

# Staff Spotlight!

## Public Health Detailing Program

Improving Colorado's Kindergarten MMR and DTaP Immunization Rates

May 22, 2024

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**COLORADO**  
Department of Public  
Health & Environment

# Presentation objectives:

- Provide background information on the Public Health Detailing Program
- Define Public Health Detailing
- Share program objectives/focus and provider selection criteria
- Discuss program evaluation/data
- Demonstrate an abbreviated Public Health Detailing visit
- Highlight partnered reminder/recall
- Share lessons learned and next steps



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# Background

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# Background - Where it all began

- Initial idea and foundational work for a Public Health Detailing Program started in 2019.
- The program was founded in response to declining vaccination rates and increasing exemption rates.
- Public Health Detailing Program was drastically interrupted by COVID-19 pandemic in 2020 and never officially started.

# Background - Where we are now

- In early 2023 applied for additional funding to hire a contract nurse as a Public Health Detailer and began preparations to start project again.
- National kindergarten vaccination coverage data continues to show a steady decline for all vaccines.
- Multiple measles outbreaks and one paralytic polio case reported in recent years.
- Colorado 2022-23 school data showed pronounced decreases in coverage rates among kindergartners.
- MMR coverage among kindergartners the lowest since the 2017-18 school year.
- The PH Detailing program is one of the specific strategies to increase MMR rates for our Wildly Important Goal.

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# Public Health Detailing defined

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# Detailing defined

Public Health Detailing is an evidence-based strategy to encourage clinical practice change through brief, educational, one-on-one provider visits.

The goals are to develop relationships between providers and public health agencies, share information, and change clinical practices, resulting in increased immunization rates.

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# Program objectives/focus

# Provider selection criteria

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# Program objectives

- Develop a Public Health Detailing Program to educate and encourage immunization best practices with high impact immunization providers\*.
  - By June 2024 conduct Public Health Detailing visits (four visits over a 12 month timeframe) with at least 50 \*immunizing providers with high numbers of kindergarten age patients (>50) and low kindergarten MMR vaccination coverage (<80%).
  - By June 2024 implement IIS-based reminder/recall in collaboration with and on behalf of at least five immunizing providers participating in the Public Health Detailing Program.

# Project focus

- Short term focus: Work with providers to improve CIIS patient management practices to increase the number of current kindergarten age patients who are up-to-date for MMR and DTaP vaccination.
- Long term focus: Enhance overall vaccine practices to increase and sustain immunization rates over time.

# Clinic selection

- Clinic selection was determined by the total number of kindergarten age patients associated with the clinic and <80% MMR up-to-date coverage rate.
  - When data was initially evaluated in early 2023, there were 66 clinics in CIIS with >300 kindergarten age patients.
    - 41 of these clinics had <80% up-to-date MMR coverage rate; these clinics became the primary focus of the PH Detailing program.
    - More than 25% of these clinics were from a single county; LPHA outreach was initiated with this county for increased awareness.
  - Additional clinics included in the program were clinics with at least 50 kindergarten age patients and <80% up-to-date MMR rate *or* clinics associated with a larger health system where one or more clinics in the health system met the criteria.



# IQIP + PH Detailing

- PH Detailing added as a customized IQIP strategy (i.e., Improving Kindergarten Vaccination Rates in Colorado).
- PH Detailing provider selection criteria used as IQIP provider selection criteria for IQIP PY5 (July 1, 2023-June 30, 2024).
- Every provider enrolled in PY5 IQIP received the option to participate in PH Detailing.
- 80.8% or 97 out of 120 IQIP enrolled providers opted to participate in PH Detailing as one of their IQIP strategies.
- Some IQIP providers from PY4 were invited to participate in PH Detailing if they met the PH Detailing provider selection criteria.
- 26 out of 153 PH Detailing enrolled providers were NOT dual enrolled in IQIP.



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# Program evaluation / data

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# Public Health Detailing data

- In early 2023, we pulled clinic level data for 2023-24 kindergarten-aged individuals who were active at the jurisdiction and clinic level in CIIS.
- Baseline MMR (and DTaP) rates as of July 1, 2023 were calculated based on doses entered in CIIS as of that date.
- An internal provider level dashboard displaying patient-level data was created.





# Public Health Detailing dashboard



## Public Health Detailing

The baseline cohort includes 2023-24 Kindergarten-aged patients in the Colorado Immunization Information System (CIIS) (turned five years old after Oct. 1, 2022 and will turn five years old on or before Oct. 1, 2023) who were active at the clinic and jurisdiction level. Baseline cohort inclusion, MMR status, and DTaP status were evaluated on July 1, 2023. Current cohort inclusion, MMR status, and DTaP status were evaluated on May 17, 2024. Because the current cohort is based on an updated evaluation of active patients in CIIS, the total number of Kindergarten-aged patients included in the current cohort may differ from the total number included in the baseline cohort.

The accuracy of MMR and DTaP rate estimates is dependent on the completeness and accuracy of the data in CIIS. Missing vaccinations in CIIS will impact the resulting rate estimates. Also, due to out of date clinic statuses in CIIS, the number of active patients assigned to a clinic in CIIS may not accurately represent the true clinic patient population.

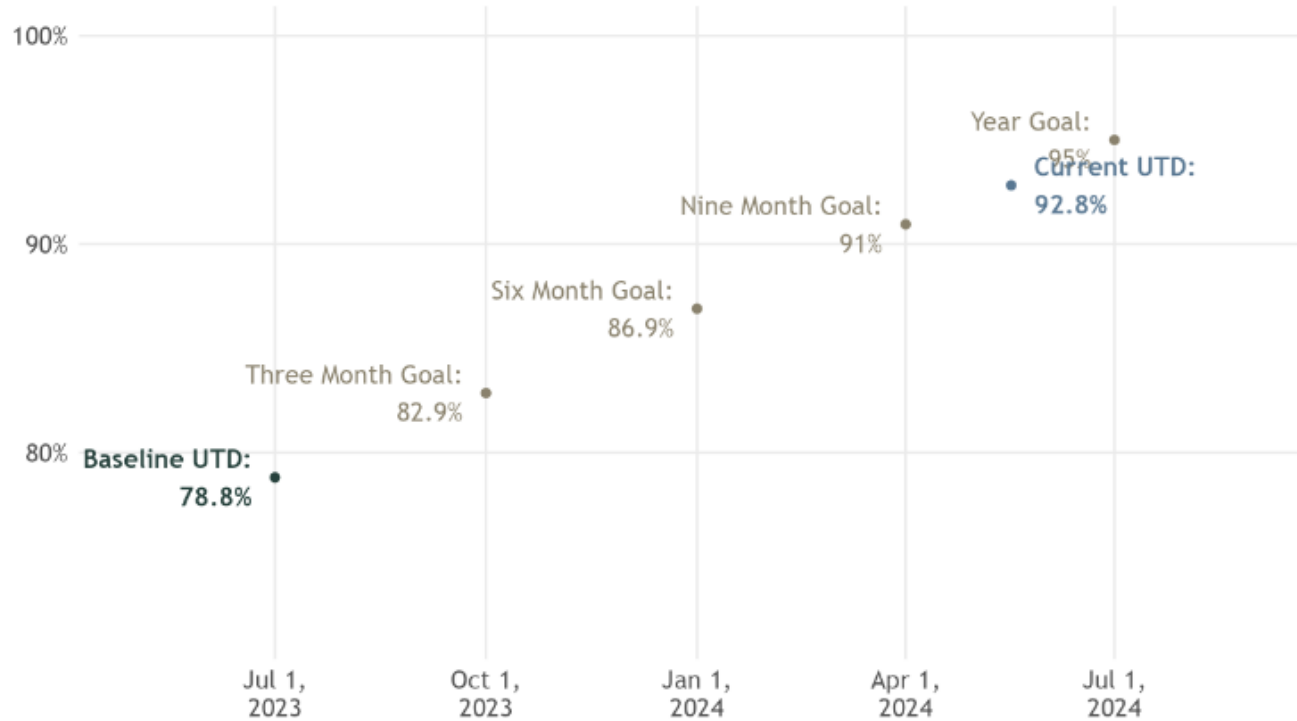
Select a clinic from the menu below. Graphs are click to download.

