visit sanfordhealth.org keyword: adolescent immunizations. Learn more.
YEAR 2 (2016-2017)
LIFE-SAVING IMMUNIZATIONS

Is your child protected?

If your child is between the ages of 11 and 26, it is recommended he or she receives the following immunizations:

- HPV: Human papillomavirus vaccine
- Tdap: Tetanus, diphtheria and whooping cough vaccine
- MCV: Meningitis vaccine

Call your local Sanford primary care provider to make an appointment.
Sanfordhealth.org, keyword: adolescent immunizations
Geography and Mother Nature
Data Overload
Reminder Phone Calls
Under Performing
OUTCOMES
Adolescent Immunizations
Clinic Level Rates

HPV Zero Doses Given
HPV Series Completion
TDaP
Mening First Dose

Decreased by 30.5%
Increased by 20.5%

Healthy People 2020 Goal
Completed Client Reminders by Type

Year 1 (7 sites)  
- Televox: 20,871
- Mail: 20,705
- Phone call: 0

Year 2 (39 sites)  
- Televox: 20,120
- Mail: 40,106
- Phone call: 2,769
Number of HPV Vaccine Doses Administered by Project Year

Year 1 (7 sites)  | Baseline Year: 1,554 | End of Project Year: 2,986

Year 2 (39 sites) | Baseline Year: 6,883 | End of Project Year: 10,234
Rate of zero dose HPV vaccination among males and females ages 11-26 across participating clinics

![Graph showing rate of zero dose HPV vaccination over time.](image-url)
Rate of HPV vaccination series completion among males and females ages 11-26
Sustainability

- MN Sites
- Annual Education
- No missed opportunities
- VAX Champ
High-Impact e-Letter Targeting Low HPV Vaccine Utilization in VFC Clinics

Jane Pezua, MPH
Adolescent Immunization Coordinator & Health Educator

Rosie Glenn-Finer, MPH
Epidemiologist
Objectives

✓ Briefly describe state of HPV and HPV vaccination in California

✓ Discuss the use of a ratio to assess relative vaccine utilization

✓ Describe how different levels of intervention can improve HPV vaccine utilization

✓ Identify at least two best practices reported by most improved clinics
HPV AND HPV VACCINATION IN CALIFORNIA
Disease Burden: Number of New HPV-Associated Cancers in CA, 2015

- Oropharynx (1718)
- Cervix (1350)
- Anus (747)
- Vulva (301)
- Penis (126)
- Vagina (98)

Source: California Cancer Registry, California Department of Public Health
Estimated Vaccination Coverage Among Adolescents Aged 13-17 Years, CA, NIS-Teen, 2011-2016

<table>
<thead>
<tr>
<th>Survey Year</th>
<th>≥1 Tdap</th>
<th>≥1 MenACWY</th>
<th>≥1 HPV</th>
<th>HPV UTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td>49%</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
METHODS
“Imitation is the sincerest form of flattery.”

- Charles Caleb Colton
California

- Targeted VFC clinics ≤ 1:1 ratio (552/4,000)
- 2017 e-letter
- Reported doses administered (2016)
- Goal 2:1 HPV:Tdap ratio
- VFC Field Representative follow-up

Texas

- All VFC clinics (~2,400)
- 2015 hardcopy letter
- Doses ordered
- Goal 3:1 HPV:Tdap ratio
February 13, 2017

Dear [Provider of Record],

Re: Improving your clinic’s administration of human papillomavirus (HPV) vaccine

Every year, 31,000 men and women are diagnosed with HPV-related cancers in the U.S. The many cancers HPV causes can take decades to develop after a person is exposed, often striking men and women in the prime of life. As a doctor for young patients, you have the power now to prevent these cancers in your patients later by vaccinating them today.

Despite the high effectiveness and excellent safety record of HPV vaccine, less than half of teen girls and less than one third of teen boys in California are fully vaccinated against HPV-associated cancers and disease, leaving 1.5 million girls and boys per year vulnerable to HPV-associated cancers in the future.

In order to better understand HPV vaccine uptake and compliance with ACOG recommendations, California’s VFC program analyzed clinic reported HPV administration data. Given that two doses of HPV vaccine and one dose of Tdap are recommended for 11-12 year olds, the desired HPV:Tdap ratio for vaccine administration is 2:1.1

STOP HPV today. STOP cancer later.

