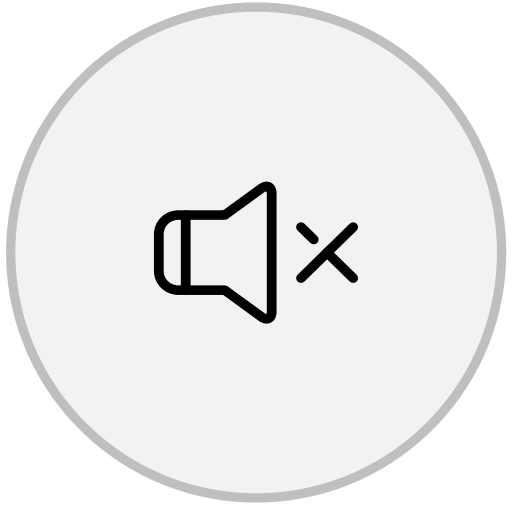
AIRA
AMERICAN IMMUNIZATION REGISTRY ASSOCIATION

Immunization in the Time of COVID

AIRA-AIM Joint Education Steering Committee Webinar
July 13, 2020

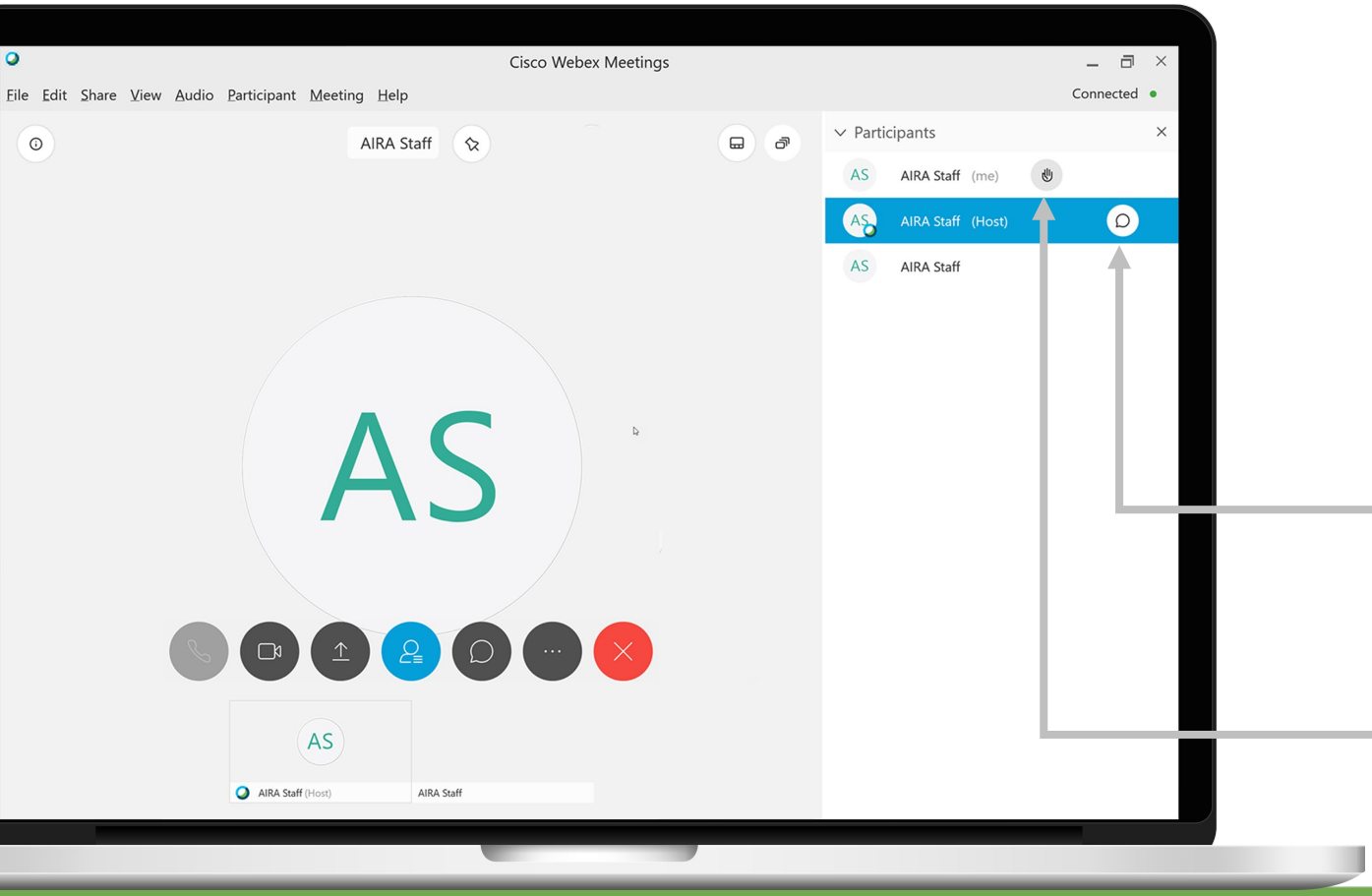
Before We Get Started



All phone lines
are muted

This meeting is being recorded
and will be posted on the
AIRA repository

Question & Answer



How do I ask a question?

- There will be time allotted for Q&A following the presentation, to unmute your line press *6
- Via WebEx:

Select the chat icon next to the host and type question into the chat box.

Select the hand icon next to your name and you will be called on.

Today’s Speakers

- Cristi Bramer, Michigan
- Jane Zucker, New York City
- Christy Gray, Virginia
- Eric Larson, AIRA
- Katelyn Wells, AIM

Cristi Bramer

Michigan

Using Michigan's IIS to Monitor the Impact of the COVID-19 Pandemic

CRISTI BRAMER, MPH

EPIDEMIOLOGIST, DIVISION OF IMMUNIZATION, MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES

AIRA EDUCATION WEBINAR, JULY 13, 2020

Outline

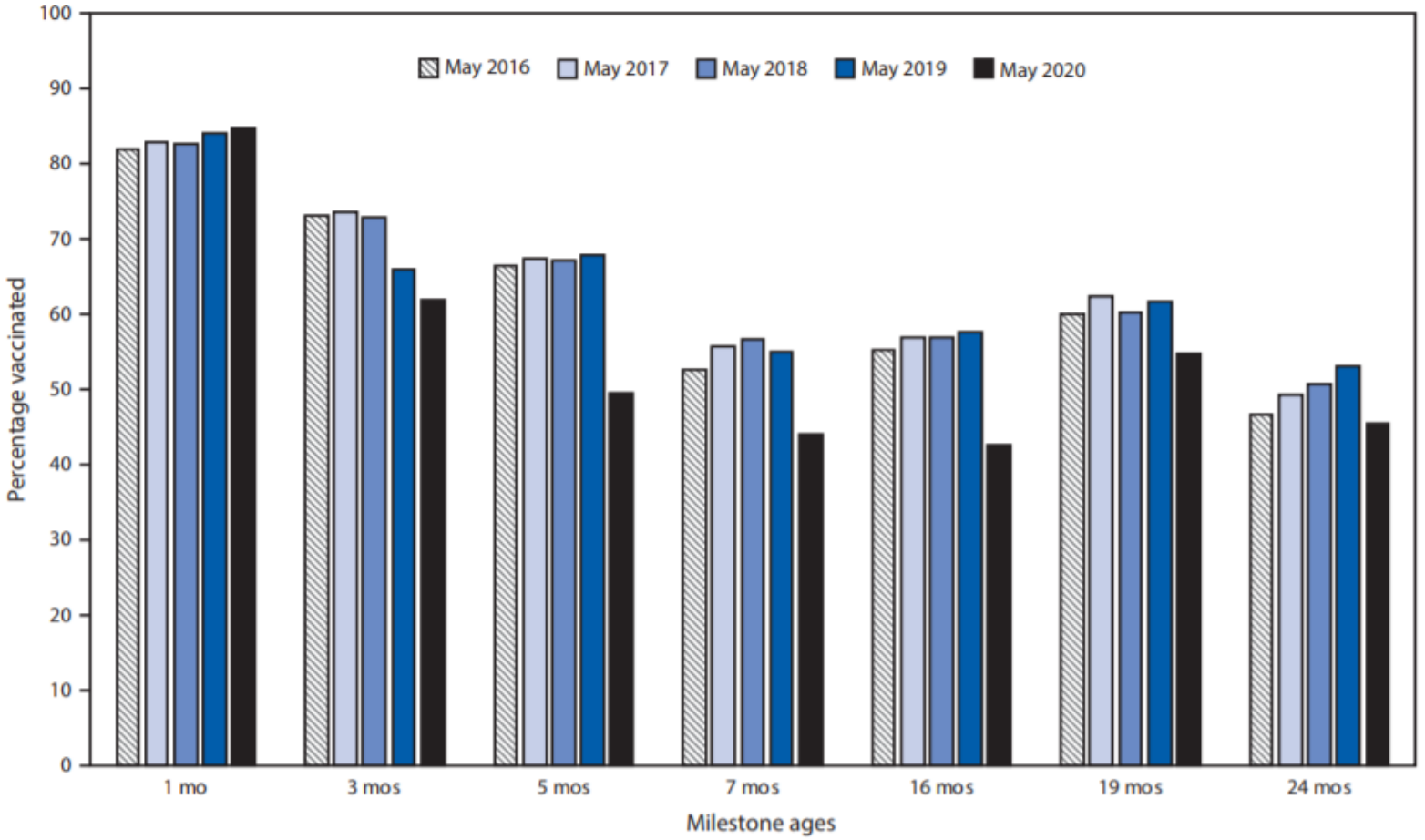
- Decline in vaccination coverage in Michigan children
- Michigan's monthly COVID impact report on immunizations across the lifespan
- Communication and collaboration with providers

Impact of COVID-19 on child vaccination coverage

- Children < 2 years of age assessed for ACIP recommended vaccines at milestone ages since 2015
  - Michigan Care Improvement Registry (MCIR) data
  - Epidemiologist generated report distributed to local health departments
- Adapted report to monitor the impact of COVID-19 on vaccination coverage
- "Decline in Child Vaccination Coverage During the COVID-19 Pandemic — Michigan Care Improvement Registry, May 2016–May 2020" published in CDC's Morbidity and Mortality Weekly Report on May 18, 2020

Bramer CA, Kimmins LM, Swanson R, et al. Decline in Child Vaccination Coverage During the COVID-19 Pandemic — Michigan Care Improvement Registry, May 2016–May 2020. MMWR Morb Mortal Wkly Rep 2020;69:630–631.
DOI: http://dx.doi.org/10.15585/mmwr.mm6920e1external icon

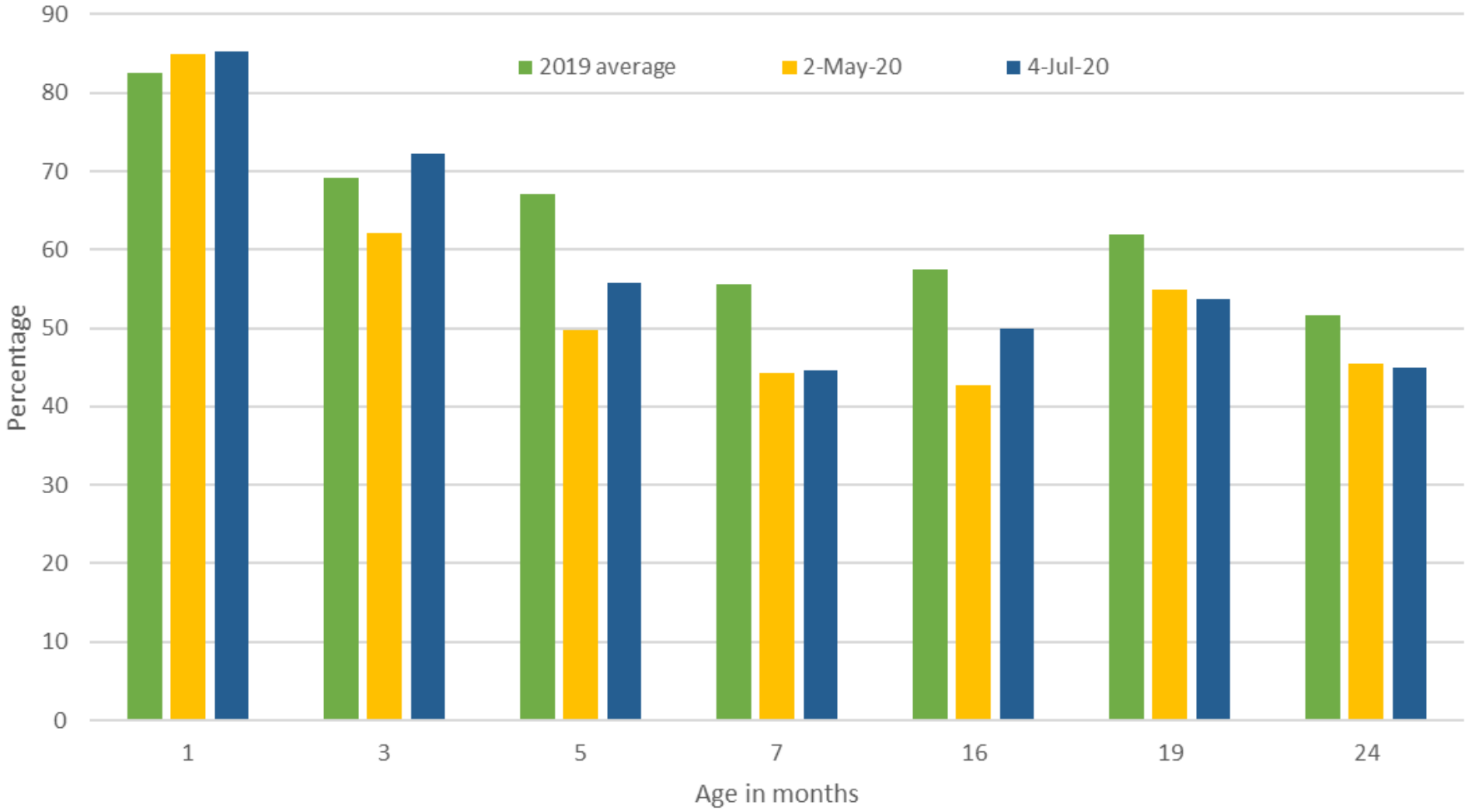
FIGURE. Percentage of Michigan infants and children vaccinated at milestone ages* — Michigan Care Improvement Registry, May 2016, 2017, 2018, 2019, and 2020



* Milestone age cohorts (average sample size: 9,269 for 2016–2019, and 9,539 for 2020) were assessed at a point in time in May of each year. Milestone age-based cohort assessments of recommended vaccine doses received were as follows: 1 month — 1st dose hepatitis B (HepB) within 3 days of life; 3 months — 2nd dose HepB, 1 rotavirus (Rota), 1 diphtheria, tetanus, and acellular pertussis (DTaP), 1 *Haemophilus influenzae* type b (Hib), 1 pneumococcal conjugate (PCV), 1 inactivated poliovirus (IPV); 5 months — 2 HepB, 2 Rota, 2 DTaP, 2 Hib, 2 PCV, 2 IPV; 7 months — 2 HepB, up-to-date (UTD) Rota, 3 DTaP, UTD Hib, 3 PCV, 2 IPV; 16 months — 2 HepB, 3 DTaP, UTD Hib, 4 PCV, 2 IPV, 1 measles, mumps, rubella (MMR), 1 varicella (Var); 19 months — 3 HepB, 4 DTaP, UTD Hib, 4 PCV, 3 IPV, 1 MMR, 1 Var; 24 months — 3 HepB, 4 DTaP, UTD Hib, 4 PCV, 3 IPV, 1 MMR, 1 Var, 2 hepatitis A.