- ARDAS FAMILY MEDICINE (1633, Arapahoe County)
- ARVADA PEDIATRIC ASSOCIATES NORTH (641, Broomfield County)
- ARVADA PEDIATRIC ASSOCIATES, PC (720, Jefferson County)
- ASPEN PARK PEDIATRICS (430, Jefferson County)
- ASSOCIATES IN FAMILY MED FOXTRAIL (1030, Larimer County)

# Public Health Detailing dashboard example

## MMR

	Total K-aged Patients	Not Up to Date	Up to Date	Percent Up to Date
Baseline (Jul 1, 2023)	217	46	171	78.8%
Current (May 17, 2024)	209	15	194	92.8%



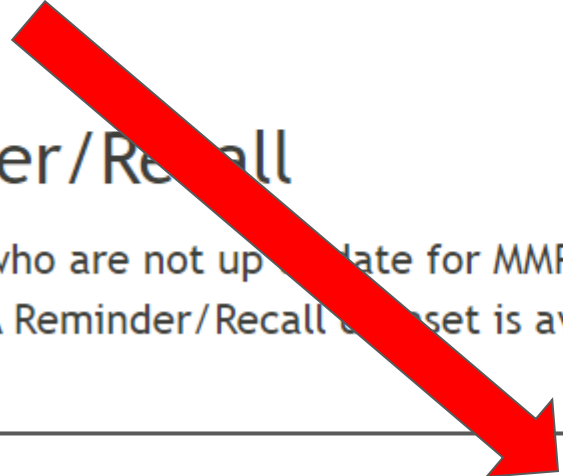
# Public Health Detailing clinic population datasets

## Clinic Population

519 Kindergarten-aged patients are assigned to ADVANCED PEDIATRIC ASSOCIATES CENT (154, Arapahoe County) in CIIS. A clinic population dataset is available for [download](#).

## Reminder/Recall

19 patients who are not up to date for MMR and/or DTaP are available for Reminder/Recall outreach (18 both, 1 MMR only, and 0 DTaP only). A Reminder/Recall dataset is available for [download](#).



	B	C	D	E	F	G	H	I	J	K
	first_name	last_name	dob	most_recent_vaccination_date	mmr_status	dtap_status	do_not_send	number	email_address	language
4567	Sally	Test	10/5/2017	11/5/2022	UTD	UTD	N	NA	NA	NA
4785	Bobby	Test	8/15/2018	9/14/2022	UTD	UTD	N	NA	NA	NA
5875	Charles	Test	10/21/2017	1/2/2024	UTD	UTD	N	NA	NA	NA
5464	Amelia	Test	12/12/2017	1/26/2024	UTD	UTD	N	NA	NA	NA



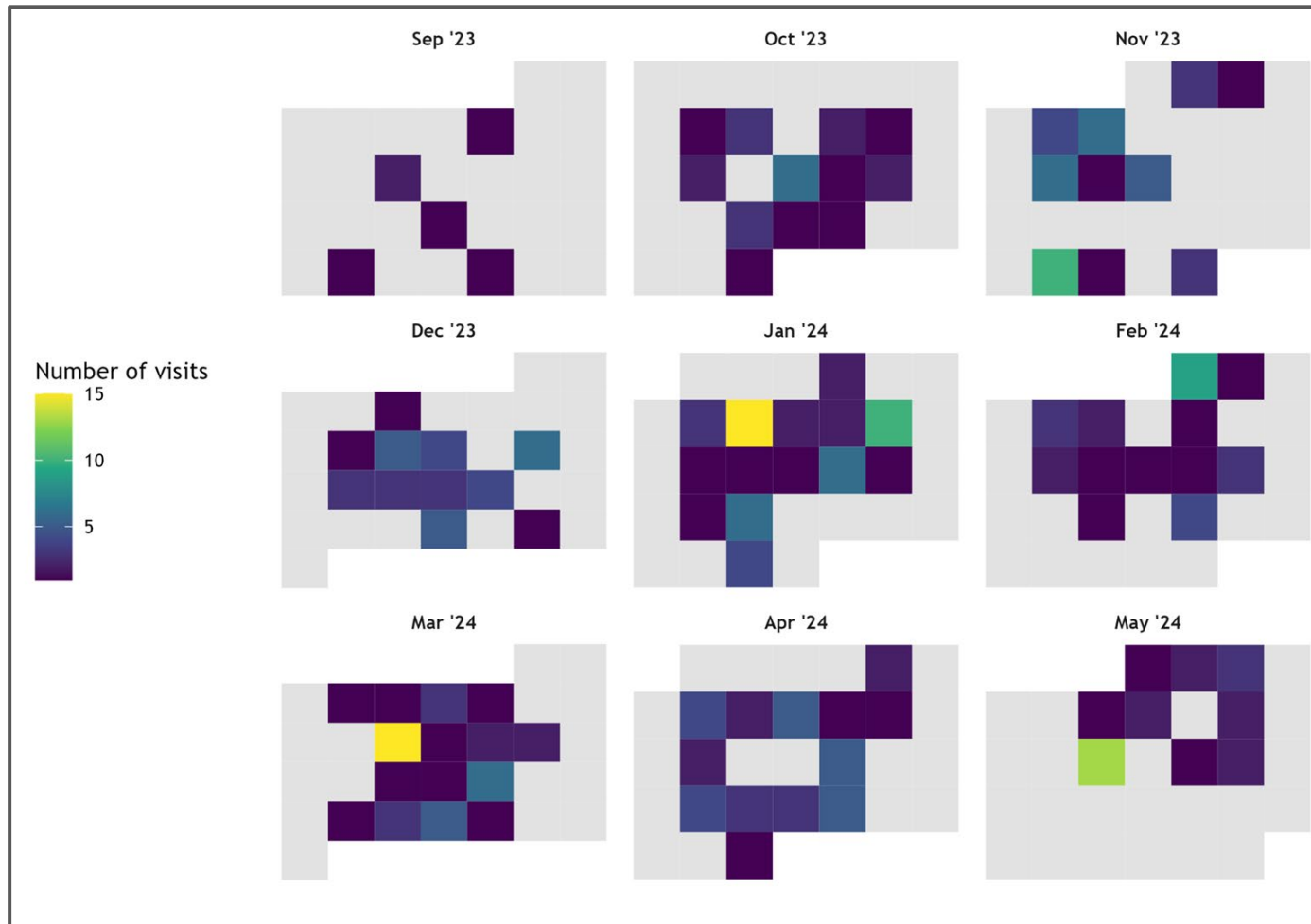
# Public Health Detailing data tracking

- A Public Health Detailing data tracking spreadsheet was created to document the details about each PH Detailing visit.
- The data from the provider level dashboard is documented at each visit along with notes and follow up information about the visit.
- The data tracking spreadsheet is then used to further evaluate program effectiveness.