Sincerely,

Sarah Royle, M.D., M.P.H., Chief
Center for Infectious Diseases
Division of Communicable Disease Control, Immunization Branch

*Current Advisory Committee on Immunization Practices (ACIP) recommendations for adolescents: Boys and girls aged 11-12 years are routinely recommended to receive one dose of Tdap (tetanus, diphtheria, and pertussis), two doses of human papillomavirus (HPV) vaccine, and one dose of quadrivalent meningococcal vaccine (MCV4/MenACWY). A second dose of MCV4 is due at 16 years. Additional information on the 2-dose HPV vaccine schedule, please refer to VFC program communications on the December 2016 VFC.
Resources

• **Tips and Tools** flyer
• **Be an HPV Vaccination Champion** webinar
• **VFC Field Representatives**

Archived webinar at [https://youtu.be/lqGG4AC50lg](https://youtu.be/lqGG4AC50lg)
Tips and Tools at [eziz.org/assets/docs/Tips_and_Tools_for_Improving_HPV_Vaccination.pdf](https://eziz.org/assets/docs/Tips_and_Tools_for_Improving_HPV_Vaccination.pdf)
Five Levels of Intervention

- **no visit**: e-Letter only
- **with visit**: e-Letter and **compliance** visit
- **with visit and discussion**: e-Letter, **AFIX** visit, and discussion
Evaluation of Intervention

HPV:Tdap ratio determined using reported doses administered

Jan – Dec 2016

2016

Feb 2017
HPV:Tdap ratio e-letter sent

2017

May 2017
Midway e-letter sent

Feb – Aug 2017
Tdap and HPV vaccine administration data collected

Nov 2017
Follow-up e-letter sent
QUANTITATIVE RESULTS
Results of Ratio Letter (Feb – Aug 2017)

552 clinics received letter

461 ordered vaccine

91 excluded*

274 clinics letter only

74 clinics letter and compliance visit

4 clinics letter and AFIX visit

89 clinics letter, compliance visit, and discussion

20 clinics letter, AFIX visit, and discussion

*ratio could not be calculated because they ordered insufficient doses of HPV and/or Tdap vaccines or were inactivated
Results of Ratio Letter (Feb – Aug 2017)

461
Placed vaccine orders
Results of Ratio Letter (Feb – Aug 2017)

461
Placed vaccine orders

65% (298)
Improved

35% (163)
Did not improve
Results of Ratio Letter (Feb – Aug 2017)

- 461 Placed vaccine orders
  - 65% (298) Improved
  - 35% (163) Did not improve
  - 61% (182) Achieved ≥1:1 ratio
  - 18% (53) Achieved ≥2:1 ratio
Results of Ratio Letter (Feb – Aug 2017)

Average HPV:Tdap ratio

0.61 → 1.06

65% (298)
Improved

35% (163)
Did not improve

61% (182)
Achieved
≥1:1 ratio

18% (53)
Achieved
≥2:1 ratio
Assessing the Association Between Intervention Level and Proportion of Clinics that Improved

Percent of Clinics Showing Improvement (%)

<table>
<thead>
<tr>
<th>Intervention Group</th>
<th>Percent of Clinics Showing Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Only (170/274)</td>
<td>62%</td>
</tr>
<tr>
<td>Letter and Compliance Visit (48/74)</td>
<td>65%</td>
</tr>
<tr>
<td>Letter and AFIX Visit (2/4)</td>
<td>50%</td>
</tr>
<tr>
<td>Letter, Compliance Visit, and Discussion (62/89)</td>
<td>70%</td>
</tr>
<tr>
<td>Letter, AFIX Visit, and Discussion (16/20)</td>
<td>80%</td>
</tr>
<tr>
<td>Total (298/461)</td>
<td>65%</td>
</tr>
</tbody>
</table>
QUALITATIVE RESULTS
Effective Strategies

- Recommend HPV vaccine same way, same day
- Schedule follow-up appointments at first dose
- Encourage staff to strongly recommend HPV vaccination
- Use “HPV vaccine is cancer prevention” message
What Motivated Clinics to Improve Rates?

