

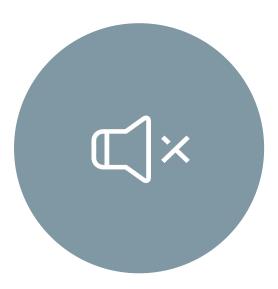
### Discovery Session: AIRA 2022 National Meeting Highlights

AIRA Discovery Session May 23, 2022 4 PM EST

## AIRA Discovery Session



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



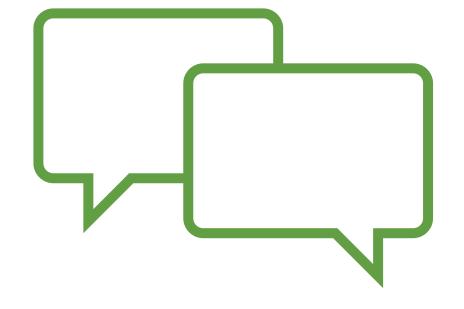
All phone lines are muted



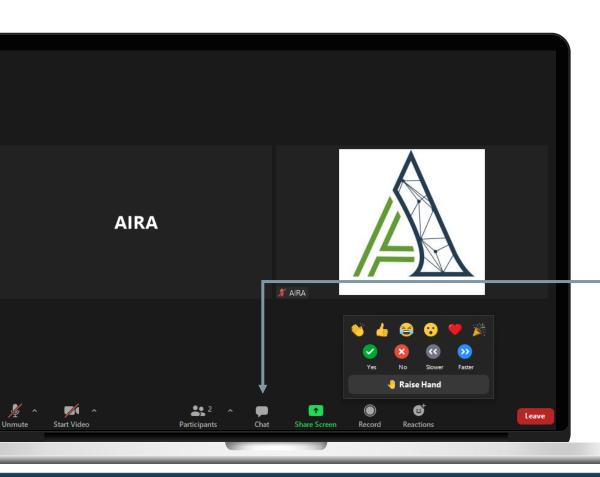
## Technical Support

If you experience any technical issues during the meeting, please contact

Sarah Stein via direct message in the Chat.



## Questions



#### How do I ask a question?

There will be time allotted for Q&A following the presentations.

If you think of a question during the presentations:



Select the chat icon and type your question into the chat box.

## National Meeting Recap

Alison Chi, AIRA







## Keynote Speaker: Dave Ross, ScD

President and CEO of The Task Force for Global Health

#### **Looking Ahead for ISD**

- Opportunities moving forward
  - Modernizing Immunization Information Systems
  - Vaccine Confidence and Demand/ Health Equity
  - Routine Immunizations Addressing Catch-Up
  - Expansion of Adult Imi
- Recognition
  - Hard work continues!

#### **Build on COVID-19 Lessons Learned**

#### **Preliminary 5 Top Lessons Learned (POB-oriented)**

- 1) Need to strengthen and sustain immunization infrastructure, including for adults, at the awardee and POB levels
- 2) Need to be clear with our guidance
- 3) We (you and us) are not always the key decision-makers during a pandemic
- 4) Need to improve our communication channels and processes
- 5) Need to strengthen our partnerships with FEMA, ASPR, and OASH