# Number of visits - high level summary visualization

- To date, **153** clinics participated and received at least an initial visit
- Karen, Deb, and Savannah completed **299** total visits between September 7, 2023 and May 17, 2024



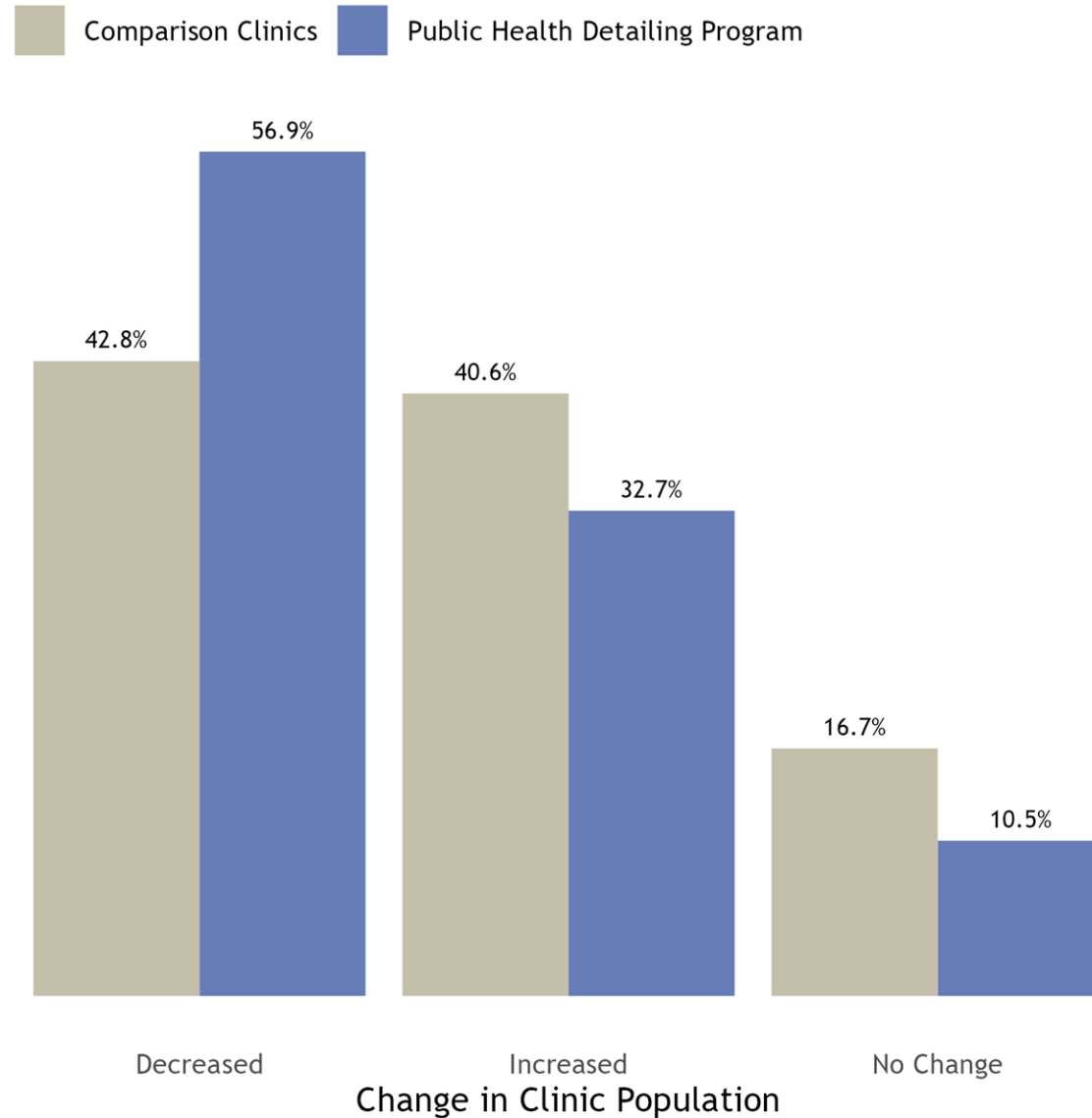
# Change in k-aged clinic populations

- **30,697** kindergarten-aged children belonged to the 153 clinics as of the baseline date.
- 29,454 kindergarten-aged children were assigned to the 153 clinics as of the most recent visit they received.
- **87** clinic populations decreased during the program, indicating that providers made efforts to clean up their active population. More accurate clinic populations in CIIS can help us estimate more accurate vaccination coverage rates using CIIS data.