- Recommendation from VFC Field Representative
- Desire to help protect patients from disease
- Letter informing them of low HPV vaccine utilization
How Can CDPH Best Support Clinics?

• Educate and promote through mass media
• Give clinics feedback and reminders
• Provide parent/patient educational materials
SUMMARY
Lessons Learned

• Quality improvement visit and/or VFC Representative discussion associated with greater increase in ratio
• Letter alone still yields positive results
• Clinics responsive to feedback and reminders

Next Steps

• Share best practices with all VFC clinics
• Apply intervention to other vaccines
• Make clinic-level vaccine utilization data more accessible to VFC clinics

Thank you!

Rosie.Glenn-Finer@cdph.ca.gov
Phone: 510 620 3741

Jane.Pezua@cdph.ca.gov
Phone: 510 620 6209
Change in Mean HPV: Tdap Ratio by Intervention Level

<table>
<thead>
<tr>
<th>Number of Sites</th>
<th>HPV:Tdap Ratio (2016)</th>
<th>HPV:Tdap Ratio (Aug 2017)</th>
<th>Mean Increase in Ratio</th>
<th>95% Confidence Interval</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Only</td>
<td>267</td>
<td>0.610</td>
<td>1.027</td>
<td>0.417</td>
<td>(0.30, 0.53)</td>
</tr>
<tr>
<td>Letter and Compliance Visit</td>
<td>74</td>
<td>0.645</td>
<td>1.210</td>
<td>0.565</td>
<td>(0.33, 0.80)</td>
</tr>
<tr>
<td>Letter and AFIX Visit</td>
<td>4</td>
<td>0.560</td>
<td>0.643</td>
<td>0.080</td>
<td>(-0.19, 0.35)</td>
</tr>
<tr>
<td>Letter, Compliance Visit, and Discussion</td>
<td>86</td>
<td>0.588</td>
<td>1.059</td>
<td>0.471</td>
<td>(0.27, 0.67)</td>
</tr>
<tr>
<td>Letter, AFIX Visit, and Discussion</td>
<td>20</td>
<td>0.630</td>
<td>0.965</td>
<td>0.335</td>
<td>(0.08, 0.60)</td>
</tr>
<tr>
<td>Total</td>
<td>451</td>
<td>0.612</td>
<td>1.057</td>
<td>0.445</td>
<td>(0.36, 0.53)</td>
</tr>
</tbody>
</table>

*Providers who did not order/administer vaccine were excluded from table
Among those sites who improved, what is the distribution of new HPV:Tdap ratios?

<table>
<thead>
<tr>
<th></th>
<th>Number of sites who improved</th>
<th>Ratio Improved to 1:1-2:1</th>
<th>Ratio Improved to ≥ 2:1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Only</td>
<td>170</td>
<td>73 (40.6%)</td>
<td>28 (16.5%)</td>
</tr>
<tr>
<td>Letter and Compliance Visit</td>
<td>48</td>
<td>22 (45.8%)</td>
<td>13 (27.1%)</td>
</tr>
<tr>
<td>Letter and AFIX Visit</td>
<td>2</td>
<td>1 (50.0%)</td>
<td>0 (0.0%)</td>
</tr>
<tr>
<td>Letter, Compliance Visit, and Discussion</td>
<td>62</td>
<td>29 (46.8%)</td>
<td>10 (16.1%)</td>
</tr>
<tr>
<td>Letter, AFIX Visit, and Discussion</td>
<td>16</td>
<td>4 (25.0%)</td>
<td>2 (12.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>298</td>
<td>129 (43.3%)</td>
<td>53 (17.8%)</td>
</tr>
</tbody>
</table>

*Providers who did not order/administer vaccine were excluded from table*
Proportion of Clinics that Demonstrated Improvement in their HPV:Tdap Ratios after Receiving Visit

<table>
<thead>
<tr>
<th></th>
<th>Number (%) Improved</th>
<th>95% Confidence Interval</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance Visit</td>
<td>110/163 (67.5%)</td>
<td>(60.3%, 74.8%)</td>
<td></td>
</tr>
<tr>
<td>AFIX Visit</td>
<td>18/24 (75.0%)</td>
<td>(57.5%, 92.3%)</td>
<td>0.46</td>
</tr>
<tr>
<td>Total</td>
<td>128/187 (68.5%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Compared to a compliance visit
What barriers did clinic encounter?