#### **CDC Supports IIS by**



Providing **funding and guidance** to achieve priorities

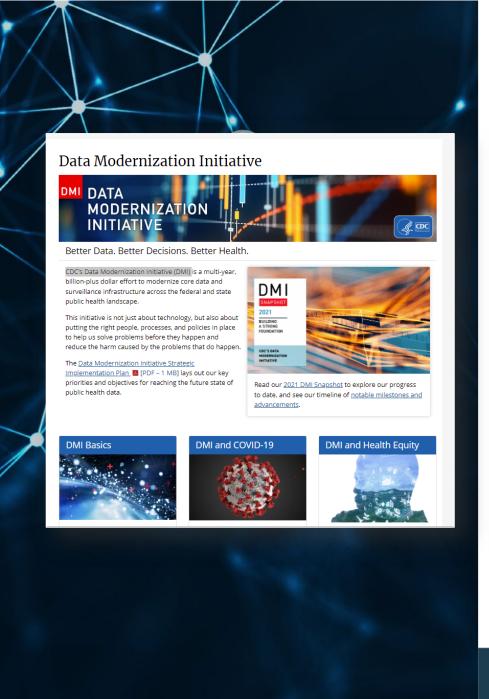


Offering direct support to awardees through technical assistance, engagement, and communications



Engaging **technical** and national **partners** to strengthen the IIS community





#### Data Modernization Panel

#### **MODERATOR**

Rebecca Coyle, MSEd, Executive Director, AIRA

#### **PANELISTS**

**Daniel B. Jernigan, MD, MPH**, Deputy Director for Public Health Science and Surveillance, Centers for Disease Control and Prevention

**Micky Tripathi, PhD, MPP**, National Coordinator for Health Information Technology, Office of the National Coordinator for Health Information Technology

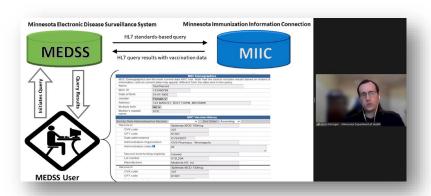
Lynn Gibbs-Scharf, MPH, Branch Chief, CDC/NCIRD/ISD/IISSB

Arun Srinivasan, MS, PhD, Deputy Director, CDC/NCIRD/OD/OI







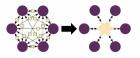


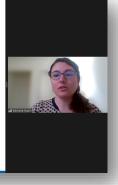
#### Streamlined technology through centralized infrastructure



#### Single Connection Point

- Integration testing consolidated and completed once with one hub
- Eliminates need to connect to jurisdictions individually (point-to-point)









- Required Documentation Upload
- Process within DOH

Washington State Department of Health | 8





#### Leadership Award



Angela De La Cruz Texas Department of State Health Services



Marie Hartel Tennessee Department of Health



Christy Gray Virginia Department of Health



Karen Meranda Washington State Department of Health

#### Exiting Excellence

Award

Leadership

is about making others better as a result of your presence and making sure that impact lasts in your absence.



Amy Metroka NYC Department of Health & Mental Hygiene



Stuart Weinberg Vanderbilt University Medical Center



## THANK YOU TO ALL OF OUR 2021-2022 SUPPORTING MEMBERS!



















































## 2022 – A Record Setting Year

#### 2021

462 attendees

#### 2022

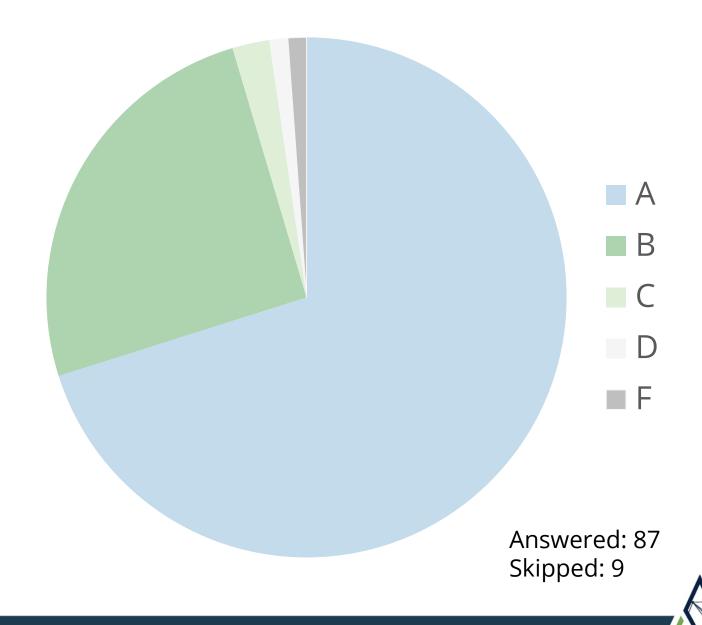
- 660 registrants!
  - 609 participants attended the opening plenary
  - Plenaries averaged 562 attendees
  - Breakouts averaged 175 attendees