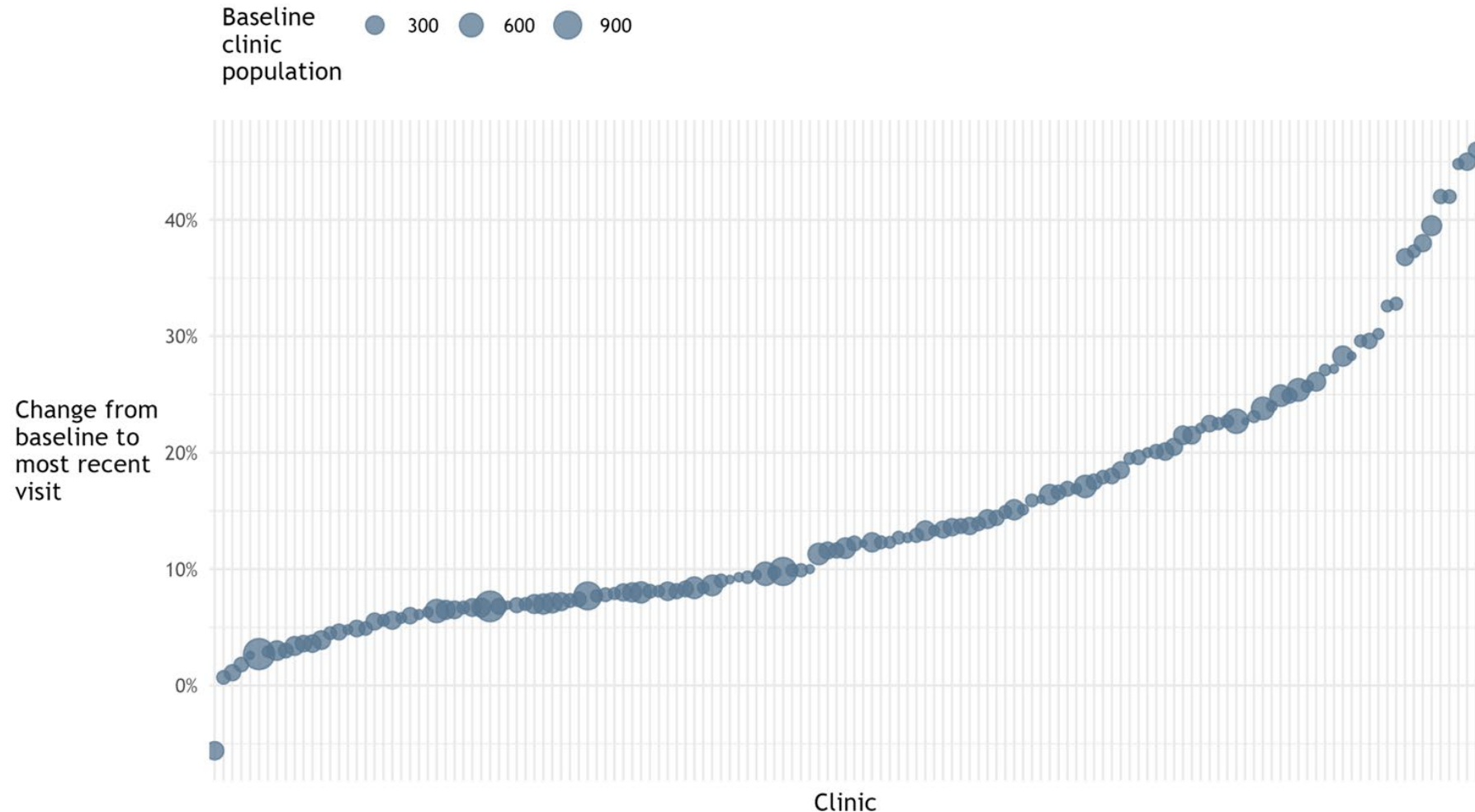


# Change in clinic population



Compared to clinics who did not participate in the public health detailing program who had at least 25 Kindergarten-aged children at baseline, a higher proportion of participating clinics experienced a decrease in their population in 2023-24.

# MMR rate change from baseline to most recent visit



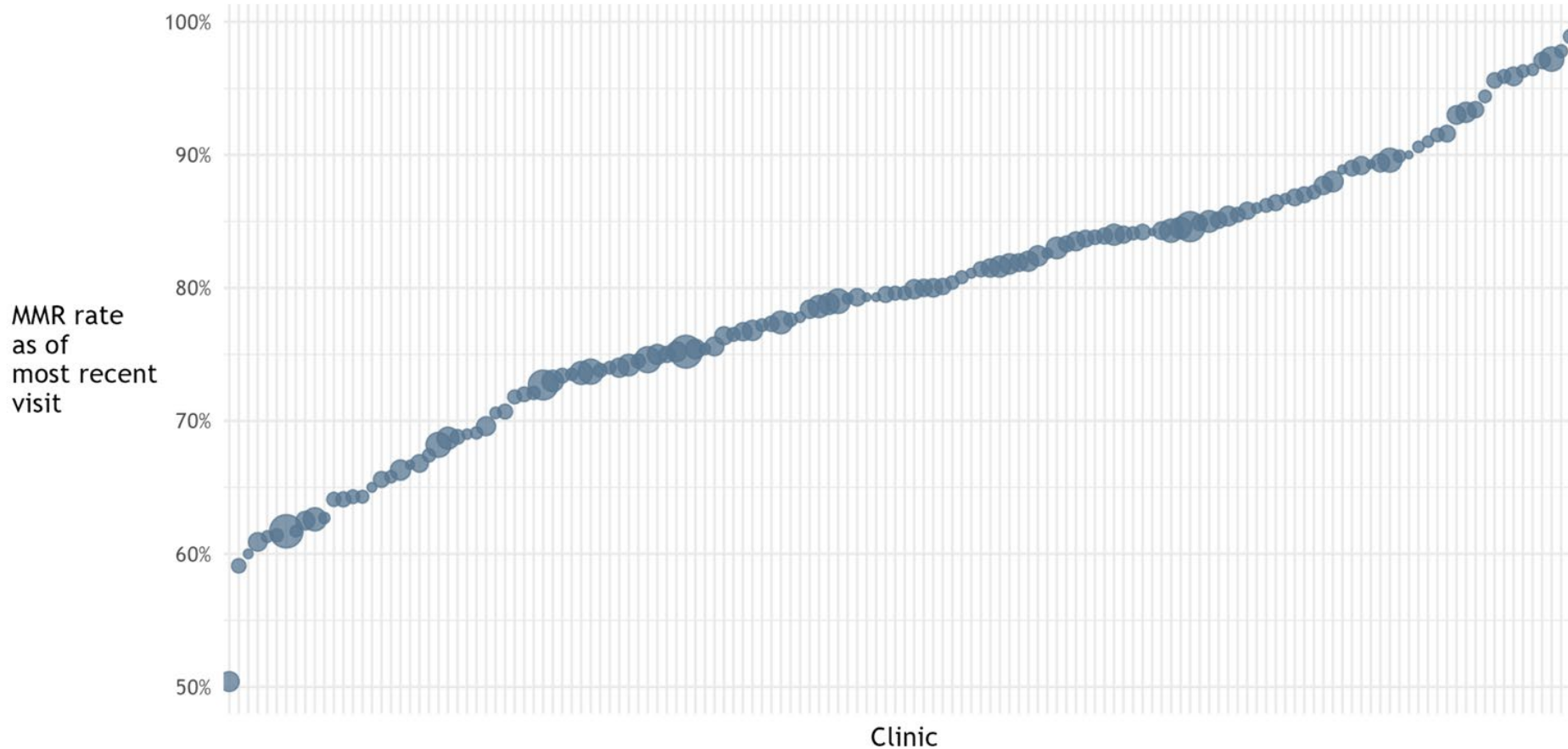
Among clinic participants with at least 25 Kindergarten-aged children at baseline, all but one clinic's MMR rates increased from baseline to the most recent visit. Rates increased by at least 1% and by at most 46%. One clinic's rates decreased by 6%.