• Parental objection/misinformation
• Non-compliance
• Not required for school
Best Practices from the Chapter Quality Network (CQN) US Immunization Quality Improvement Project

Kristie Marcelle, MSW
CQN US Immunization Project Manager
National Immunization Conference
May 17, 2018
Commercial Interest Disclosure

Kristie Marcelle, MSW

I have a relationship with commercial interests:
- Salary Support: Pfizer Independent Grant

I do not intend to discuss an unapproved/investigative use of a commercial product or device
CQN WORKS AT THREE LEVELS
BASED ON IHI BREAKTHROUGH SERIES

- Execute large-scale quality improvement projects
- Build capacity to engage in QI work with practices and develop state partners
- Improve care practices and child health outcomes
CHAPTER QUALITY NETWORK (CQN)  
US IMMUNIZATION PROJECT  
2017-2018

60 pediatric practices  
270 clinical participants  
5 States/ 6 AAP Chapters
  • California: Orange Co  
  • California: Los Angeles  
  • Georgia  
  • New Jersey  
  • New York: Brooklyn  
  • Oklahoma
**PROJECT OVERVIEW**

- Project Incentives included Performance Improvement Continuing Medical Education (PI CME), and Maintenance of Certification (MOC) Part 4 credit.

- Each pediatric practice recruited a team of 3-5 individuals (e.g. MD, RN, MA, etc.)

- QI work led by lead physician in each practice; project lead by a national team of experts

- Providers & clinical staff
  - use quality improvement methodology to conduct small scale tests via Plan-Do-Study-Act (PDSAs)
  - Participate in monthly calls with practices within their state/geographic area and share learnings with each other (eg. PDSAs testing results)
  - Participate in virtual & in-person learning sessions
Institute for Healthcare Improvement Breakthrough Series Collaborative Model
Chapter Quality Network Project
(24-month timeframe design to full implementation)

Select Topic
IZ Design
Phase

Expert Meeting

Develop Framework & Changes
Planning Group

Participants

Pre-Work

Learning Session 1
1-day in-person meeting

Action Period 1

Learning Session 2
Webinar

Action Period 2

Learning Session 3
1-day in-person meeting

Action Period 3

Learning Session 4
Webinar

Project Supports: monthly chapter phone calls with data review, monthly data reports, access to an ADHD data collection system, email communication, networking opportunities

PROJECT AIM

Make sustainable and measureable office process improvements in participating practices to improve vaccination rates for children 19-35 months from March 2017-February 2018

Area of Focus

• Reduce Missed Opportunities To Vaccinate
• Increased Utilization of IIS Systems
• Robust Reminder Recall Systems
MEASURES

Missed Opportunity Rate
• Percentage of patients 19-35 months of age that do not receive all eligible vaccines when they present in the office
• Goal: Reduce missed opportunities; specific goals set by practice

Combination 3 Vaccination Rate (4:3:1:3:3:1:4)
• Percentage of children 19-35 months of age who are up-to-date on ALL of the following:
  • Diphtheria, tetanus, and acellular pertussis (DTaP)
  • Polio (IPV)
  • Measles, mumps, and rubella (MMR)
  • H influenza type B (Hib)
  • Hepatitis B (HepB)
  • Chicken pox (VZV)
  • Pneumococcal conjugate (PCV)
• Goal: 80%
MEASURES

Individual Vaccination Rates
• Percentage of patients up-to-date on each of the following vaccines:
  • Diphtheria, tetanus, and acellular pertussis (DTaP)
  • Polio (IPV)
  • Measles, mumps, and rubella (MMR)
  • H influenza type B (Hib)
  • Hepatitis B (HepB)
  • Chicken pox (VZV)
  • Pneumococcal conjugate (PCV)
• Goal: 90% for each

Patient Recalls
• The total number of patients 19-35 months of age who were overdue for a vaccination and received a recall notification
• Goal: Increase patient recalls; specific goals set by practice
KEY DRIVERS TO IMPROVE IMMUNIZATION RATES