Bramer CA, Kimmins LM, Swanson R, et al. Decline in Child Vaccination Coverage During the COVID-19 Pandemic — Michigan Care Improvement Registry, May 2016–May 2020. MMWR Morb Mortal Wkly Rep 2020;69:630–631. DOI: http://dx.doi.org/10.15585/mmwr.mm6920e1external icon

Percentage of Michigan children vaccinated at milestone ages for the ACIP recommended vaccines*, MCIR,
2019 average compared to May and July 2020 point estimates



**Age based cohort assessments: 1 month - 1 hepatitis B (HepB); 3 months - 2 HepB, 1 rotavirus (Rota), 1 diphtheria, tetanus, and acellular pertussis (DTaP), 1 *haemophilus influenzae* type b (Hib), 1 pneumococcal conjugate (PCV), 1 inactivated poliovirus (IPV); 5 months - 2 HepB, 2 Rota, 2 DTaP, 2 Hib, 2 PCV, 2 IPV; 7 months - 2 HepB, up-to-date (UTD) Rota, 3 DTaP, UTD Hib, 3 PCV, 2 IPV; 16 months - 2 HepB, 3 DTaP, UTD Hib, 4 PCV, 2 IPV, 1 measles, mumps, rubella (MMR), 1 varicella (Var); 19 months - 3 HepB, 4 DTaP, UTD Hib, 4 PCV, 3 IPV, 1 MMR, 1 Var; 24 months - 3 HepB, 4 DTaP, UTD Hib, 4 PCV, 3 IPV, 1 MMR, 1 Var, 2 hepatitis A.

Concerning Disparities

- 7 months cohort assessed in May: 34.6% of Medicaid-enrolled children were up-to-date for their recommended series, compared with 55.0% of children not enrolled in Medicaid

Percentage of Michigan children vaccinated for the ACIP recommended vaccines at milestone ages by Medicaid status, MCIR, July 4, 2020

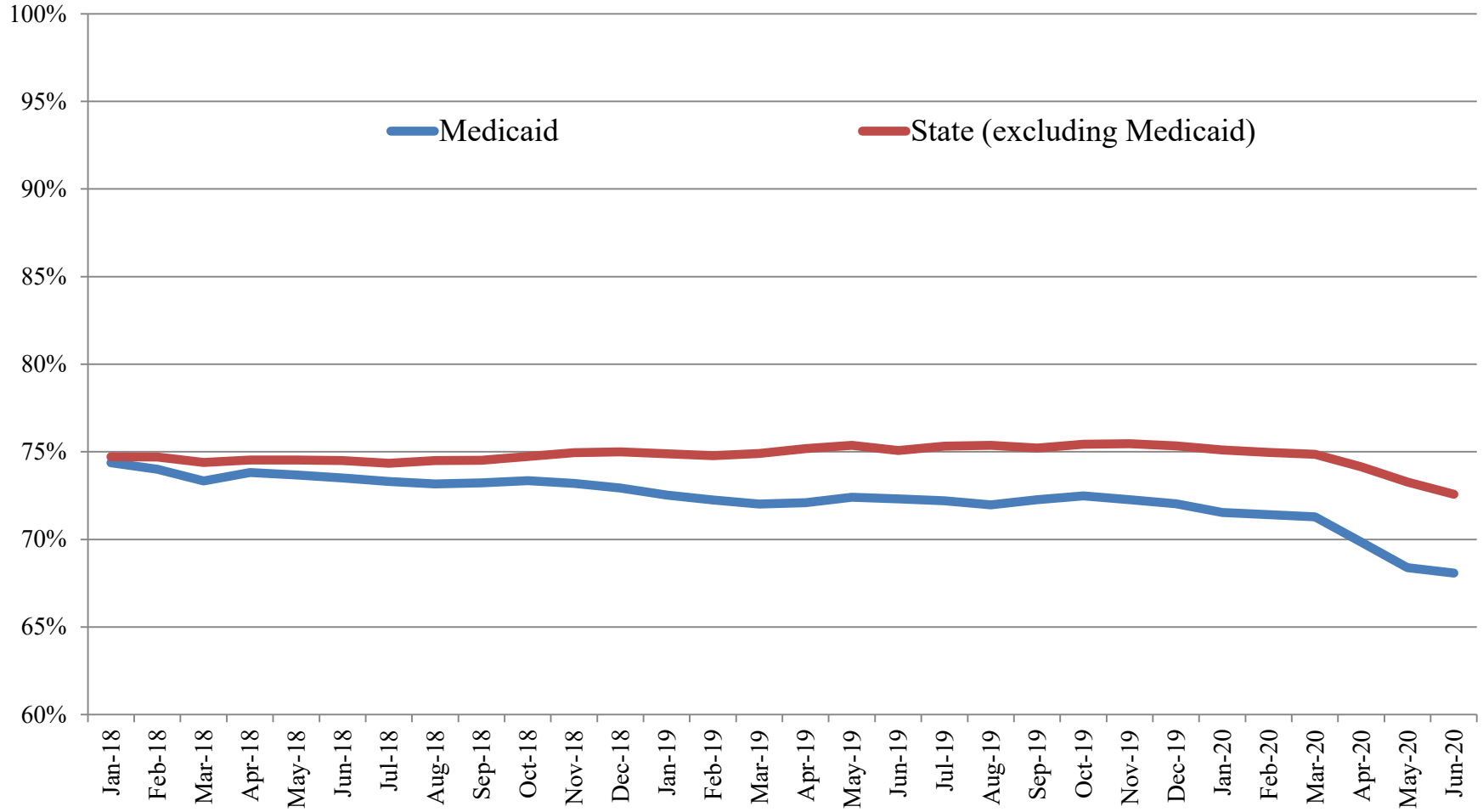
	1mo	3mo	5mo	7mo	16mo	19mo	24mo
Medicaid	88	67.3	45.6	33.6	44.4	46	38.5
Non-Medicaid	84.5	77.3	68.1	57.6	54.5	60.2	50
Difference	-3.5	10	22.5	24	10.1	14.2	11.5

Monthly COVID impact report

Developed to monitor the impact of COVID-19 on immunization administration and reporting patterns

- Vaccination coverage
  - Children < 2 at milestone ages
  - Child series coverage, 19 through 35 months of age
  - Adolescent series coverage, 13 through 17 years of age
- Doses administered across the lifespan
- Public dose orders
- Vaccine funding eligibility (Private, VFC, Medicaid)
- Doses by vaccine type by age group
- Doses by MCIR facility type by age group

Estimated 4313314* Vaccination Coverage, Children 19 through 35 months, Michigan Care Improvement Registry, January 2018 - June 2020

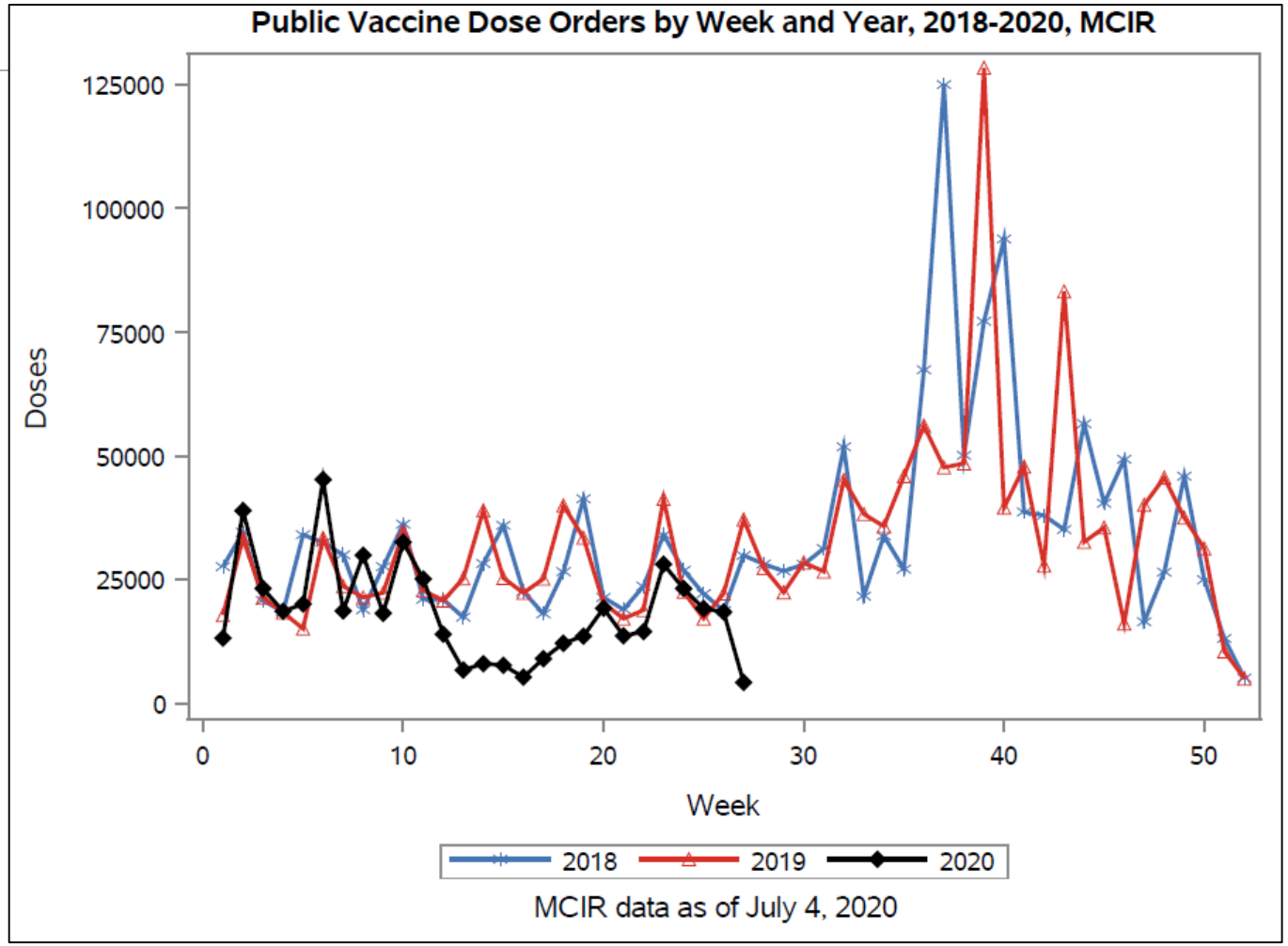


*4313314 series: 4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 HepB, 1 Varicella, 4 PCV

Prepared by the Michigan Department of Health and Human Services, Division of Immunization using data reported to the Michigan Care Improvement Registry (MCIR).

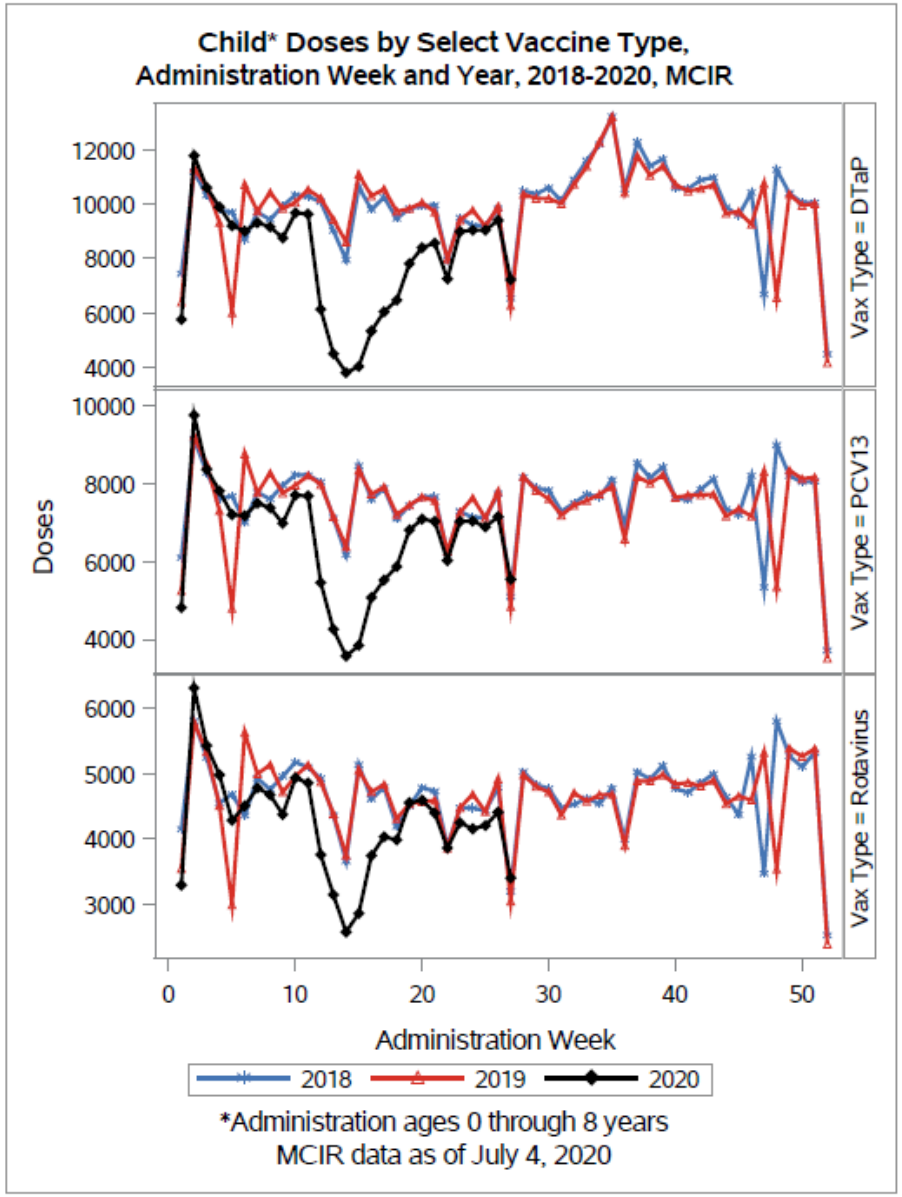
Monitoring Dose Orders

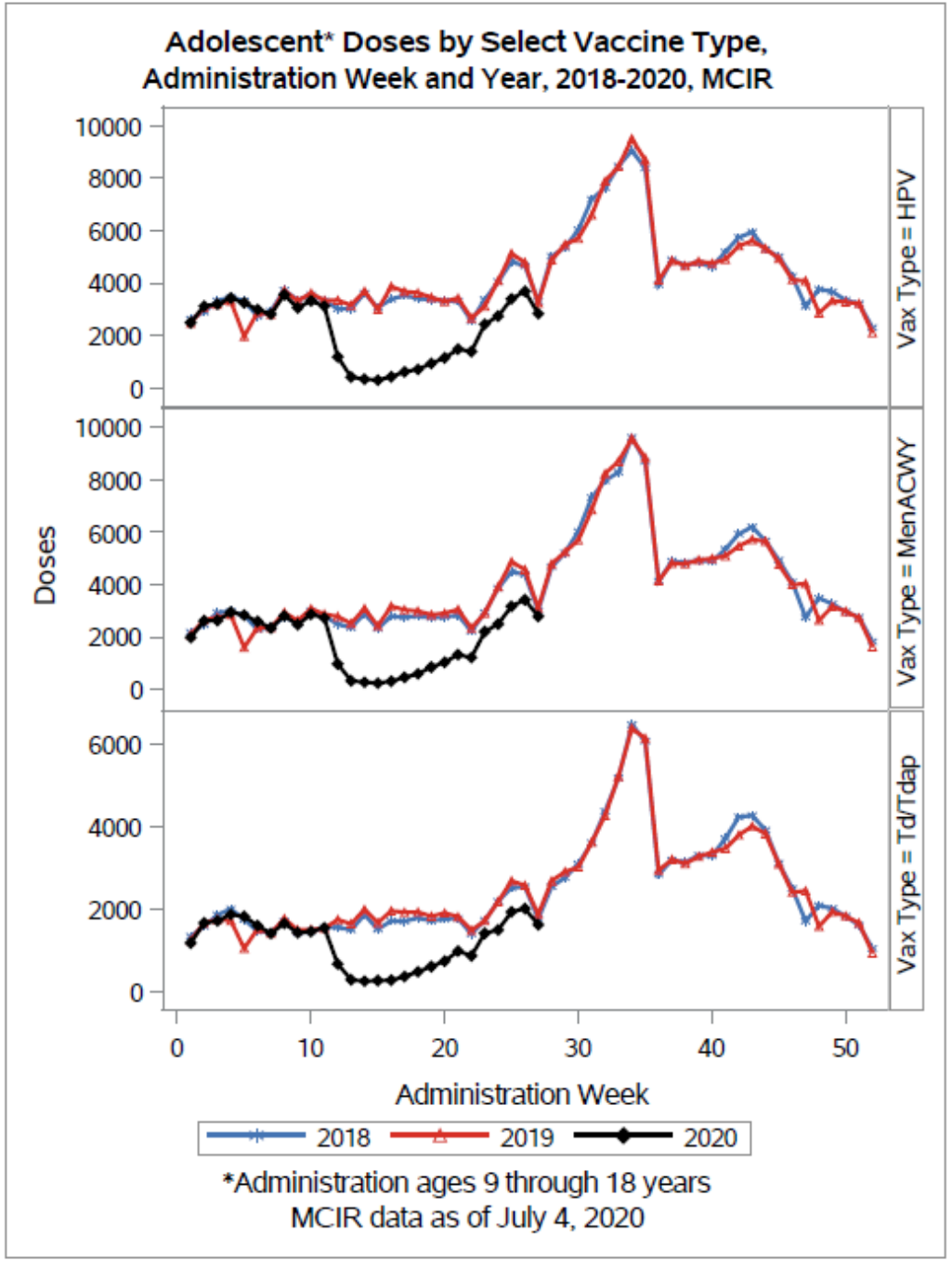
- 2020 public doses were lowest during MMWR week 16 (week ending April 16, 2020)
  - 76.5% decrease compared to the average of the same weeks in 2018 and 2019
- June 2020 public dose orders were only 9.8% below the average of the public dose orders