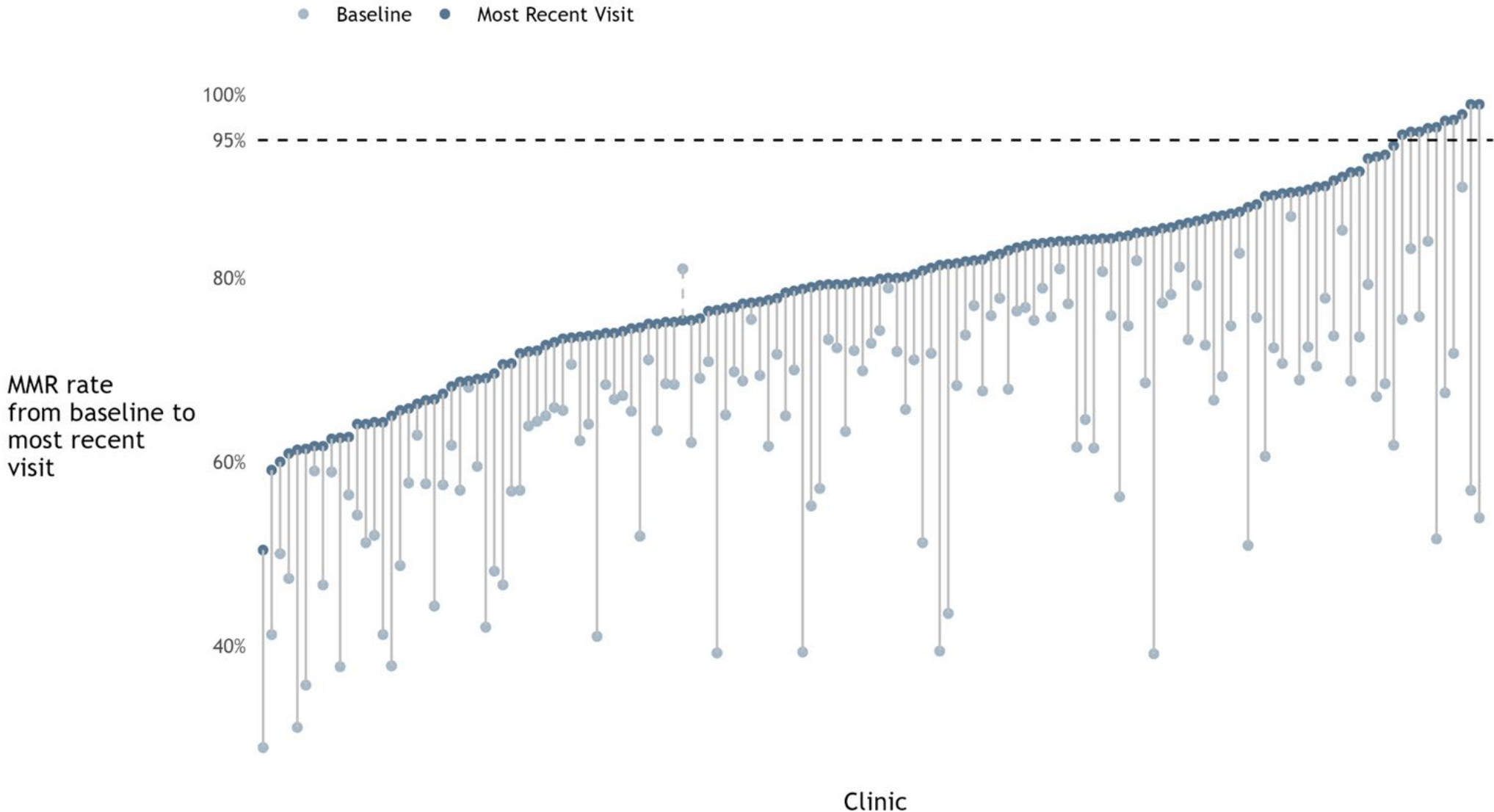
# MMR rate as of the most recent PH Detailing visit

10 clinics exceeded MMR rates of 95% as of their most recent visit. Rates ranged from 50% to 99%.