Practice Drivers

1: Accountable Leadership
2: Team Based Care
3: Decrease Missed Opportunities
4: Population Level Approaches
5: Peer to Peer Learning

A practice driver is a key action or ‘lever’ where there is belief that these actions collectively will lead to improved outcomes.
MONTHLY VACCINE COVERAGE RATES

• New York City (CIR-City Immunization Registry) provided practice coverage rates each month & provided CIR technical assistance on monthly practice calls

• Oklahoma Registry (OKIIS-Oklahoma Immunization Information System) provided practice coverage rates each month and technical assistance as needed

• Georgia (GRITS- Georgia Registry of Immunization Transactions) practices utilized GRITS to pull their practice coverage rates each month
MONTHLY VACCINE COVERAGE RATES (CON’T)

• California (CAIR-California Immunization Registry) was consolidating several state registries during project

• The CAIR2 migration impacted the ability for Southern California practices to use their registry for pulling coverage rates

• California practices used a variety of systems for data collection including CAIR1, CAIR2, EHR, and manual counts
MONTHLY MISSED OPPORTUNITY RATE

• Each practice calculated their monthly missed opportunity rate via a randomized chart audit for 10 eligible patients using the (4-3-1-3-3-1-4) series

• Some practices had fewer than 10 eligible patients

• Project goal was to decrease missed opportunity rate from baseline rate

• Project included 13 cycles of data collection
Top 10 Immunization Interventions
**TOP 10 INTERVENTIONS**

1. Requiring vaccination records at initial appointment
2. Reviewing vaccination status at all visits
3. Vaccinating at acute visits
4. Integrating registry into daily workflow
5. Utilizing non-confrontational communication with parents
6. Implementing a recall system
7. Ensuring accurate patient lists
8. Implementing standing orders for routine and ‘shot only’ visits
9. Clinician & staff training on vaccine office systems and communication strategies
10. Using data and rapid cycle testing to continuously improve
Pre, During, Post Visit Planning

Patient Population & Communication

Reliable Vaccination Systems

Culture of Improvement
Requiring vaccination records at initial appointment

Create office policy that any new patient is required to submit their previous immunization history prior to an appointment being made. By doing this, practices always had an accurate record of vaccinations due on that first visit.

Pre, During, Post Visit Planning
INTERVENTION #2

Review vaccine records at every visit

Having Immunization record reviewed and available for all patients regardless of reason for visit.

“We have learned and will maintain daily checks of patient vaccine status for well and sick visits.”
—Georgia Chapter, QI team member

Pre, During, Post Visit Planning
INTERVENTION #3

Vaccinating at acute visits

Medical assistants reviewed immunization status at all visits and developed prompts that say “Immunizations needed” on charts to remind providers.

“It is now considered standard practice within our organization to review immunizations at all sick visits for children aged 19-35 months.” – California 4 Physician

Pre, During, Post Visit Planning
Integrating registry into daily workflow

Direct Connection to registry by developing a relationship with a “real” individual.

Components of the project we found most valuable was learning to use the City Immunization Registry (CIR) more effectively.” —New York 2 Physician

Pre, During, Post Visit Planning
INTERVENTION #5

Utilizing non-confrontational communication with parents

Learn from a national expert regarding non-confrontational communication techniques

“Address parents concerning immunizations as if always expecting them to accept them”

“There were several components of the CQN project that was very valuable to our practice but most important of all was how we can communicate to our parents about the need for immunizations without antagonizing them.” –Georgia Chapter Physician

Patient Population & Communication
INTERVENTION #5

Utilizing non-confrontational communication with parents

- Cognitive Ease
- Natural Assumption
- Identity Strategy
- Advantageous Terms

Patient Population & Communication
“Excellent presentation on vaccine hesitancy and have already used some of the techniques”

“I will be less confrontational with antivaxxers!”

“Quoting scientific facts may backfire on you!”