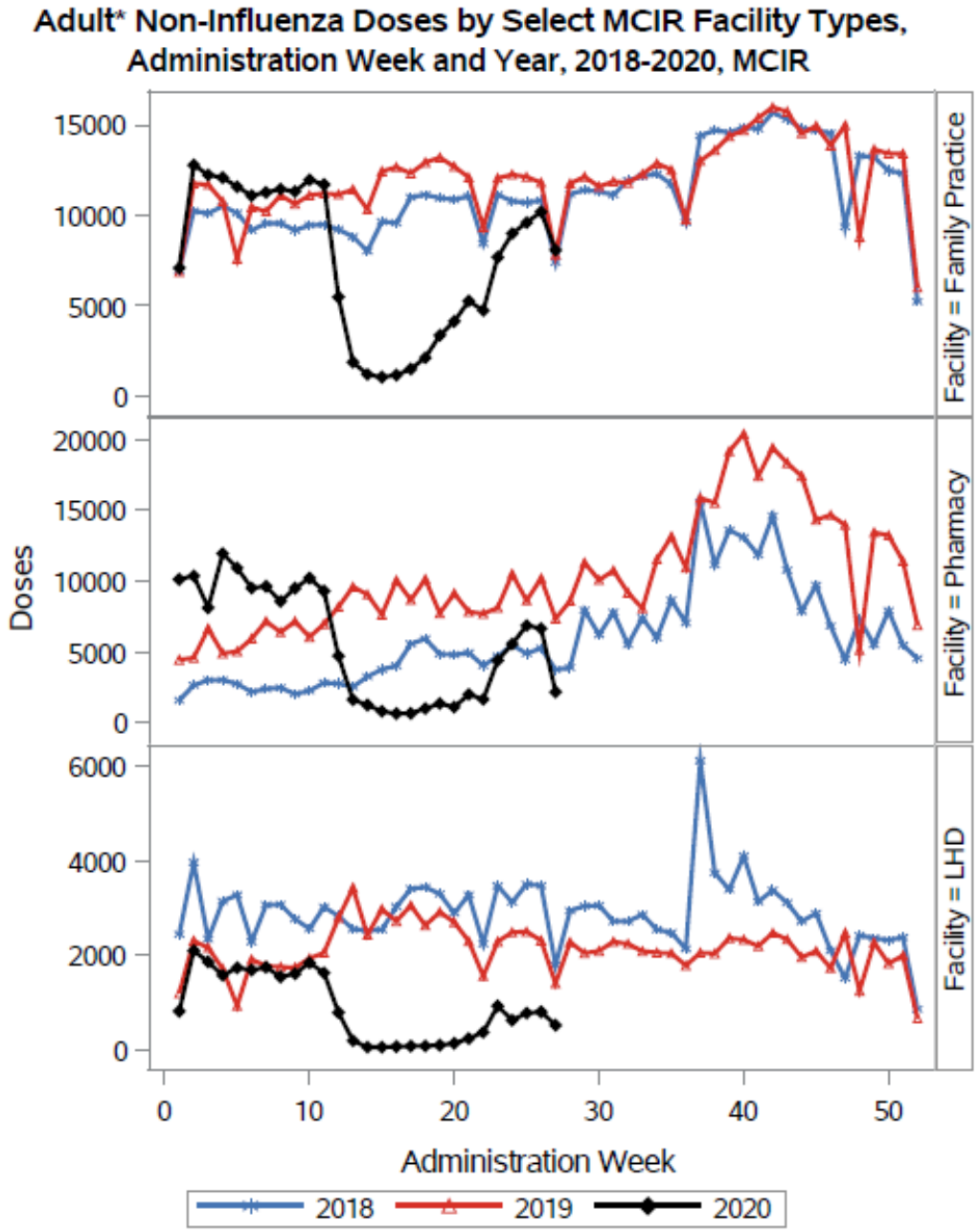


5. Doses by Vaccine Type and Age Group

Please note that the vertical scales are adjusted for each vaccine type and age group. Vaccine types are ordered by decreasing frequency of doses reported.

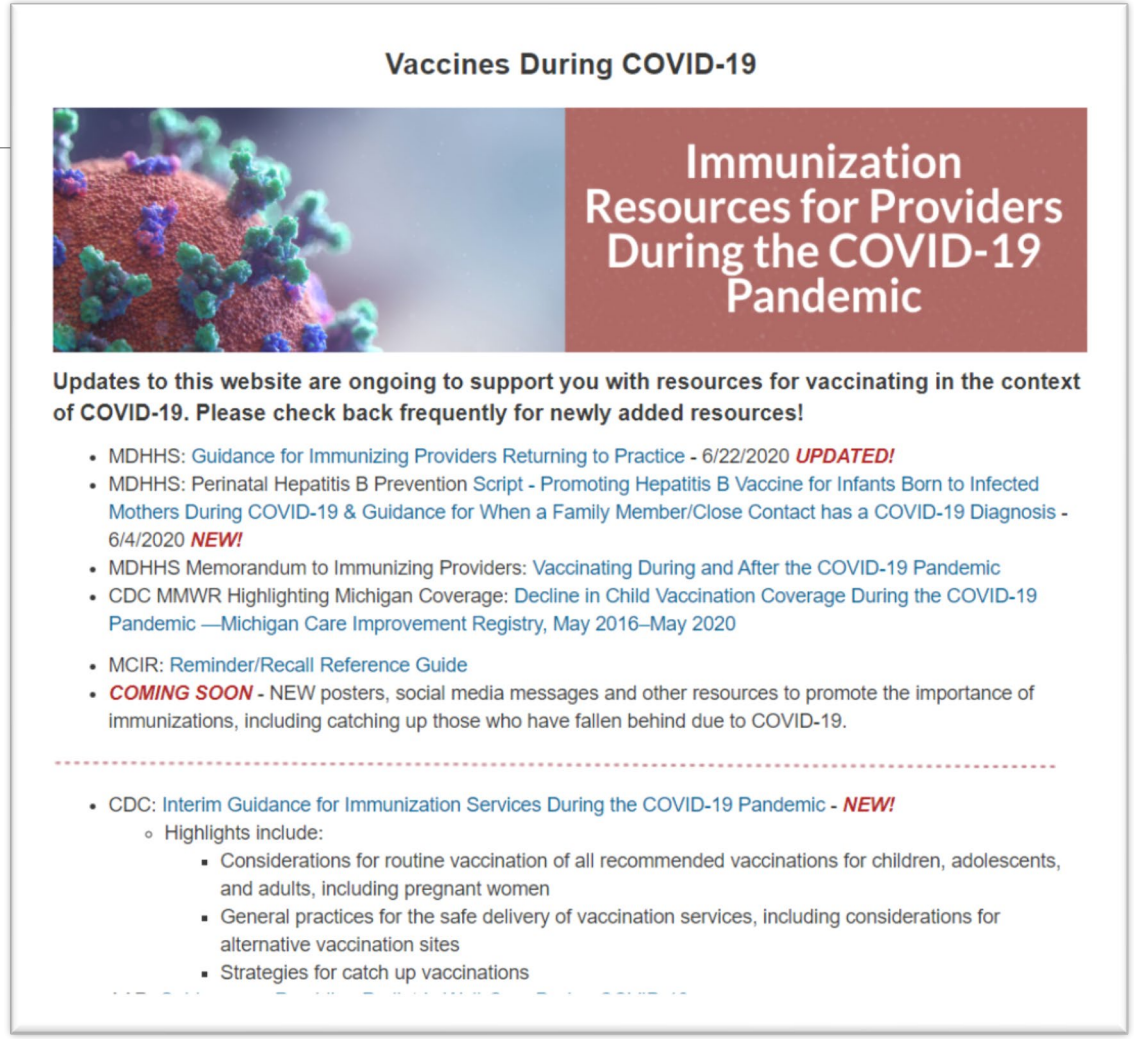



Adolescent* Doses by Select Vaccine Type,
Administration Week and Year, 2018-2020, MCIR
Doses
Vax Type = HPV
Vax Type = MenACWY
Vax Type = Td/Tdap
0
2000
4000
6000
8000
10000
0
10
20
30
40
50
Administration Week
2018
2019
2020
*Administration ages 9 through 18 years
MCIR data as of July 4, 2020


Adult* Non-Influenza Doses by Select MCIR Facility Types, Administration Week and Year, 2018-2020, MCIR
Doses
15000
10000
5000
0
20000
15000
10000
5000
0
6000
4000
2000
0
Facility = Family Practice
Facility = Pharmacy
Facility = LHD
0
10
20
30
40
50
Administration Week
2018
2019
2020
*Administration ages 19 through 105 years
MCIR data as of July 4, 2020

Information Distribution to Immunization Providers

- Frequent emails to immunization stakeholders
  - Key points from the COVID impact report
  - Resources for support
    - MCIR tools (reminder/recalls, Immunization Quality Improvement Reports at the practice/clinic level, VFC program)
- New website: www.Michigan.gov/VaccinesDuringCOVID
- MDHHS Memorandums shared 3/23/2020 and 3/30/20: "Vaccinating during the COVID-19 Pandemic"
- Michigan Medical State Society (MSMS) e-blasts
  - Declining rates and communication strategies
  - Emphasizing catching up on vaccines
- Article developed for MSMS Newsletter, July publication
  - Back-to-school, catchup, and information on the VFC program



Communication and Collaboration with Partners

- Monthly calls with Local Health Departments
- MDHHS workgroup focused on strategies for vaccinating during COVID-19 and beyond
  - Messages and guidance materials for providers and the public
    - Launching a communication campaign with the hashtag #MIHeroForHealth
      - Emphasizes that vaccination allows us to be a hero not only for our health but for the health of our Michigan communities
- May 13: Michigan Advisory Committee on Immunization virtual meeting
  - Includes members from Michigan Chapter of the American Academy of Pediatrics, Michigan Academy of Family Practice, Michigan Health and Hospital Association, Michigan Pharmacy Association, Michigan Chapter of the American College of Physicians, and more
- Meetings with partners (impact of COVID and planning for the influenza season)
  - BCBS of Michigan, Michigan Pharmacy Association, Michigan Medicaid

Questions

Cristi Bramer: BramerC@Michigan.gov

Jane Zucker

New York City

Immunization in the Time of COVID, New York City

AIRA Webinar

Jane R. Zucker, MD, MSc
Assistant Commissioner, Bureau of Immunization
New York City Department of Health and Mental Hygiene

July 13, 2020

Objectives

- To track the impact of the COVID-19 pandemic on vaccine administration and VFC vaccine orders in New York City

Background

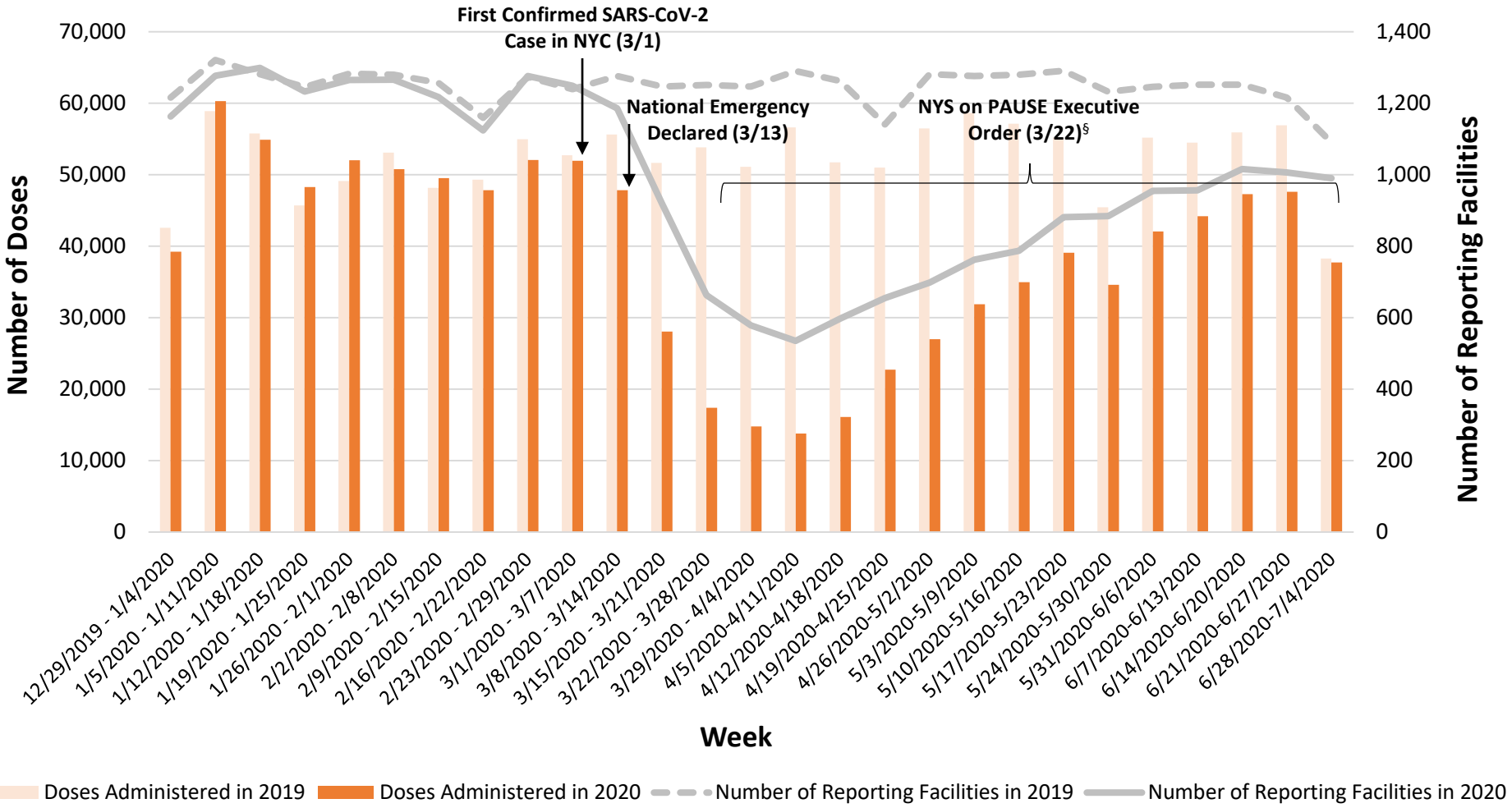
- Citywide Immunization Registry (CIR)
- Population-based
- 2.7M children <19 years
- Required reporting of childhood immunization
- Adult reporting requires consent
- Integrated CIR and Vaccines for Children (VFC) databases in 2006
- High data quality and provider participation