Baseline clinic population  
● 300 ● 600 ● 900

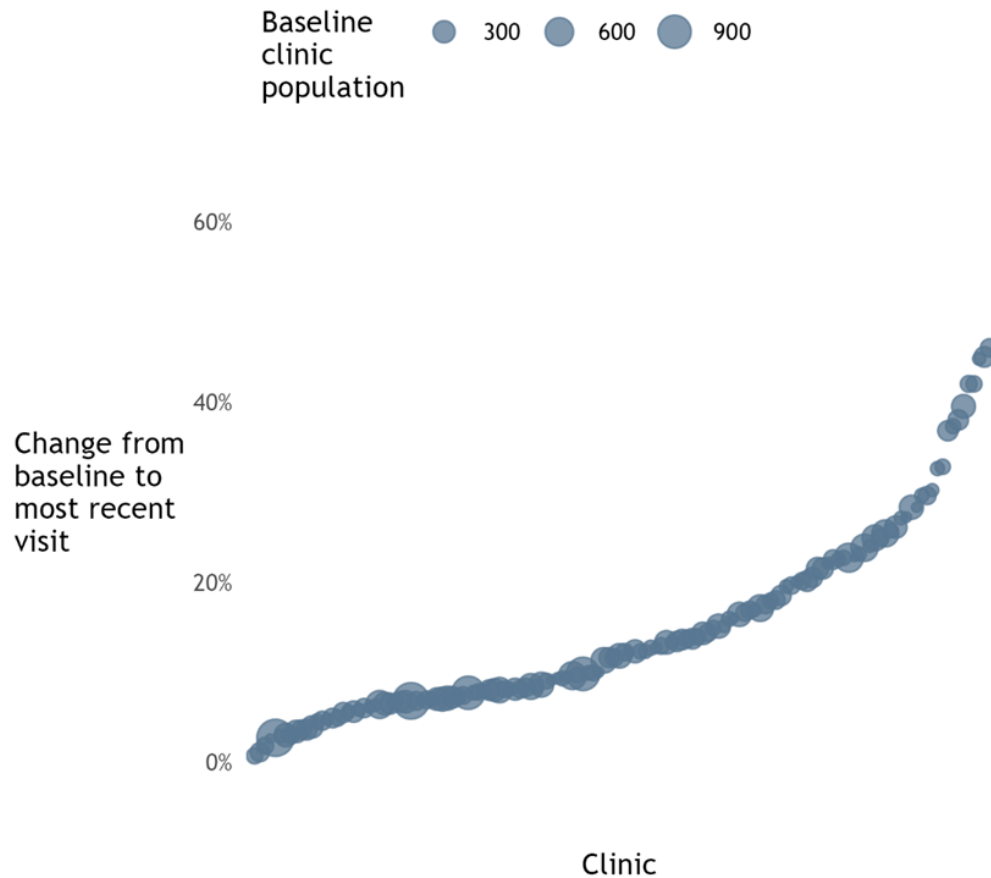


# MMR rate baseline to most recent visit

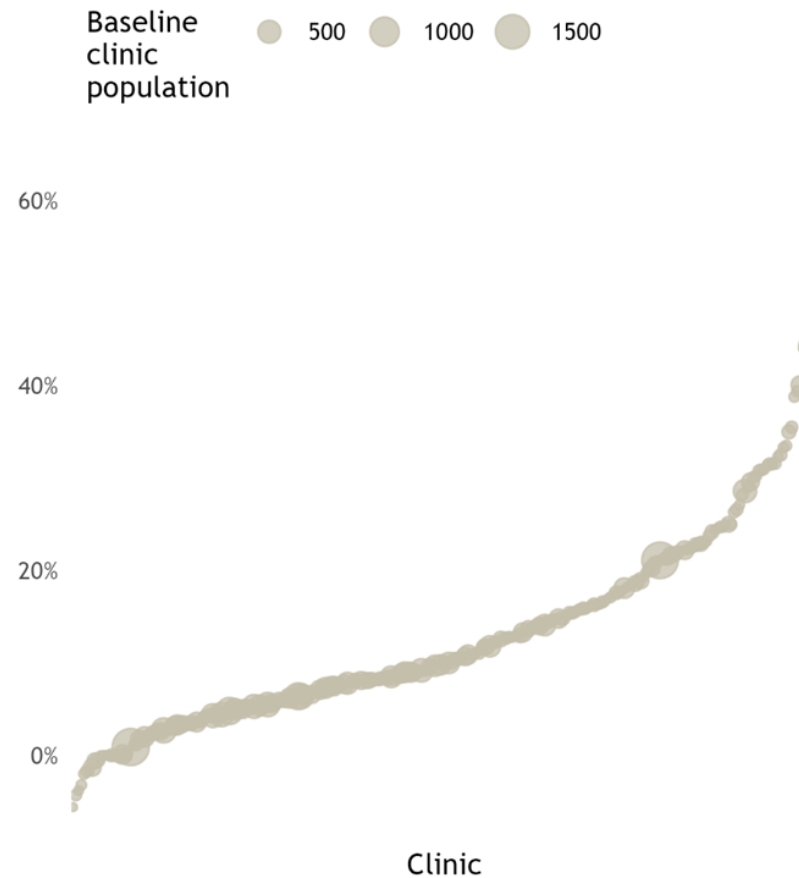


# Changes in MMR rates

## PHD participating clinics



## Comparison clinics



Changes in MMR rates didn't differ significantly among public health detailing project-participating clinics compared to clinics who did not participate during the same time period.

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# Demonstration of an abbreviated PH Detailing visit

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# Initial provider communication

**Metadata**

Current cohort inclusion, MMR status, and DTaP status were evaluated on \*\*\*.

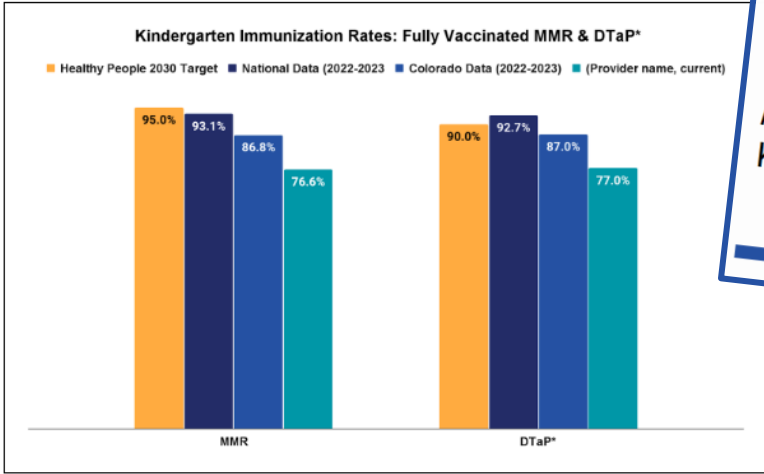
Because the current cohort is based on an updated evaluation of active patients in CIIS, the total number of Kindergarten-aged patients included in the current cohort may differ from the total number included in the baseline cohort.

The accuracy of MMR and DTaP rate estimates is dependent on the completeness and accuracy of the data in CIIS. Missing vaccinations in CIIS will impact the resulting rate estimates. Also, due to out of date clinic statuses in CIIS, the number of active patients assigned to a clinic in CIIS may not accurately represent the true clinic patient population.

**Current Clinic-Level Data**

(Provider Name)			
Data current as of <b>May 22, 2024</b>			
Total kindergarten-aged patients associated with clinic in CIIS: <b>244</b>			
MMR		DTaP*	
Up to Date	187	Up to Date	188
Not Up to Date	57	Not Up to Date	56
Percent Up to Date	76.6%	Percent Up to Date	77%

\*Fully vaccinated = 5 valid doses of DTaP OR 4 valid doses of DTaP if dose 4 was administered at age 4 years or older. (State of Colorado 2023)



\*Fully vaccinated = 5 valid doses of DTaP OR 4 valid doses of DTaP if dose 4 was administered at age 4 years or older. (State of Colorado 2023)



## PUBLIC HEALTH DETAILING 2023-2024

Educational outreach for immunizing providers to help support practice and encourage immunization best practices

The focus of this program is to increase MMR & DTaP rates in Colorado's Kindergarten-aged children

**AT-A-GLANCE FOR CLINICIANS:**  
Public Health Detailing project, a custom strategy to increase MMR and DTaP for Colorado's kindergarten-aged children

**VISITS ARE:**

- >> Virtual
- >> Set for 15 minutes
- >> Offered at convenient times
- >> One-on-one; providers receive information customized for their clinic

**VISITS COVER:**

- >> Review declining MMR and DTaP rates in Colorado's kindergarten-aged children
- >> Clinic/provider-level data
- >> Kindergarten readiness and best practices
- >> Customized information and resources



# Colorado's Public Health Detailing Program

## Improving Colorado's Childhood MMR and DTaP Immunization Rates

Savannah Destefano, BSN, RN  
Registered Nurse/Public Health Detailer  
Division of Disease Control and Public Health Response

05.22.2024



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# Welcome and introductions

Please introduce yourself: *Name, title, and clinic role*



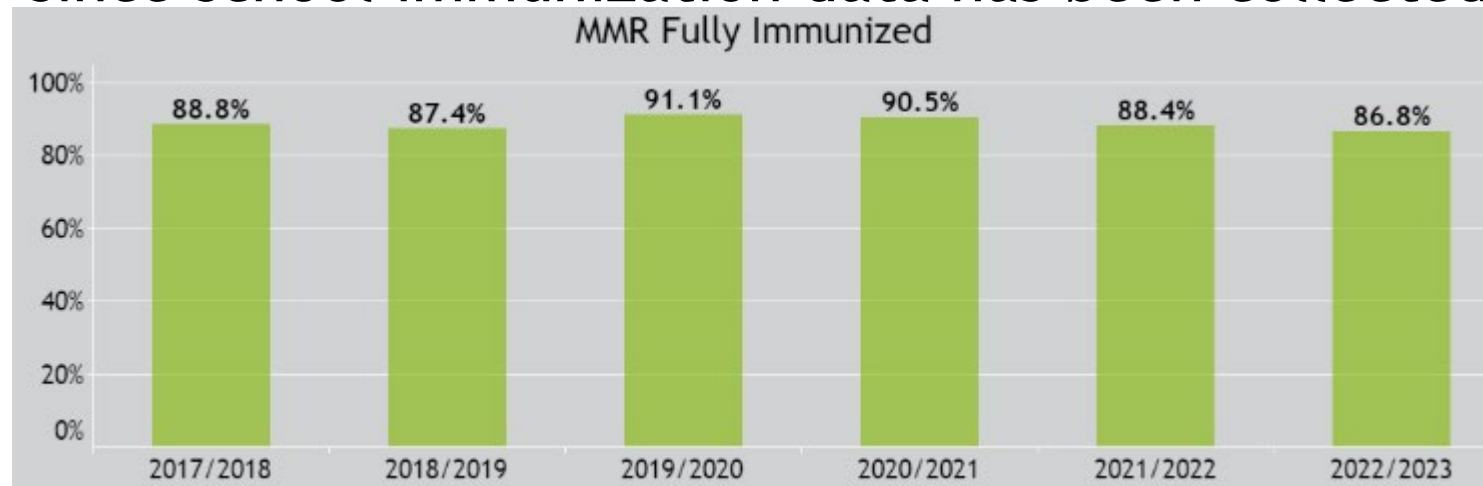
# Meeting objectives:

1. Provide background information on Colorado's kindergarten immunization rates
2. Define public health detailing and goals of the program
3. Share provider-level kindergarten MMR immunization rates
4. Share resources
5. Schedule follow-up meetings



# Background - Colorado kindergarten vaccination rates

- Colorado Board of Health rule requires schools and childcares to report immunization and exemption data to CDPHE annually.
- School reported data show kindergarten vaccination rates in Colorado consistently below national averages.
- 2022-2023 school year saw the lowest kindergarten immunization rates since school immunization data has been collected in this format.



# Colorado's Public Health Detailing Program

Increase the percentage of Colorado kindergarten students protected against measles, mumps, and rubella (MMR) to 95%.

- Launched as one of many initiatives in response to declining kindergarten immunization rates in Colorado
- Evidence-based strategy that works directly with clinicians by conducting a series of brief visits to provide data, resources, build relationships, and enhance clinical practice

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Public Health Detailing is not:

- ✗ An audit or survey
- ✗ Intended to create more work for the clinician



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# Public Health Detailing program overview

## 12 month program cycle

### Visit 1

- General overview of program
- Review key issues
- Review CIIS patient association and inactivation
- Discuss provider-level data and provide relevant reports

### Visit 2

- Review current provider-level data
- Review clinic progress
- Discuss kindergarten readiness and best practices
- Review school immunization law and exemptions

### Visit 3

- Review current provider-level data
- Review clinic progress
- Discuss CIIS best practices
- Discuss strategies to optimize CIIS functionality

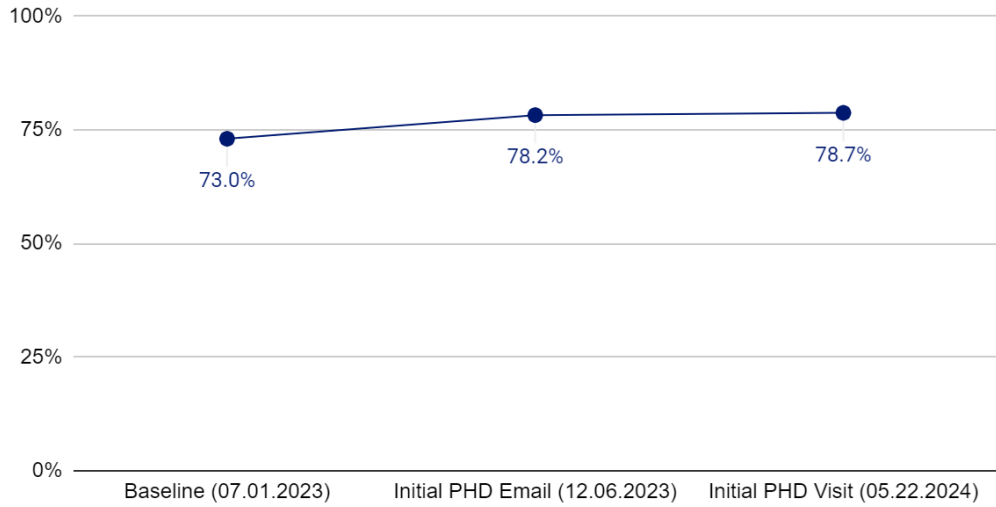
### Visit 4

- Share final provider-level data
- Share school-reported data, including provider's local county and school district data
- Provide additional resources

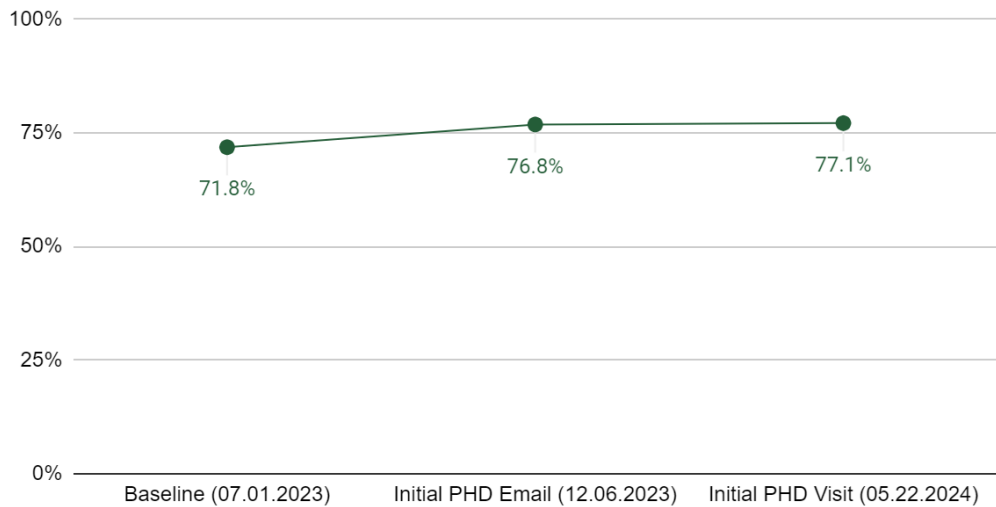


# Current provider-level CIIS Data

## Provider-level CIIS data: Up to Date MMR



## Provider-level CIIS data: Up to Date DTaP



### Colorado Provider

Data current as of May 22, 2024

Total kindergarten-aged patients associated to clinic in CIIS: **506**

	MMR	DTaP*	
Up to Date	398	Up to Date	390
Not Up to Date	108	Not Up to Date	116
Percent Up to Date	<b>78.7%</b>	Percent Up to Date	<b>77.1%</b>

\*Fully vaccinated = 5 valid doses of DTaP OR 4 valid doses of DTaP if dose 4 was administered at age 4 years or older. (State of Colorado 2024)





# Partnered Reminder/Recall

CDPHE offers partnered reminder/recall to select clinics participating in Public Health Detailing

## Questionnaire for Clinic

### Message type (okay to select all three):

- Text (Teletask - text messages will come from 45778)
- Email (emails will come from cdphe.vaccine.registry@state.co.us)
- Phone (call will come from 303-692-2728)

### Message language (select all that apply):

- English
- Spanish
- Other (will require additional time for translation of scripts)