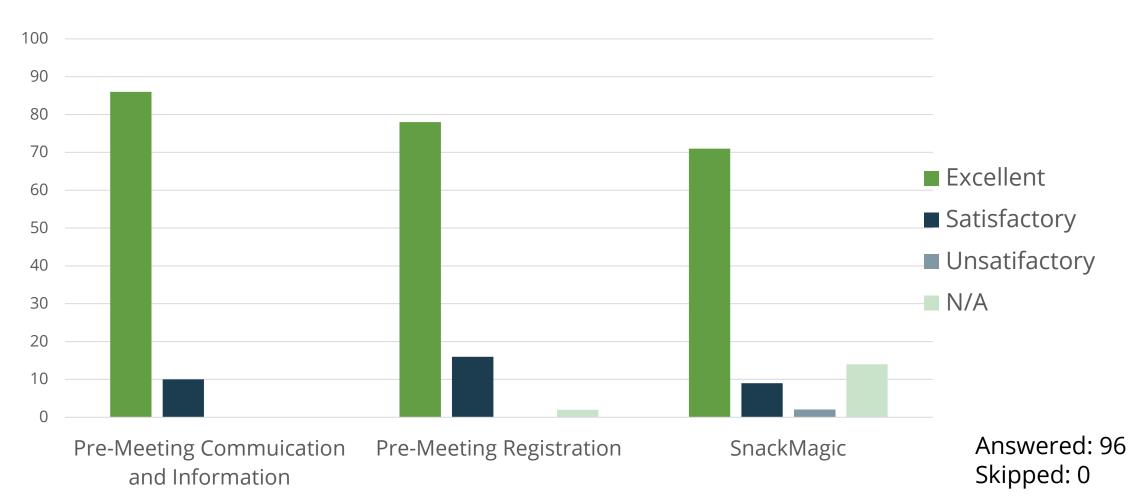
## Who Attended

Position Classification	#
CDC Staff	23
IIS Implementer Staff	33
IIS Manager	58
Immunization Program Manager	31
Other IIS Staff	152
Other Immunization Program Staff	115
President or CEO	6
Technical Staff (e.g. IT)	62
Other	180

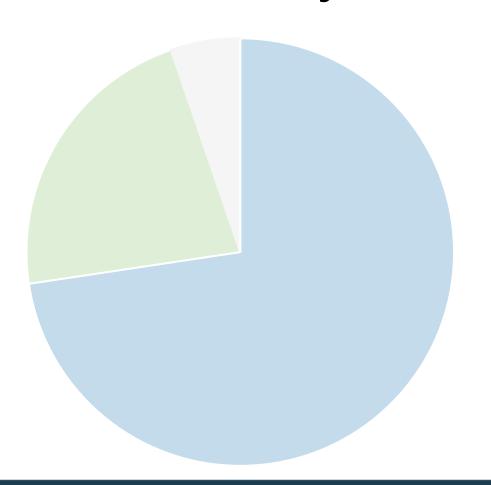
What is your overall grade for the AIRA 2022 National Meeting, Virtual Edition?



## Meeting Logistics



# How relevant was this meeting's content to the work that you do?



- Very Relevant
- Relevant
- Somewhat Relevant
- I Would Like My Time Back Please



## Some takeaways

We still have a lot of work to do! And we're all in good company and well supported in the community.

The time for action is now!
We need to use COVID to
our advantage to leverage
support and education
with our partners and
political representatives.

Data modernization initiative is huge and it's going to impact IIS!