Methods

- Tracked weekly vaccine administration compared to same period last year based on vaccine doses reported to the Citywide Immunization Registry (CIR)
  - Number of vaccines administered to children ages 0-18 years and adults ages ≥19 years compared to same week last year
  - Number of facilities reporting immunizations to the CIR compared to same week last year
- Tracked weekly VFC vaccine orders compared to the same period last year

Results

Routine Pediatric Vaccines Administered to Children Ages ≤ 18 Years in New York City, by Week, 2019-2020*†



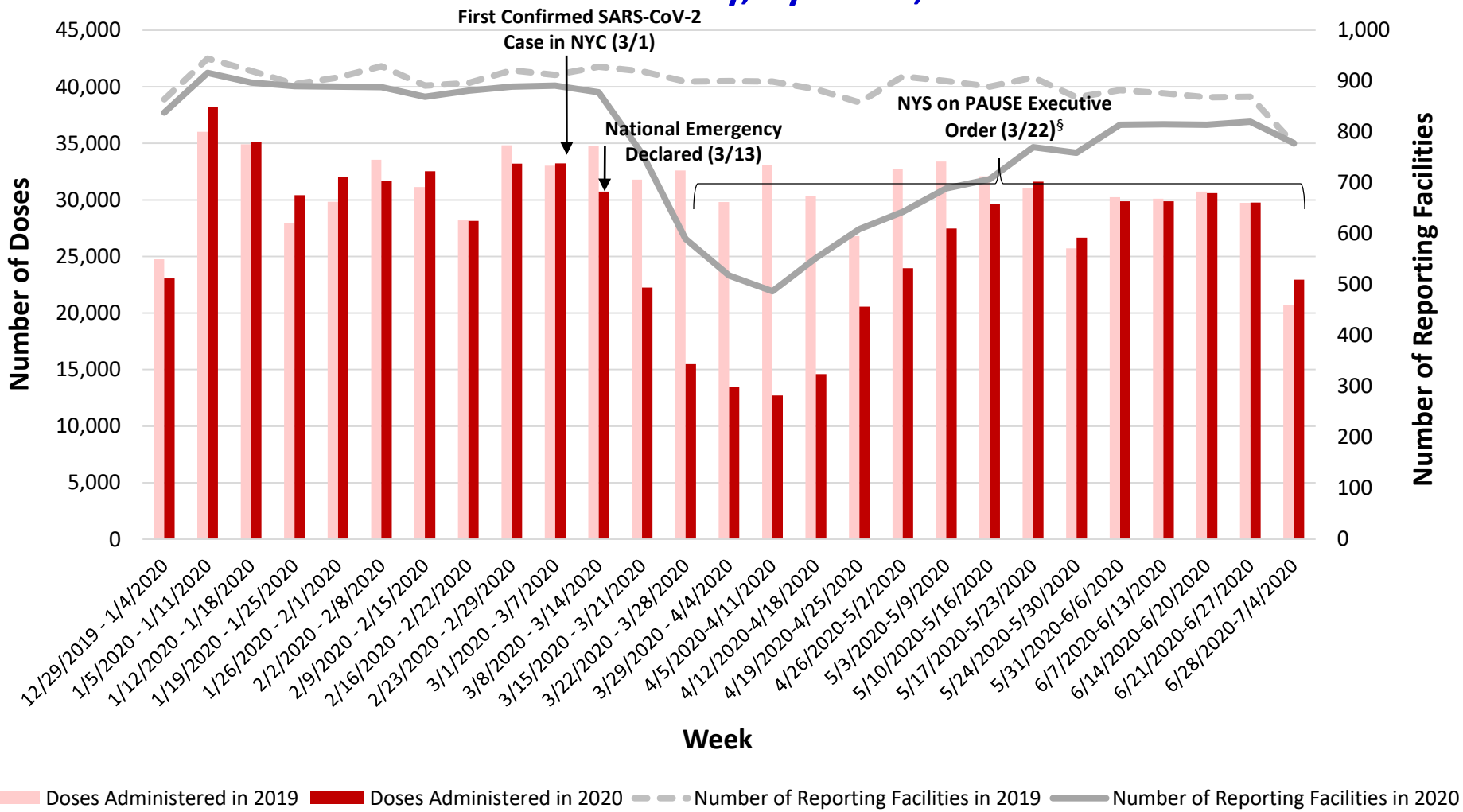
Source: Citywide Immunization Registry; data run on 7/7/2020

*Doses administered between 12/29/2019 and 7/4/2020 and entered into the CIR by 7/5/2020 compared to doses administered between 12/30/2018 and 7/6/2019 and entered by 7/7/2019. Week format is Sunday-Saturday.

†Excludes influenza vaccine and immunizations administered in pharmacies and nurseries

§The New York State on Pause Executive Order went into effect at 8pm on Sunday, March 22, 2020 requiring New Yorkers to stay at home to reduce the spread of SARS-CoV-2

Routine Pediatric Vaccines Administered to Children Ages <24 Months in New York City, by Week, 2019-2020*†



Source: Citywide Immunization Registry; data run on 7/7/2020

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†Excludes influenza vaccine and immunizations administered in pharmacies and nurseries

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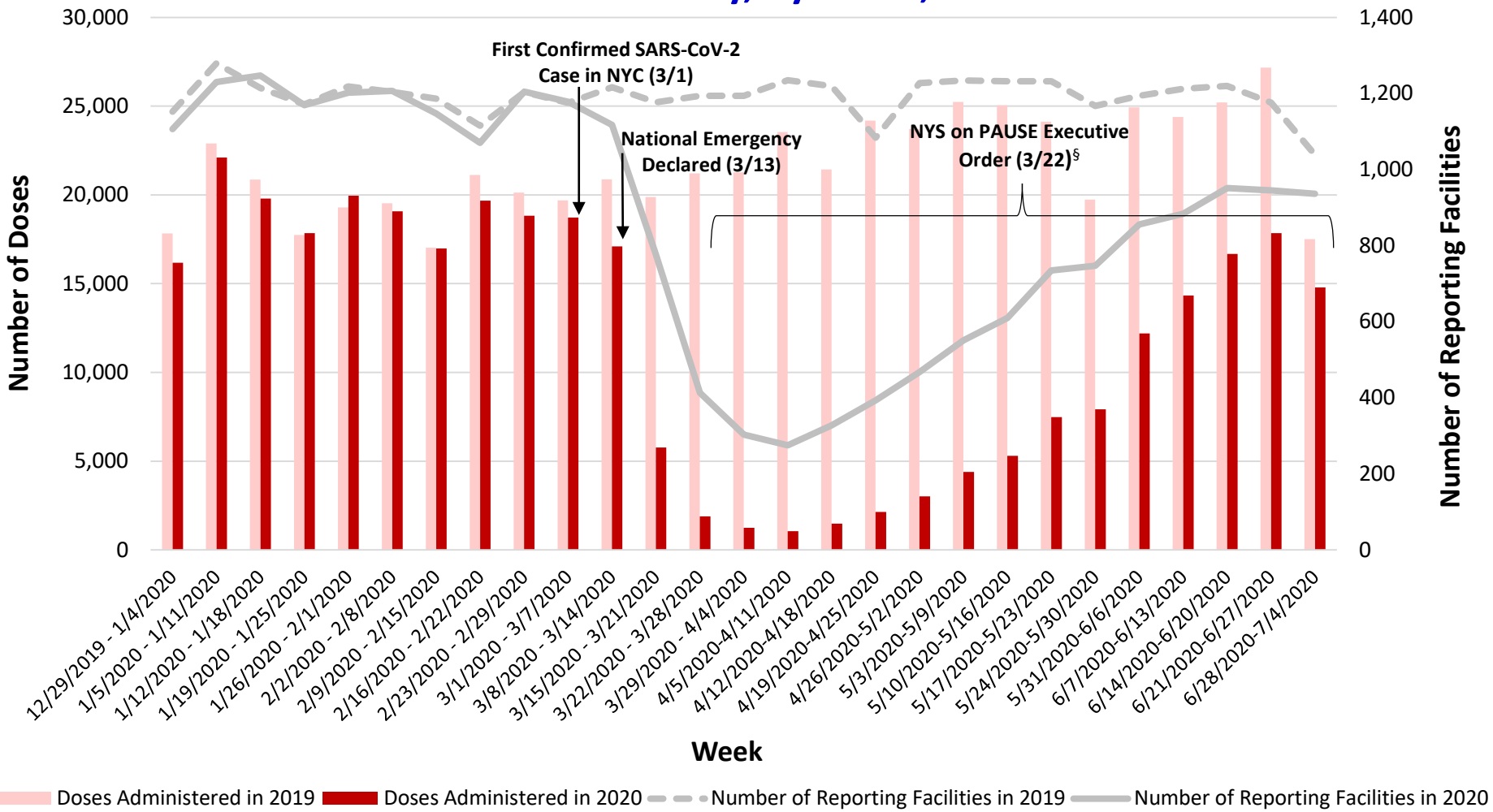
Routine Pediatric Vaccines Administered to Children Ages 2 to 18 Years in New York City, by Week, 2019-2020*†



Source: Citywide Immunization Registry; data run on 7/7/2020

*Doses administered between 12/29/2019 and 7/4/2020 and entered into the CIR by 7/5/2020 compared to doses administered between 12/30/2018 and 7/6/2019 and entered by 7/7/2019. Week format is Sunday-Saturday.

†Excludes influenza vaccine and immunizations administered in pharmacies and nurseries

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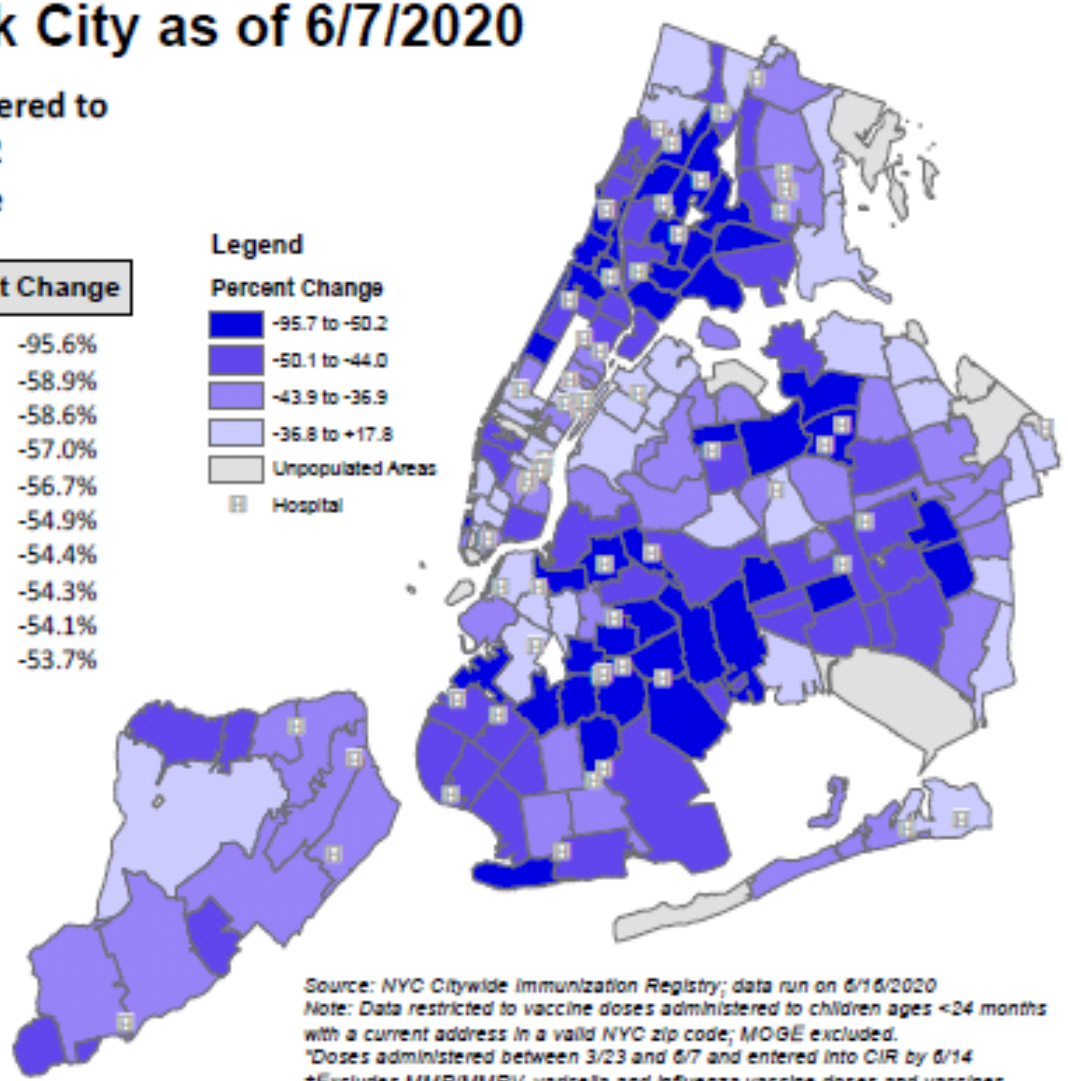
Change in Pediatric Vaccination During COVID-19 Pandemic in New York City as of 6/7/2020

Percent Change in Vaccines Administered to Children Ages <24 Months since 3/22 NYS on Pause Order, by NYC Zip Code

10 Most Affected Zip Codes	Percent Change
1. Central Harlem - Morningside Heights (10037)	-95.6%
2. Central Harlem - Morningside Heights (10027)	-58.9%
3. Central Harlem - Morningside Heights (10039)	-58.6%
4. Coney Island - Sheepshead Bay (11224)	-57.0%
5. Upper West Side (10024)	-56.7%
6. Bedford Stuyvesant - Crown Heights (11212)	-54.9%
7 High Bridge - Morrisania (10456)	-54.4%
8. Hunts Point - Mott Haven (10454)	-54.3%
9. Hunts Point - Mott Haven (10459)	-54.1%
10. Sunset Park (11232)	-53.7%

Borough	Percent Change
Bronx	-47.0%
Brooklyn	-46.3%
Manhattan	-48.6%
Queens	-38.8%
Staten Island	-38.7%