“Dr Hempstead’s talk was very helpful. I have already started to use the techniques he demonstrated. His tips for communication without communication were very helpful”

“Role playing was an extremely interactive tool that was enjoyable, kept us all very involved, and allowed learning on a whole new level”

“Importance of mentioning the "not required for school" immunizations first to emphasize importance. Saying "and" instead of "but"”

“….Especially learned not to "debate" or keep trying to give more explanations“

“I really enjoyed the presentation! I was able to take away some very practical pearls that will improve my patient-family-provider interactions and enhance my care delivery quality as a whole.”

“I feel very well equipped in discussing immunizations with parents who are unsure about vaccines.”
INTERVENTION #6

Implementing a reminder/recall system

Utilize various methods of recall, including text, phone, postcards. Work with IIS when possible to implement a regular system.

“We will continue making reminder phone calls/sending reminder messages via portal and testing the best method.” – California 2 Physician

Patient Population & Communication
INTERVENTION #7

Ensuring accurate patient lists

Remove inactive patients and clean up IIS. **Running reports** regularly to review patients that have “moved or gone elsewhere”

“We will continue to clean up our registry as a result of this project.” –Georgia Chapter Physician

Patient Population & Communication
Implementing Standing Orders for Routine/Follow up “Vaccination Only” visits

Practices solidified their standing orders for vaccines and extended their appointment calendar so that shot-only visits could be made upwards of a year in advance. This allowed for easier scheduling of vaccines given in a series (i.e. HPV)

“As a result of this project we plan to maintain the use of on influenza vaccine status at ALL visits.”
–Oklahoma Chapter Physician

Reliable Vaccination Systems
INTERVENTION #9

Staff and Clinician training for entire practice

Some practices developed and implemented a **educational program** for the **entire staff** on reviewing shot records, intervals and processes.

“This project engaged my whole team- front desk to providers. Each of the team players, saw how valuable their contribution was.” - **New York 2 Physician**

Reliable Vaccination Systems
Using data and rapid cycle testing to continuously improve

“We will do PDSA testing so we can continue to improve protocols and orders that we already have in place”.

“...we will continue PDSA testing as well as changes in workflow and EMR flags”

“We have been inspired to sustain our improvement efforts. I feel that we were very empowered to effect changes”
Data Results: Where Did We Land
# Coverage Rates

## Heat Map:
Coverage Rates Goals Reached

<table>
<thead>
<tr>
<th></th>
<th>4:3:1:3:3:1:4 Composite 80%</th>
<th>DTaP 90%</th>
<th>IPV 90%</th>
<th>MMR 90%</th>
<th>Hib 90%</th>
<th>HepB 90%</th>
<th>VZV 90%</th>
<th>PCV 90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>California: Greater Los Angeles Area</td>
<td>65%</td>
<td>67%</td>
<td>84%</td>
<td>83%</td>
<td>83%</td>
<td>86%</td>
<td>83%</td>
<td>76%</td>
</tr>
<tr>
<td>California: Orange County</td>
<td>66%</td>
<td>71%</td>
<td>85%</td>
<td>84%</td>
<td>89%</td>
<td>80%</td>
<td>84%</td>
<td>76%</td>
</tr>
<tr>
<td>Georgia</td>
<td>84%</td>
<td>86%</td>
<td>96%</td>
<td>93%</td>
<td>94%</td>
<td>96%</td>
<td>93%</td>
<td>92%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>74%</td>
<td>79%</td>
<td>94%</td>
<td>88%</td>
<td>95%</td>
<td>92%</td>
<td>89%</td>
<td>83%</td>
</tr>
<tr>
<td>New York: Brooklyn</td>
<td>87%</td>
<td>75%</td>
<td>92%</td>
<td>94%</td>
<td>86%</td>
<td>89%</td>
<td>90%</td>
<td>85%</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>81%</td>
<td>82%</td>
<td>94%</td>
<td>90%</td>
<td>88%</td>
<td>94%</td>
<td>90%</td>
<td>88%</td>
</tr>
</tbody>
</table>

### Key
- **Met goal**
- **<10% of goal**
- **>10% from goal**
REFLECTIONS/CONCLUSIONS

• Chapters and practices all started from very different places

• These 10 interventions represent a broad set of strategies implemented across the CQN network

• Need for future opportunities to collaborate with IIS partners
Contact Information:
American Academy of Pediatrics (AAP)
Kristie Marcelle, MSW
kmarcelle@aap.org, 630-626-6554