# Additional comments, jokes, compliments, and criticisms

We all need to pitch in and get Eric Larson some hats for any future game shows. Great job everyone!

Dave needs more hats

There was a great balance of fun and learning. The bucket list was a nice touch too! I'm really looking forward to going back to revisit presentations/slides that went too fast.

I honestly haven't seen any organization put on an event the way the AIRA team does!!
It's welcoming, very informative, and fun! You guys ROCK!





## Today's Speakers

- Marisa Langdon-Embry, NYC
- Sukhesh Sudan, Michigan
- Ryan Malosh, Michigan



# Impact of the COVID-19 Pandemic on Vaccination Rates in New York City

Marisa Langdon-Embry, MSc Special Assistant to the Assistant Commissioner Bureau of Immunization New York City Department of Health and Mental Hygiene

AIRA Discovery Session May 23, 2022



### Background

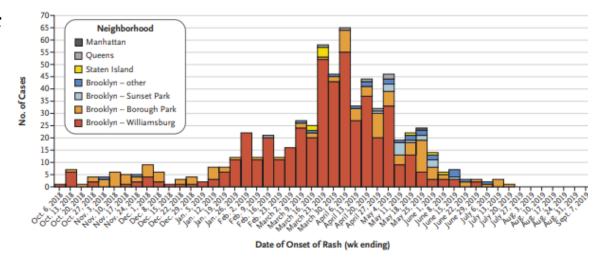
- The COVID-19 pandemic has raised concerns about decreasing vaccination rates globally and within the United States
- An estimated 23 million children worldwide missed routine vaccinations in 2020, placing millions of children at risk of lifethreatening vaccine-preventable diseases



### Background

- In New York City (NYC), declining vaccination is of concern in light of recent outbreaks of VPDs
  - In the last decade, NYC has experienced periodic outbreaks of mumps, pertussis, varicella and measles
  - Maintaining high population immunity is critically important

#### Measles Outbreak, NYC, 2018-2019



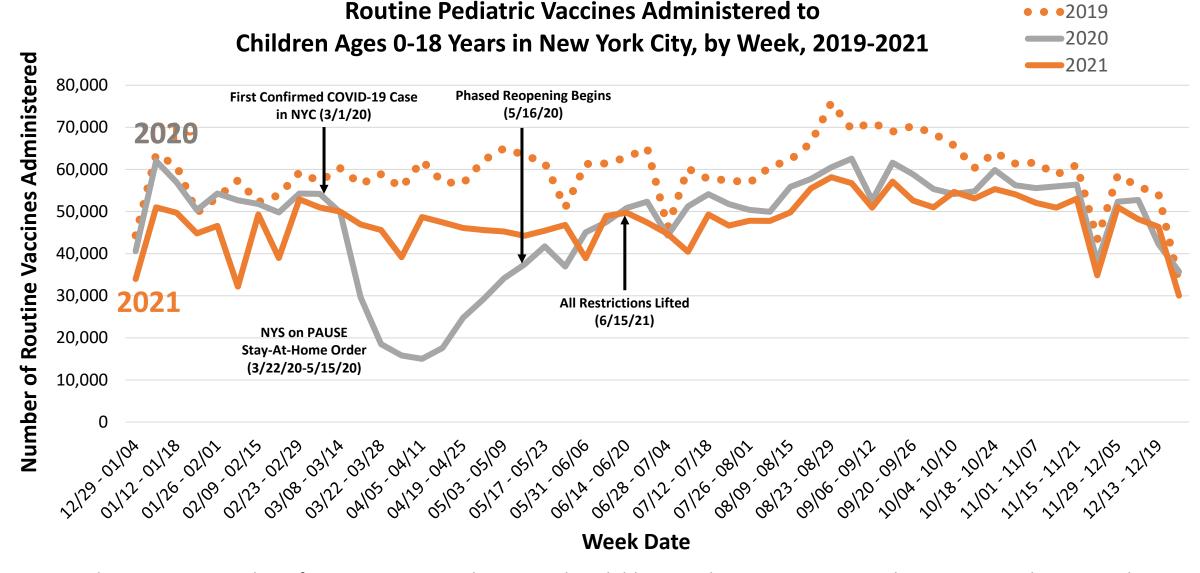
Largest measles outbreak in U.S. since 1992 (n=649 cases)