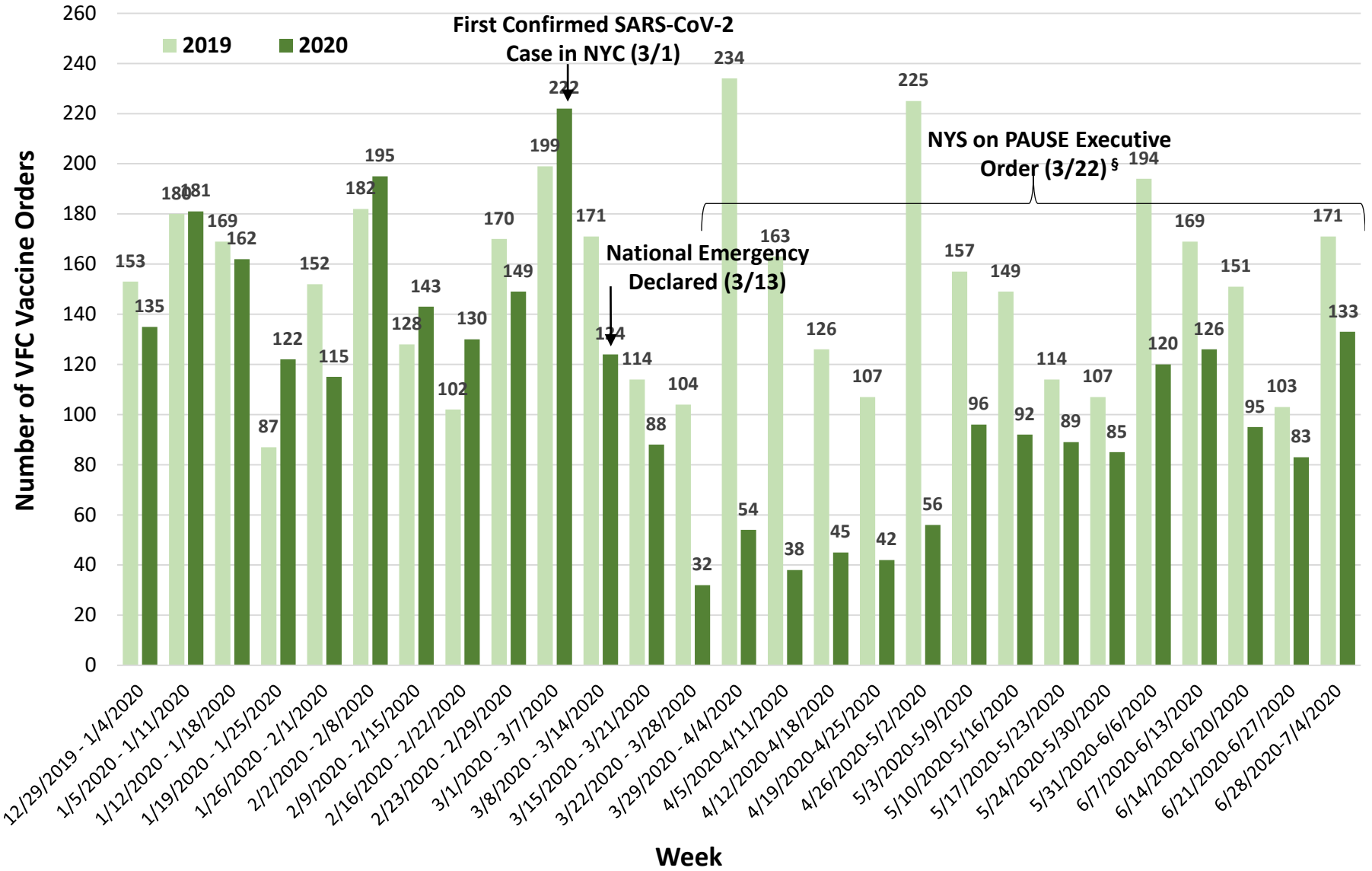
NYC Overall: -44.6%



Source: NYC Citywide Immunization Registry; data run on 6/16/2020
Note: Data restricted to vaccine doses administered to children ages <24 months with a current address in a valid NYC zip code; MOIGE excluded.
**Doses administered between 3/23 and 6/7 and entered into CIR by 6/14*
†Excludes MMR/MMRV, varicella and influenza vaccine doses and vaccines administered in pharmacies and nurseries
††The NYS on Pause Executive Order went into effect on March 22, 2020
†††Excludes zip codes with <300 doses administered during 2019 reference period

NYC Health

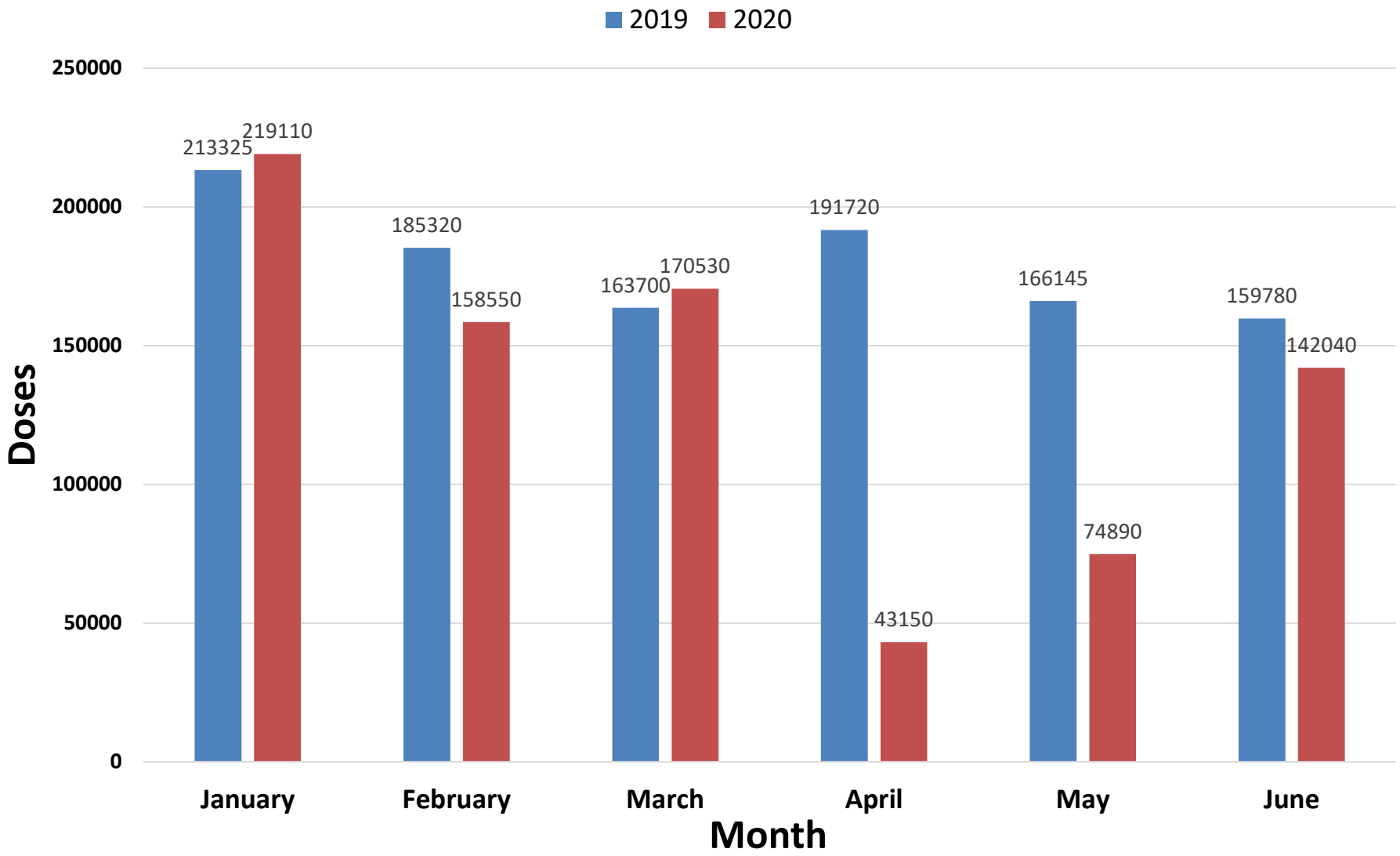
VFC Vaccine Orders Placed in New York City, by Week, 2019-2020



Source: Citywide Immunization Registry; data run on 7/7/2020

§The New York State on Pause Executive Order went into effect at 8pm on Sunday, March 22, 2020 requiring New Yorkers to stay at home to reduce the spread of SARS-CoV-2

VFC Vaccine Doses Ordered in New York City, by Month
2019-2020



Source: Citywide Immunization Registry; data run on 7/7/2020

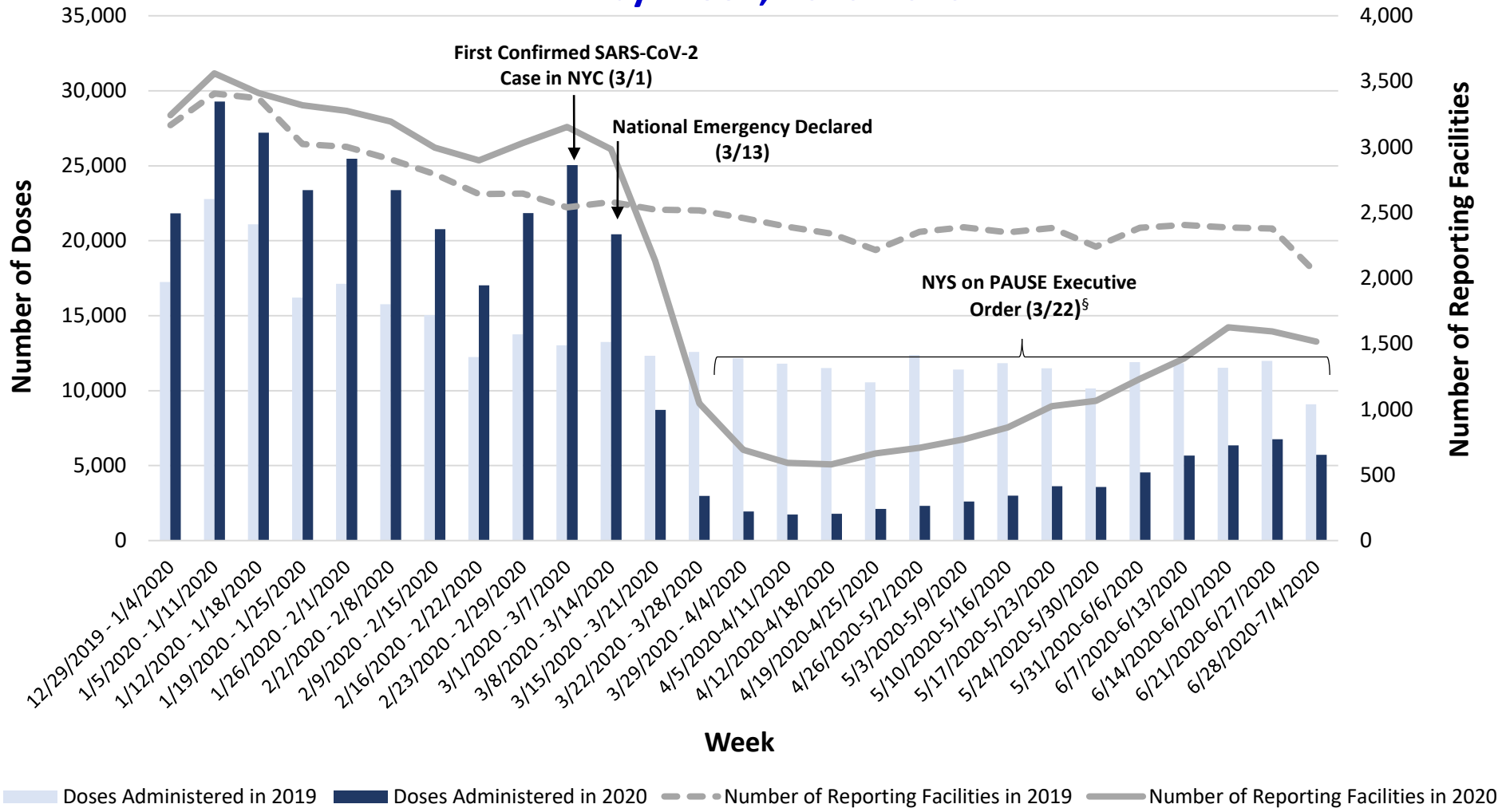
NYC DOHMH Response I

- 6 letters sent to pediatric-care community
- Mayor's press conference highlighted dropping immunization – generated a lot of media
- Provided personal protective equipment (PPE) to independent practices in highly impacted zip codes who needed it
- June 12th Childhood Immunization Coalition

NYC DOHMH Response II

- Practices able to order as much VFC vaccine as needed
- Additional VFC flu vaccine available for newly eligible children
- Reminders posted on VFC website
- Webinar series
- Public immunization campaign
- Supporting numerous networks with outreach and recall

Vaccines Administered to Adults Ages ≥19 Years in New York City, by Week, 2019-2020*



Source: Citywide Immunization Registry; data run on 7/6/2020

*Doses administered between 12/29/2019 and 7/4/2020 and enteredinto the CIR by 7/5/2020 compared to doses administered between 12/30/2018 and 7/6/2019 and entered by 7/7/2019. Week format is Sunday-Saturday.

§The New York State on Pause Executive Order went into effect at 8pm on Sunday, March 22, 2020 requiring New Yorkers to stay at home to reduce the spread of SARS-CoV-2

Going Forward

- Planning for school immunization requirements in the fall
- Considering other means to expand immunization services through partnerships, pop-up clinics, etc.
- Messaging importance of adult vaccinations
- Planning for expansion of flu vaccination
- Planning for COVID-19 vaccine availability

Thank You!

- Thank you to the amazing and dedicated staff at the Bureau of Immunization
  - Particularly to Marisa Langdon-Embry, Arianne Ramautar and Mohammed Almashhadani for conducting the analyses used in this presentation
- Acknowledge the extraordinary commitment of the NYC provider community
- My contact information: jzucker@health.nyc.gov
- Q&A at the end

NYC Health

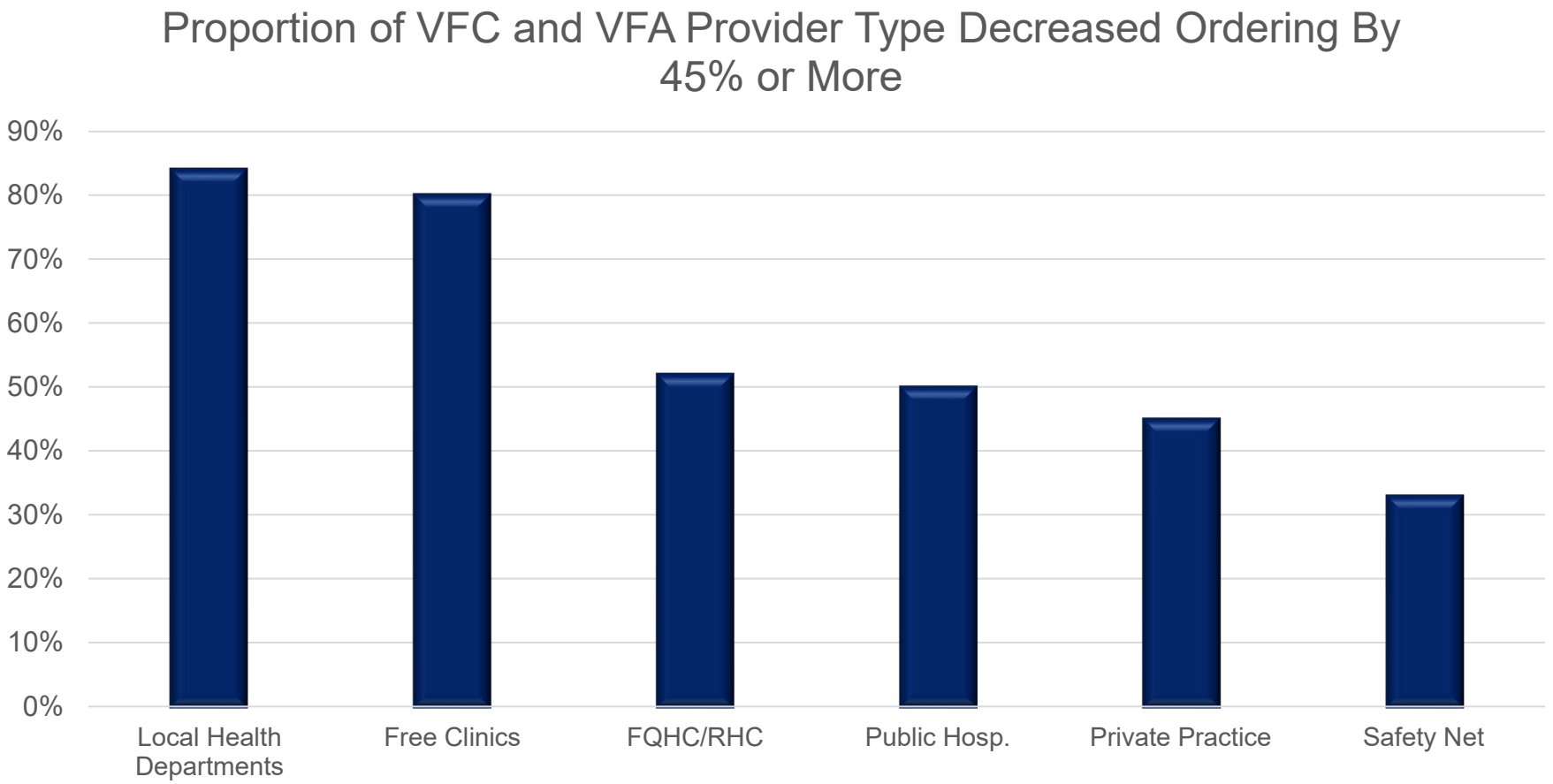
Christy Gray

Virginia

Immunization in the Time of COVID
AIRA Education Steering Committee Webinar
July 13, 2020