### Date and time for recall to occur:

Date of recall: \_\_\_\_\_

Time of recall: \_\_\_\_\_

### Note:

- Messages can be sent any time between 8a-7p, Monday-Saturday
- Message scripts approved by the provider/medical director must be received by CDPHE at least 3 business days prior to the clinic's designated message date and time





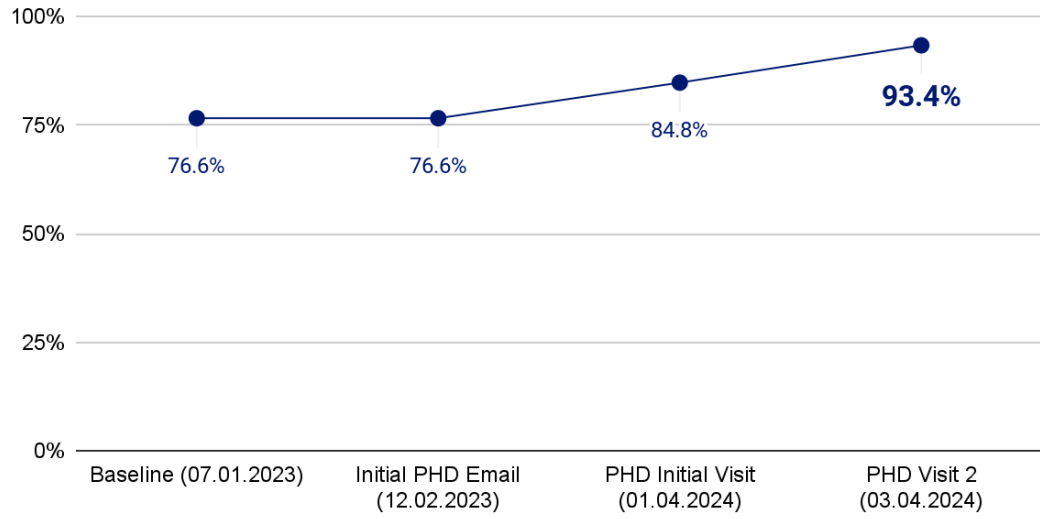
Savannah Destefano, BSN, RN, CWS  
CDPHE Contract Nurse/Detailer  
[savannah.destefano@state.co.us](mailto:savannah.destefano@state.co.us)



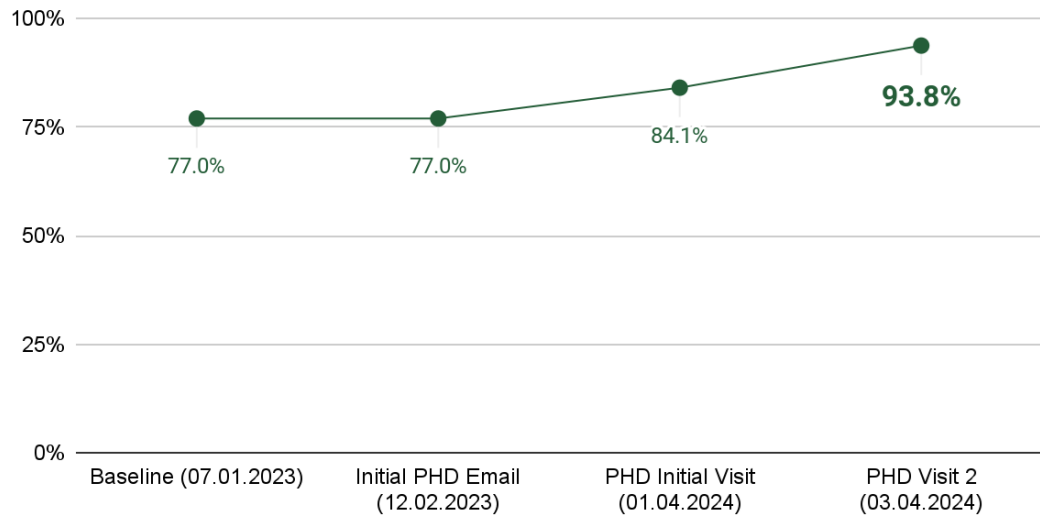
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# Current provider-level CIIS Data

## Provider-level CIIS data: Up to Date MMR



## Provider-level CIIS data: Up to Date DTaP



### Colorado Provider

Data current as of May 22, 2024

Total kindergarten-aged patients associated to clinic in CIIS: **242**

	MMR	DTaP*	
Up to Date	226	Up to Date	227
Not Up to Date	16	Not Up to Date	15
Percent Up to Date	<b>93.4%</b>	Percent Up to Date	<b>93.8%</b>

\*Fully vaccinated = 5 valid doses of DTaP OR 4 valid doses of DTaP if dose 4 was administered at age 4 years or older. (State of Colorado 2024)



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# Partnered reminder/recall

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# Partnered Reminder/Recall

Partnered Reminder/Recall	
Participating clinics	13
Patients contacted	342
Language translations	3



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# Lessons learned and next steps

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# PH Detailing as a IQIP customized strategy

- Pros
  - Ability to reach more providers with at least an initial visit.
- Cons
  - Difficult to maintain a quarterly visit approach since IQIP visits are initiated throughout the year.
  - Some providers will not complete all four PH Detailing visits by the end of the 2023-24 project year.
  - Less K-aged focused since IQIP visits focus on other strategies as well.

Moving forward we will implement a structured quarterly visit approach with a set number of providers. If there is overlap with IQIP providers, we will collaborate and IQIP consultants to ensure IQIP and PH Detailing are on the same cycle.

# Vaccine hesitancy

- Seemed to be the primary focus on the earlier PH detailing project documents.
- From conducting provider visits, we have learned that responding to vaccine hesitancy is just one of many provider needs and fits nicely into education on “kindergarten readiness and best practices”.
- More and more clinics are not accepting patients who choose to not vaccinate.



# Provider list and PH Detailing dashboard

- When additional providers were added to the PH Detailing dashboard, the baseline date was “reset” on the dashboard (displayed data from January/March 2024 instead of July 1, 2023). This likely happened twice throughout this initial project year (once in January and again in March).
- We used initial visit data from a tracking spreadsheet to soften this data discrepancy.
- For the 2024-25 program data, the baseline will run on July 1, 2024 and will include all clinics in CIIS to avoid the list ‘resetting’ during the project year.
- The 2024-25 PHD program will focus on MMR only.



# Other lessons learned

- Initial visits were a bit delayed while program materials were being developed and Public Health Detailer position was posted/hired/trained.
- Level of provider engagement varies significantly and staff turnover is an issue.
- Clinics lack baseline knowledge of using CIIS data and CIIS reports, requiring a lot of focus in this one area.
- Clinics have expressed interest in better understanding school immunization law and required data reporting, this content was added to the PH Detailing program.



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# Shout outs!

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# Shout outs!

- A special thank you to the following people who have made this program possible:
  - Heather, Robin, Jennifer
  - Sara
  - Rachel
  - Sandra
  - Karen D. and CIIS team
  - Deb



# Thank you!



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