### Citywide Immunization Registry (CIR)

- NYC's Immunization Information System (IIS)
  - Implemented citywide in 1997
- Population-based
  - Birth certificates loaded into CIR twice a week
- Mandatory reporting of immunizations for children 0-18 years
  - Reporting for adults ≥ 19 years requires consent
- Contains >13.8 million patient records and >147 million immunizations
  - Timely; ~81% of immunizations reported in ≤1 day; 96% reported within 1 month of administration





In 2021, the aggregate number of routine vaccines administered to children aged 0-18 years was **16%** lower compared to 2019. There were 450,000 fewer pediatric doses administered (2.45 million in 2021 compared to 2.9 million in 2019)

<sup>\*</sup>Excludes influenza vaccines, COVID-19 vaccines and immunizations administered in pharmacies and nurseries

#### Objectives

 To better understand the effect of the COVID-19 pandemic on childhood and adolescent vaccination rates in New York City



## UTD Coverage for 19-35-Month-Olds: 4:3:1:3:3:1:4 Vaccine Series

	No. of	Timing of doses								
Vaccine	Doses	Birth	1 mo	2 mos	4 mos	6 mos	9 mos	<b>12</b> mos	15 mos	
Diphtheria, tetanus & acellular pertussis	4			1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>			4 <sup>th</sup>	
(DTaP)	4			dose	dose	dose			dose	
Inactivated poliovirus	3			1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>				
(IPV)	3			dose	dose	dose		se		
Measles, mumps, rubella	1							1	st	
(MMR)	Τ							dose		
Haemophilus influenzae type B	3 or 4*			1 <sup>st</sup>	2 <sup>nd</sup>			3	rd	
(Hib)				dose	dose			do	se	
Hepatitis B	3	1 <sup>st</sup>	2 <sup>nd</sup>			3 <sup>rd</sup>		3 <sup>rd</sup>		
(Hep B)	3	dose	dose			dose		se		
Varicella	1							1	st	
								do	se	
Pneumococcal conjugate	4	4		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>		4	th	
(PCV13)				dose	dose	dose		do	se	

Source: <u>Birth-18 Years Immunization Schedule | CDC</u>



<sup>\*</sup>The Hib vaccine series can be completed with 3 or 4 doses depending on the vaccine product administered

## UTD Coverage for 13-17-Year-Olds 1:1:3 Vaccine Series

	No. of	No. of Timing of doses		
Vaccine	Doses	11-12 yrs	13-15 yrs	16-18yrs
Tetanus, diphtheria & acellular pertussis (Tdap)	1	1 <sup>st</sup> dose		
Meningococcal (MenACWY)	1	1 <sup>st</sup> dose		Booster
Human papillomavirus (HPV)	2 or 3*	2 or 3-dose series		

Source: Birth-18 Years Immunization Schedule | CDC



<sup>\*</sup>The HPV vaccine series can be completed with 2 or 3 doses depending on the age of initiation and the amount of time elapsed between the first two doses

#### Methods

- Quarterly vaccine coverage estimates from 12/31/2019 to 12/31/2021 were calculated using data from CIR and US Census population estimates
  - For 19-35-month-olds: UTD coverage with the 4:3:1:3:3:1:4 series and individual vaccines assessed
  - For 13-17-year-olds: UTD coverage with the 1:1:3 series
- <u>Numerator</u>: Children who received all valid doses of vaccine series; current address in NYC; met age criteria; MOGE\* excluded (based on CIR)