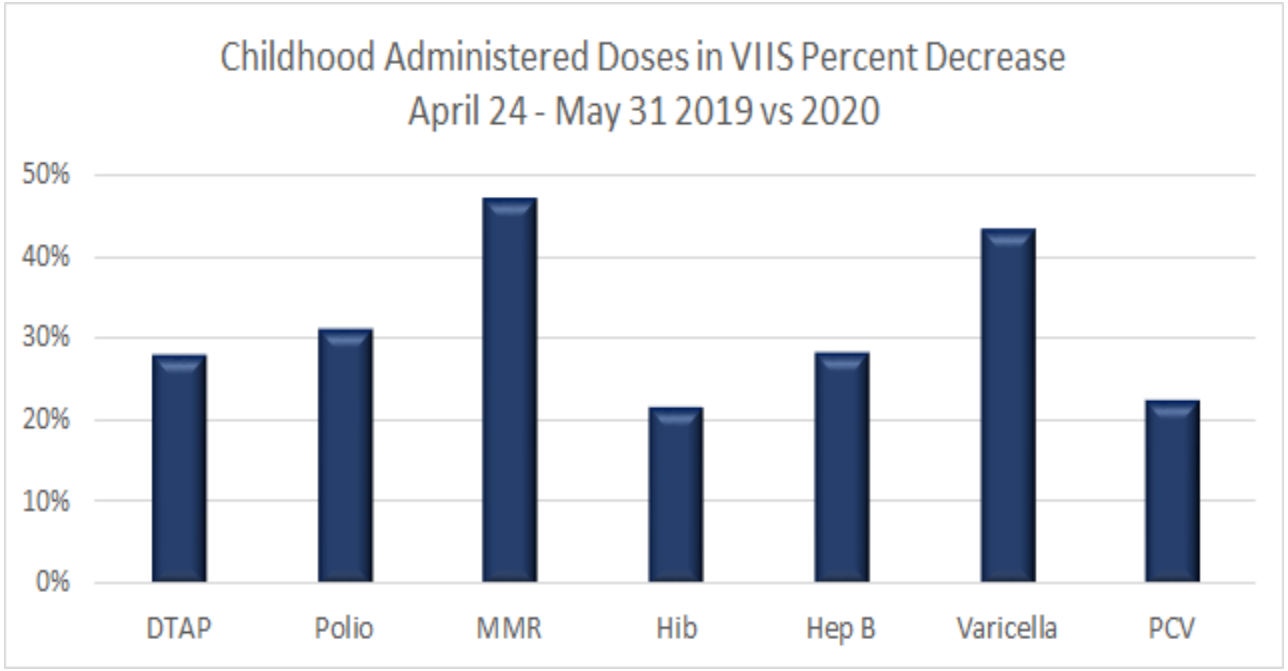
Christy Gray, MPH, CHES, CHTS-CP
Director, Division of Immunization
Virginia Department of Health

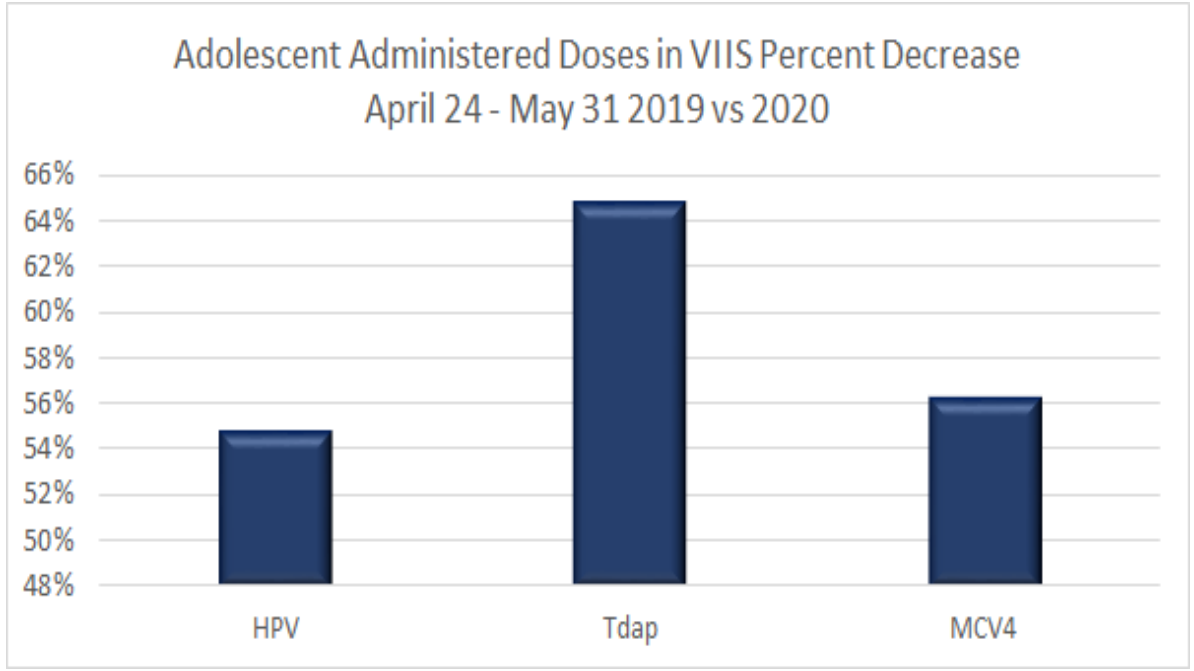
Vaccine Ordering Decreased VFC and VFA Providers



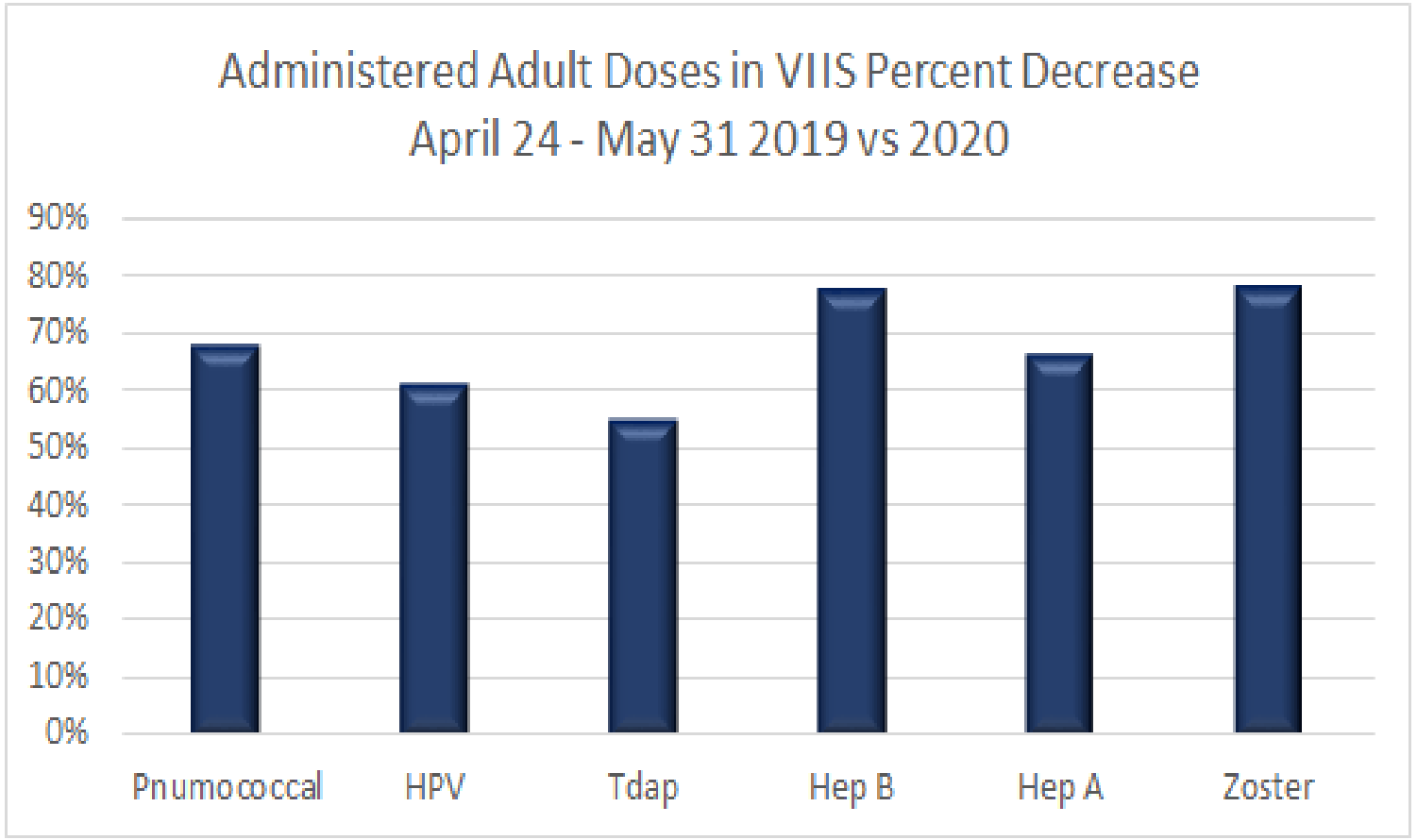
Vaccine Ordering March and April 2019 vs March and April 2020

Vaccine Administered Doses Down through May 2020

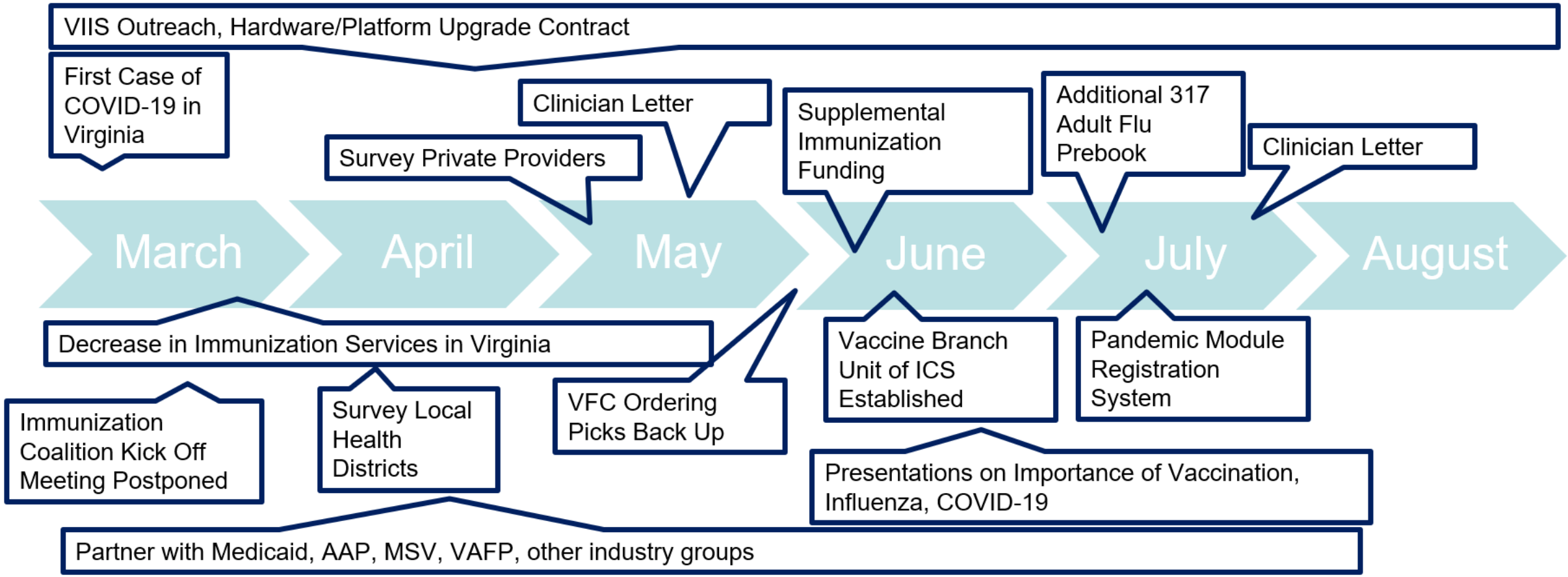




Vaccine Administered Doses Down through May 2020



COVID-19 Timeline in Virginia



Lessons Learned

- COVID-19 Pace of Change is Fast
- Link it to COVID-19
- Partner with Health Equity
- Identify Needs Now (centrally and locally)
- Staffing
  - Who can be tapped to do more of different jobs
  - Create Job Descriptions if you may need to surge staff

Eric Larson

AIRA

ACIP Routine and Catch-up Schedules

Birth to 15 Months

Vaccine	Birth	1 mo	2 mos	4 mos	6 mos
Hepatitis B (HepB)	1st dose	2nd dose			
Rotavirus (RV) RV1 (2-dose series); RV5 (3-dose series)			1st dose	2nd dose	See notes
Diphtheria, tetanus, & acellular pertussis (DTaP: <7 yrs)			1st dose	2nd dose	3rd dose
Haemophilus influenzae type b (Hib)			1st dose	2nd dose	See notes
Pneumococcal conjugate (PCV13)			1st dose	2nd dose	3rd dose
Inactivated poliovirus (IPV: <18 yrs)			1st dose	2nd dose	
Influenza (IIV)					

Children Age 4 Months through 6 Years

Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses	
		Dose 1 to Dose 2	Dose 2 to Dose 3
Hepatitis B	Birth	**4 weeks**	**8 weeks and at least 16 weeks after first dose.** Minimum age for the final dose is 24 weeks.
Rotavirus	**6 weeks** Maximum age for first dose is 14 weeks, 6 days.	**4 weeks**	**4 weeks** Maximum age for final dose is 8 months, 0 days.
Diphtheria, tetanus, and acellular pertussis	6 weeks	**4 weeks**	**4 weeks**
Haemophilus influenzae type b	6 weeks	**No further doses needed** if first dose was administered at age 15 months or older. **4 weeks** if first dose was administered before the 1st birthday. **8 weeks (as final dose)** if first dose was administered at age 12	**No further doses needed** if previous dose was administered at age 15 months or older. **4 weeks** if current age is younger than 12 months ***and*** first dose was administered at younger than age 7 months, ***and*** at least 1 previous dose was PRP-T (ActHib, Pentacel, Hiberix) or unknown. **8 weeks and age 12 through 59 months (as final dose)** if current age is younger than 12 months ***and*** first

https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html

Test Case Management

Forecasting for Immunization Test Suite (FITS)

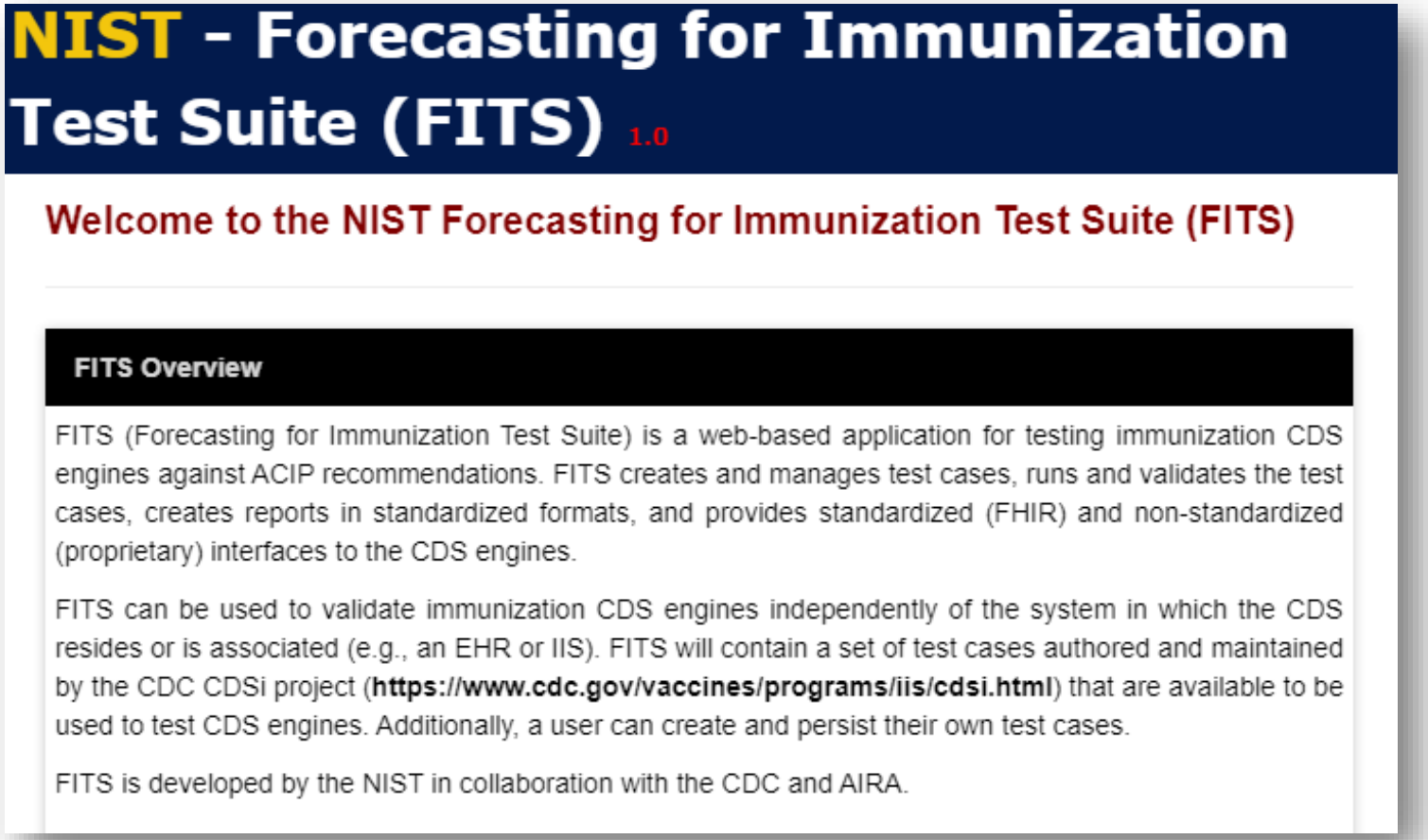
https://fits.nist.gov

Freely available for all to use. Simply register for a free account.

No install needed

Create and manage your own test cases

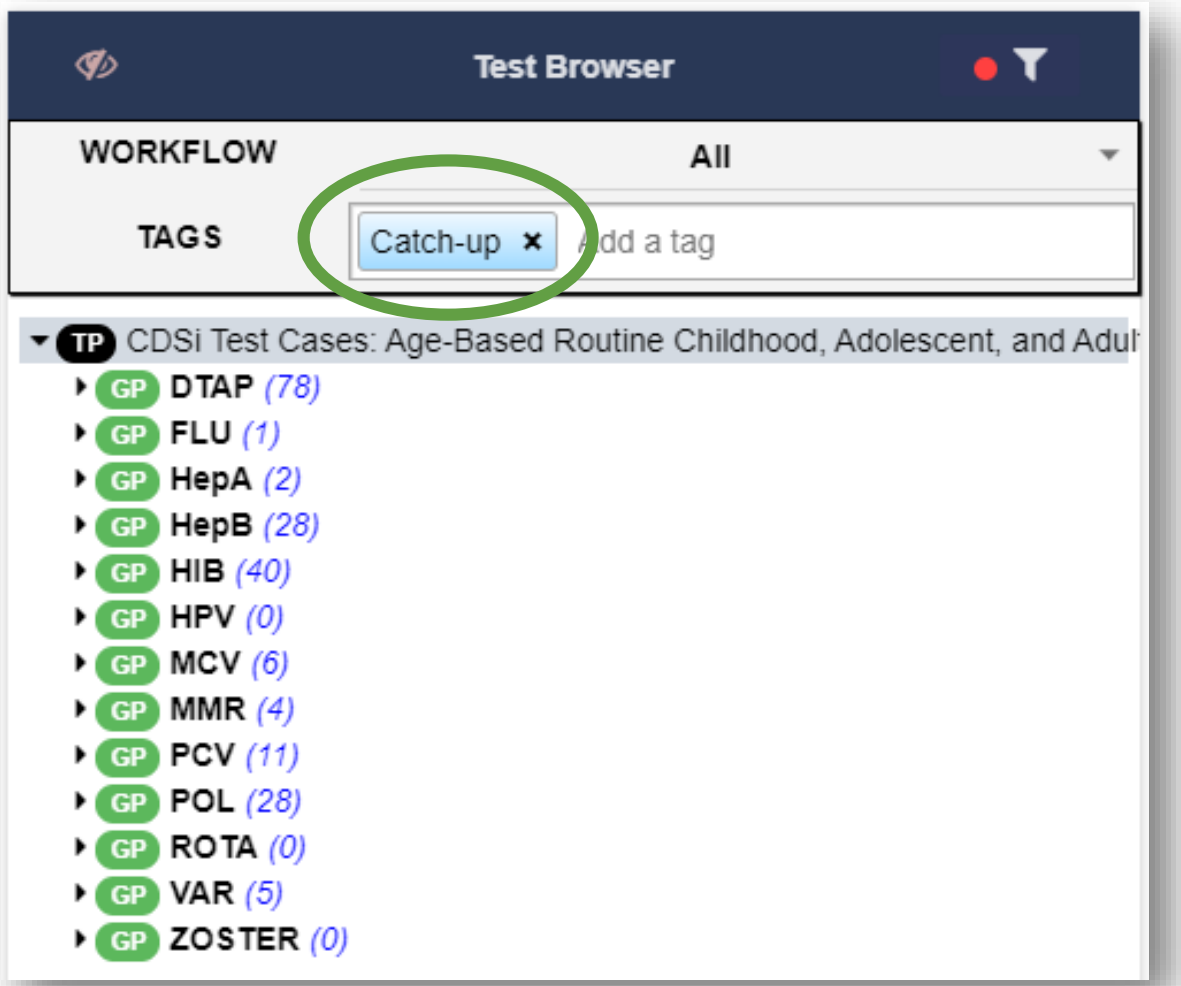
Also use, view, copy the CDSi test cases



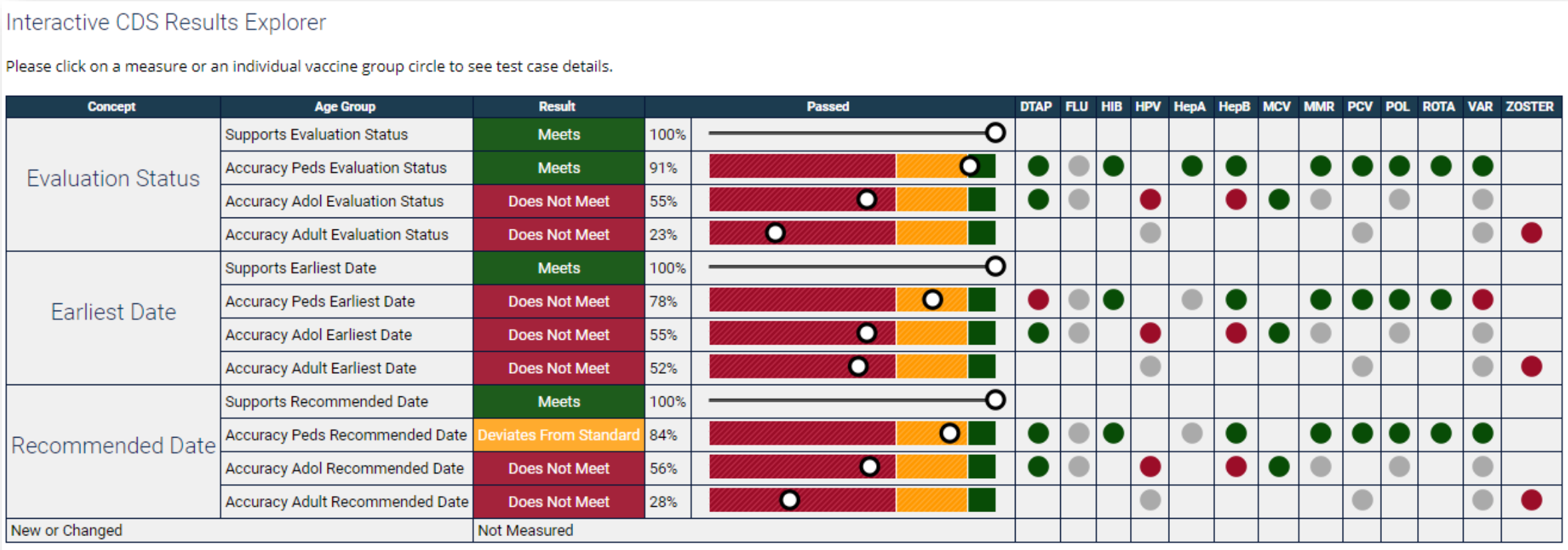
CDC CDSi Test Cases

Test Cases are “tagged” with various attributes (i.e., 0-6, 7-18, 19+, Grace-Period, Catch-up)

Tags can be used to filter test cases to topic areas of interest (e.g., Catch-up)



AART – Interactive CDS Results Explorer



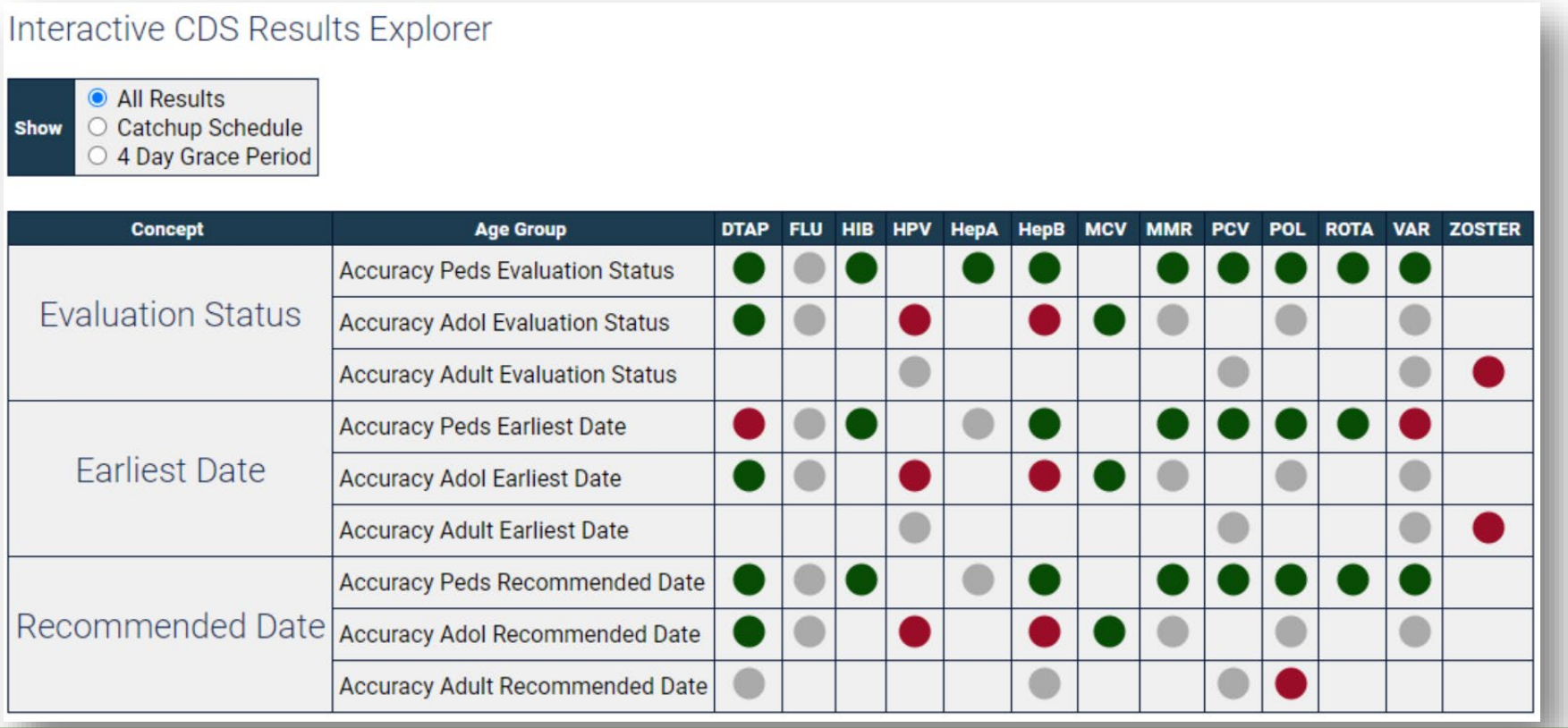
Interactive CDS Results Explorer

Please click on a measure or an individual vaccine group circle to see test case details.

Concept	Age Group	Result	Passed	DTAP	FLU	HIB	HPV	HepA	HepB	MCV	MMR	PCV	POL	ROTA	VAR	ZOSTER
Evaluation Status	Supports Evaluation Status	Meets	100%													
	Accuracy Peds Evaluation Status	Meets	91%	●	●	●		●	●		●	●	●	●	●	
	Accuracy Adol Evaluation Status	Does Not Meet	55%	●	●		●		●	●	●		●		●	
	Accuracy Adult Evaluation Status	Does Not Meet	23%				●					●			●	●
Earliest Date	Supports Earliest Date	Meets	100%													
	Accuracy Peds Earliest Date	Does Not Meet	78%	●	●	●		●	●		●	●	●	●	●	
	Accuracy Adol Earliest Date	Does Not Meet	55%	●	●		●		●	●	●		●		●	
	Accuracy Adult Earliest Date	Does Not Meet	52%				●					●			●	●
Recommended Date	Supports Recommended Date	Meets	100%													
	Accuracy Peds Recommended Date	Deviates From Standard	84%	●	●	●		●	●		●	●	●	●	●	
	Accuracy Adol Recommended Date	Does Not Meet	56%	●	●		●		●	●	●		●		●	
	Accuracy Adult Recommended Date	Does Not Meet	28%				●					●			●	●
New or Changed		Not Measured														

AART – Interactive CDS Results Explorer

Enhancing to filter test cases (e.g., Catch-up, Grace Period)