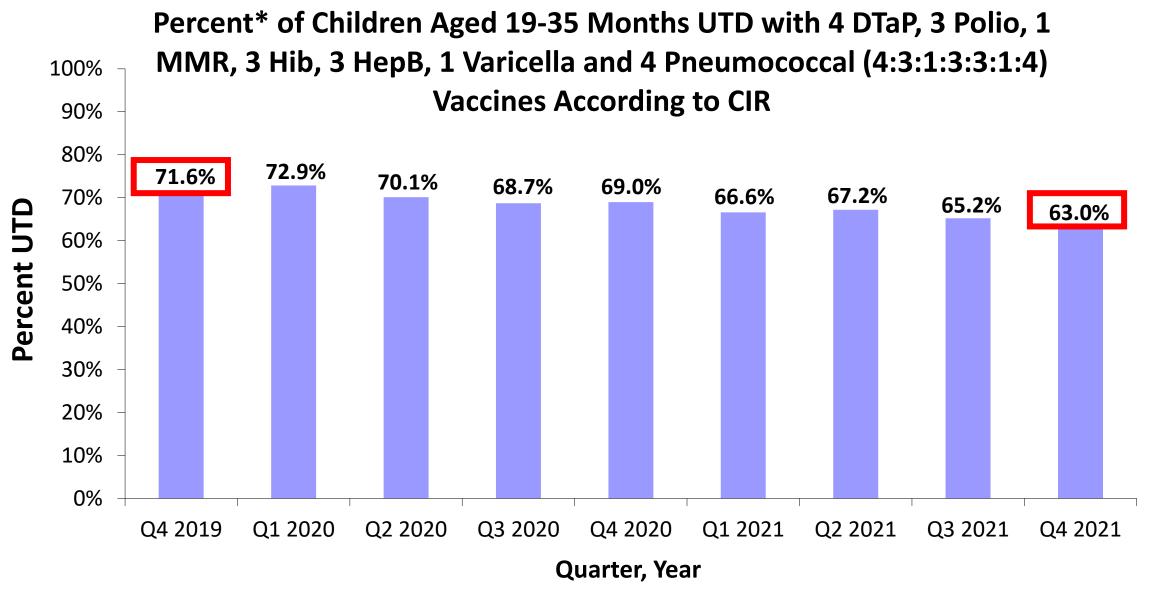
### Methods (cont.)

- Denominator: 2021 Vintage population estimates for 2019-2020
  - Intercensal estimates produced by the U.S. Census Bureau and adjusted by the NYC Department of City Planning and NYC DOHMH to account for neighborhood-level population changes
  - Updated each year
  - Used by NYC DOHMH as population denominators to calculate rates
- Data were analyzed by race/ethnicity and NYC ZIP code of residence



### Results





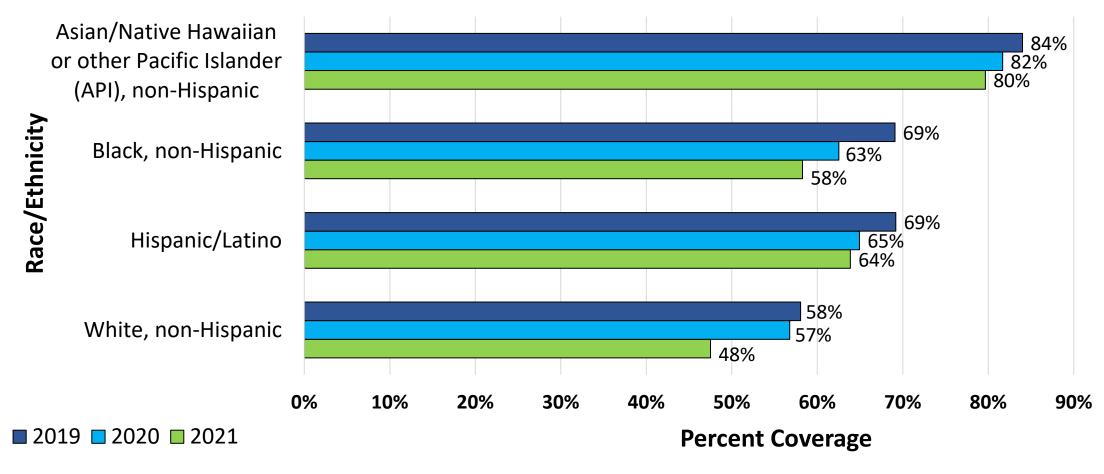
<u>Numerator</u>: Number of children aged 19-35 months with last known address in NYC who completed 4:3:1:3:3:1:4 series; <u>Denominator</u>: Number of children aged 19-35 months according to DOHMH neighborhood population estimates, modified from US Census (2019-2020)