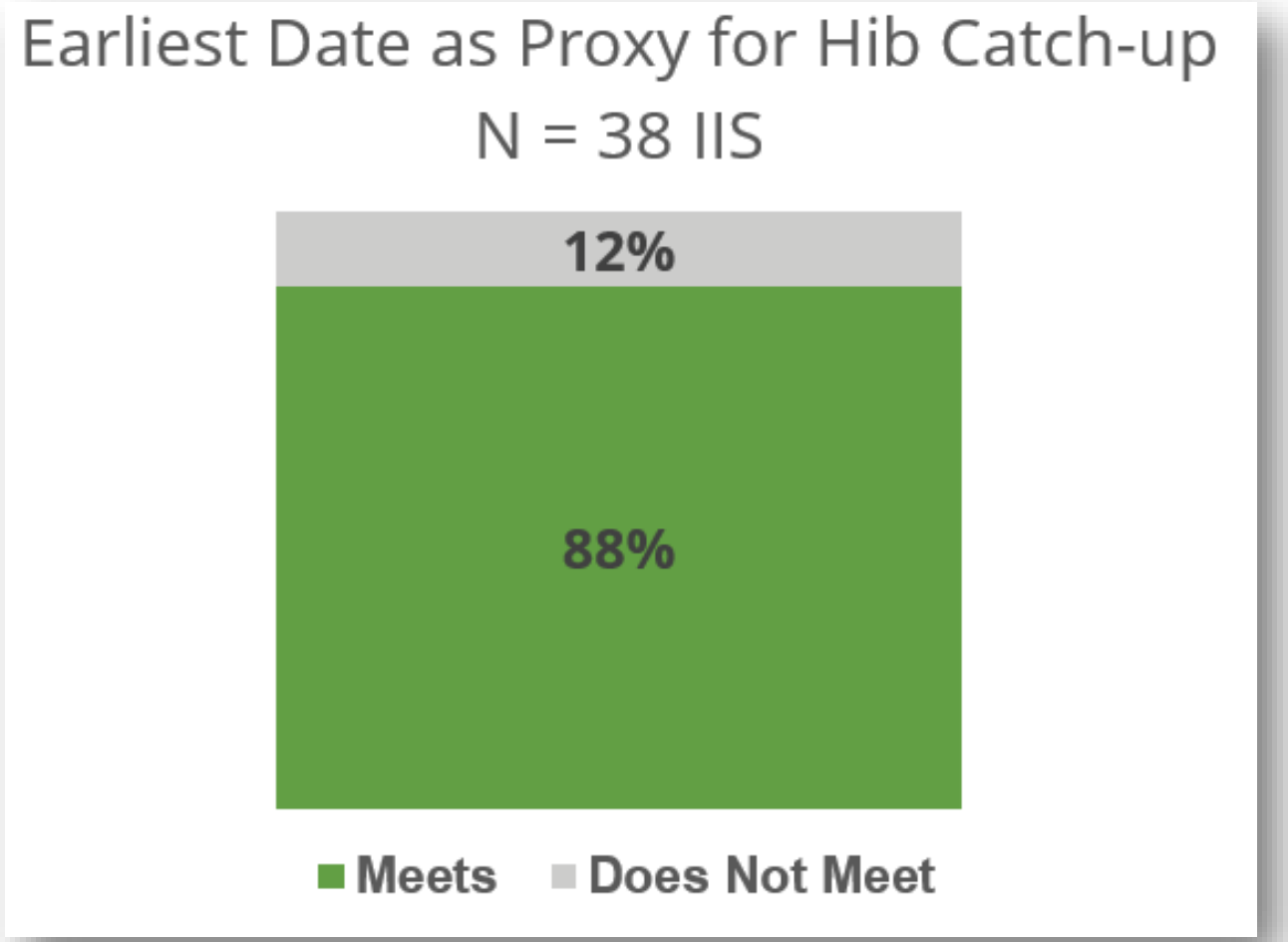


Interactive CDS Results Explorer

Show
- All Results
- Catchup Schedule
- 4 Day Grace Period

Concept	Age Group	DTAP	FLU	HIB	HPV	HepA	HepB	MCV	MMR	PCV	POL	ROTA	VAR	ZOSTER
Evaluation Status	Accuracy Peds Evaluation Status	●	●	●		●	●		●	●	●	●	●	
	Accuracy Adol Evaluation Status	●	●		●		●	●	●		●		●	
	Accuracy Adult Evaluation Status				●					●			●	●
Earliest Date	Accuracy Peds Earliest Date	●	●	●		●	●		●	●	●	●	●	
	Accuracy Adol Earliest Date	●	●		●		●	●	●		●		●	
	Accuracy Adult Earliest Date				●					●			●	●
Recommended Date	Accuracy Peds Recommended Date	●	●	●		●	●		●	●	●	●	●	
	Accuracy Adol Recommended Date	●	●		●		●	●	●		●		●	
	Accuracy Adult Recommended Date	●					●			●	●			

Hib Catch-up: Proxy Analysis



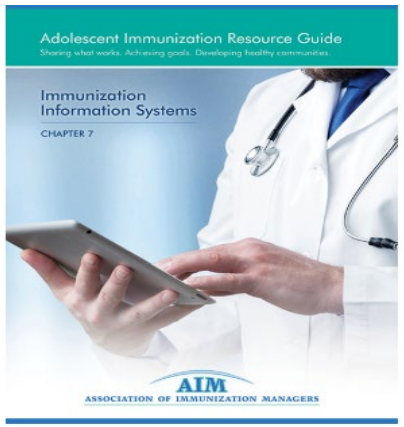
Resources

AIM & AIRA

Reminder Recall Resources

- RR Adolescent Post Cards
  - Download and customize 5 VERSIONS
  - Files in: design package, Adobe Pro, and Canva
  - Use for Centralized RR or send resource to providers
    www.immunizationmanagers.org/Adol_MediaMaterials

- Adolescent Resource Guide
  - CH7: IIS Focused Adolescent RR
    www.immunizationmanagers.org/AdolGuide

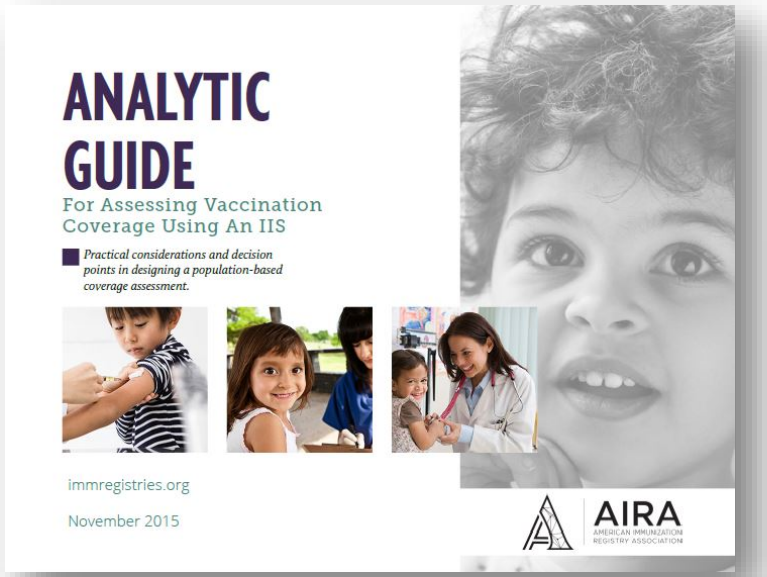


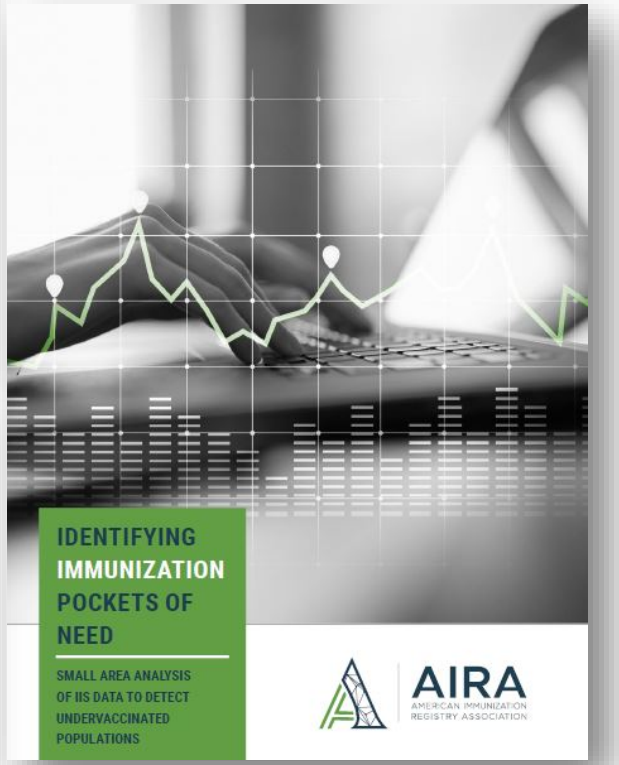
Reminder Recall Webinar Archvie

- Pfizer overview of its free reminder/recall (RR) program - Vaccine Adherence in Kids (VAKs)
- Louisiana lessons learned from adolescent back to school RR campaign
- ttps://www.immunizationmanagers.org/ReminderRecallWebinar

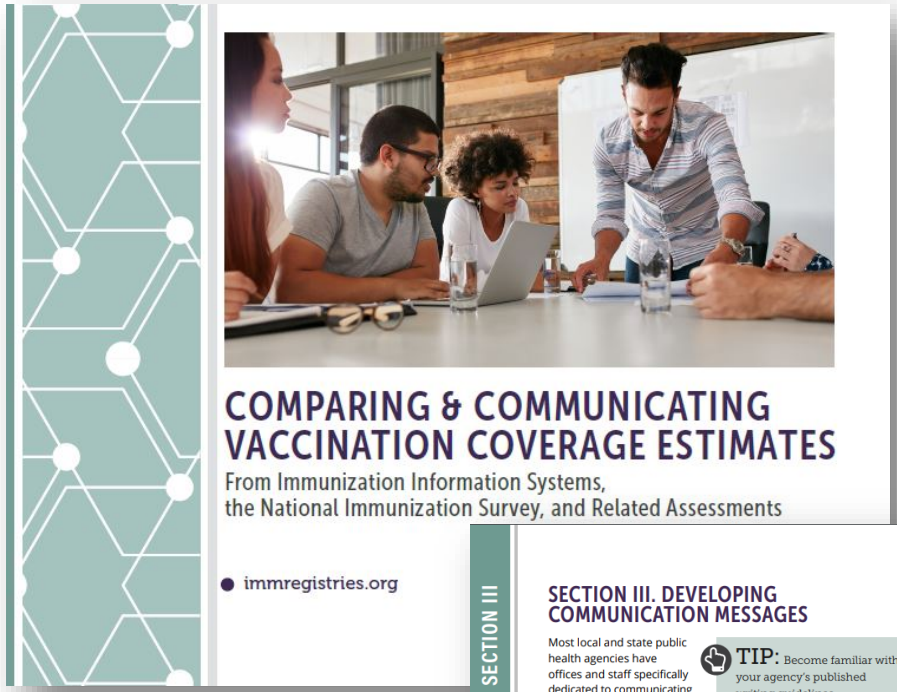
AIRA Resources: Examine Your Data

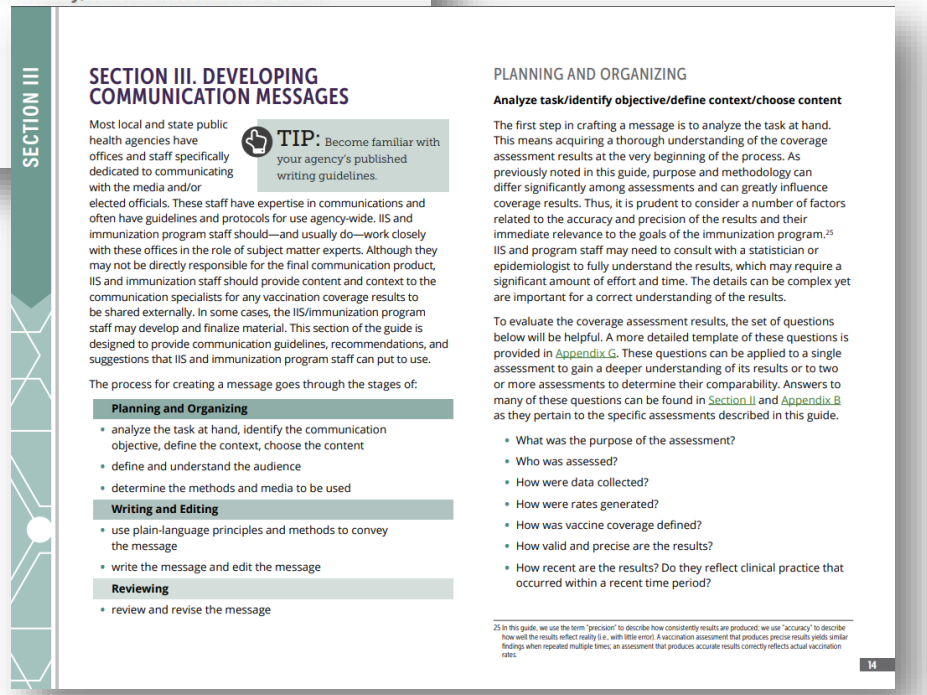
https://repository.immregistries.org





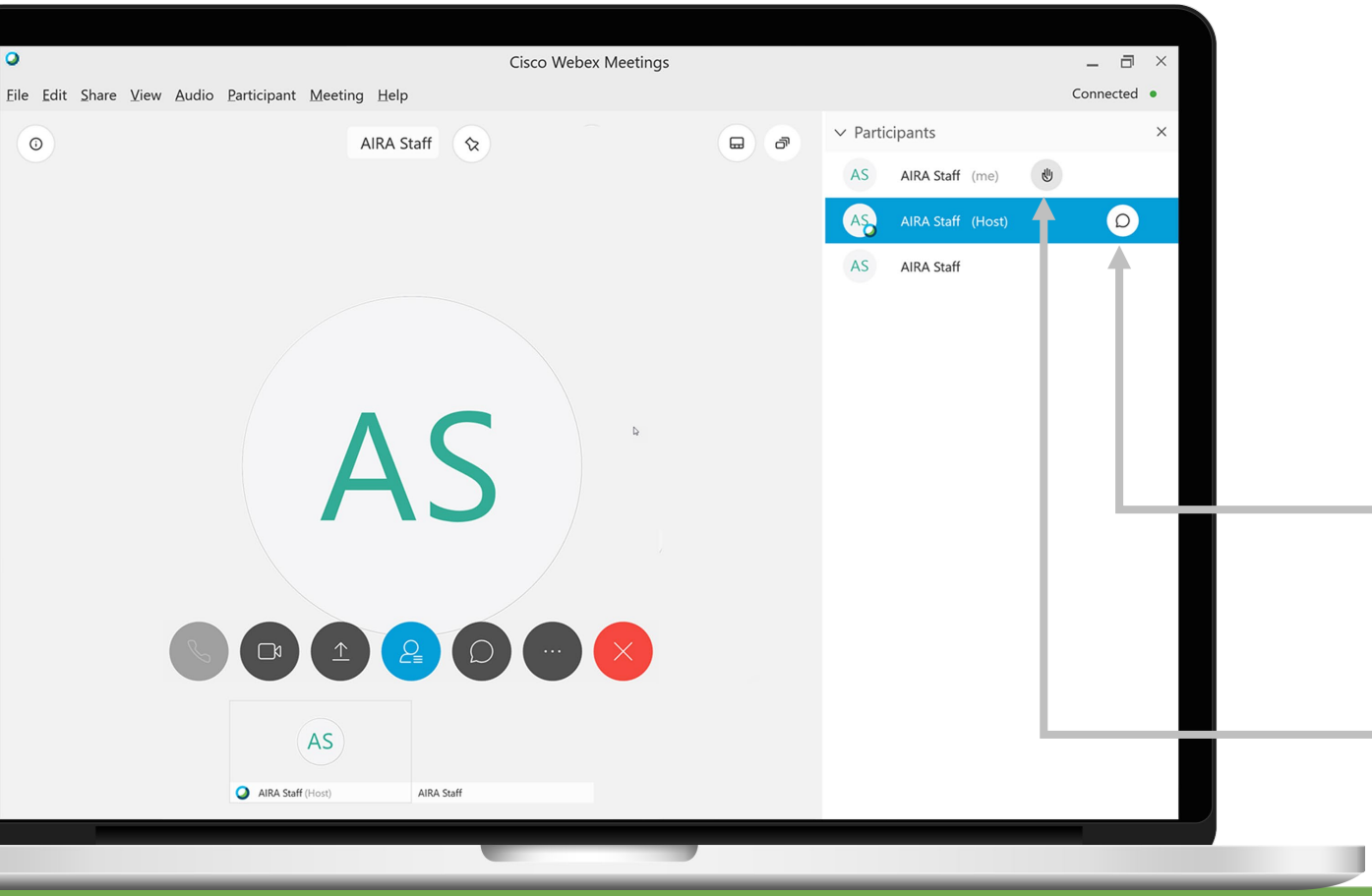
AIRA Resources: Share Your Results





Work with Providers to Improve Immunization Coverage

Question & Answer



How do I ask a question?

- There will be time allotted for Q&A following the presentation, to unmute your line press *6
- Via WebEx:

Select the chat icon next to the host and type question into the chat box.

Select the hand icon next to your name and you will be called on.

Thank you to our presenters, and thanks to all of you for joining us!

A brief evaluation survey will be sent out following this webinar