# UTD Coverage Rates among 19-35-Month-Olds, by Vaccine

Vaccine	Pre-Pandemic Coverage (as of 12/31/2019)	Current Coverage (as of 12/31/2021)	Percentage Point Difference	Percent Change
4:3:1:3:3:1:4 Series	71.6%	63.0%	-8.6	-12%
DTaP (4 doses)	77.6%	68.5%	-9.0	-12%
Polio (3 doses)	90.5%	84.1%	-6.4	-7%
MMR (1 dose)	90.9%	80.8%	-10.1	-11%
Hib (3-4 doses)	86.0%	77.1%	-8.9	-10%
Hep B (3 doses)	88.4%	81.8%	-6.6	-7%
Varicella (1 dose)	88.7%	80.5%	-8.2	-9%
Pneumococcal (4 doses)	83.4%	74.9%	-8.5	-10%



# 4:3:1:3:3:1:4 Series UTD Coverage, by Race/Ethnicity



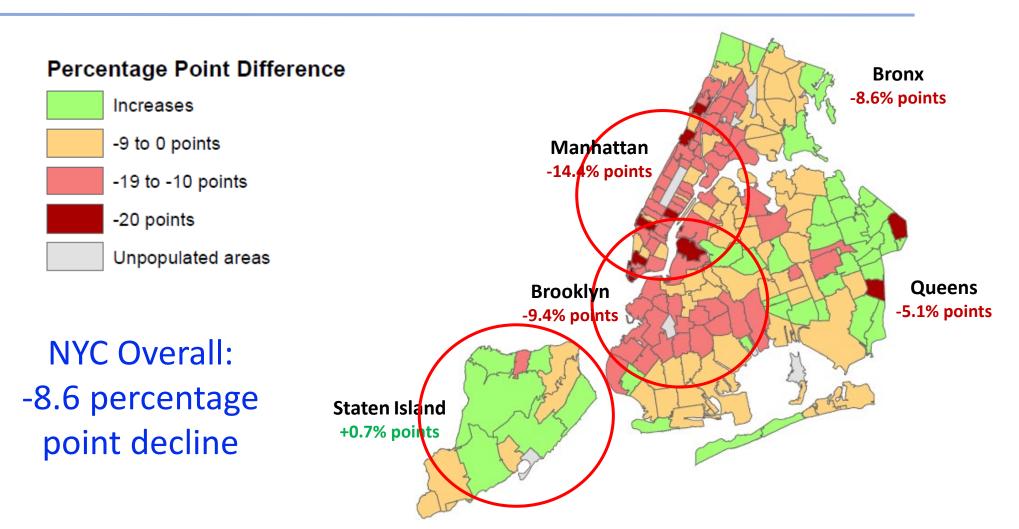
Source: NYC Citywide Immunization Registry (numerators); 2021 Vintage population estimates for 2019-2020 (denominators)

Note: Vaccination rates for children with unknown race/ethnicity or who identify as other categories, including two or more races, are not available. The Hispanic/Latino category includes children of any race. Race/ethnicity information was missing in 6-7% of CIR records for each year.

Health

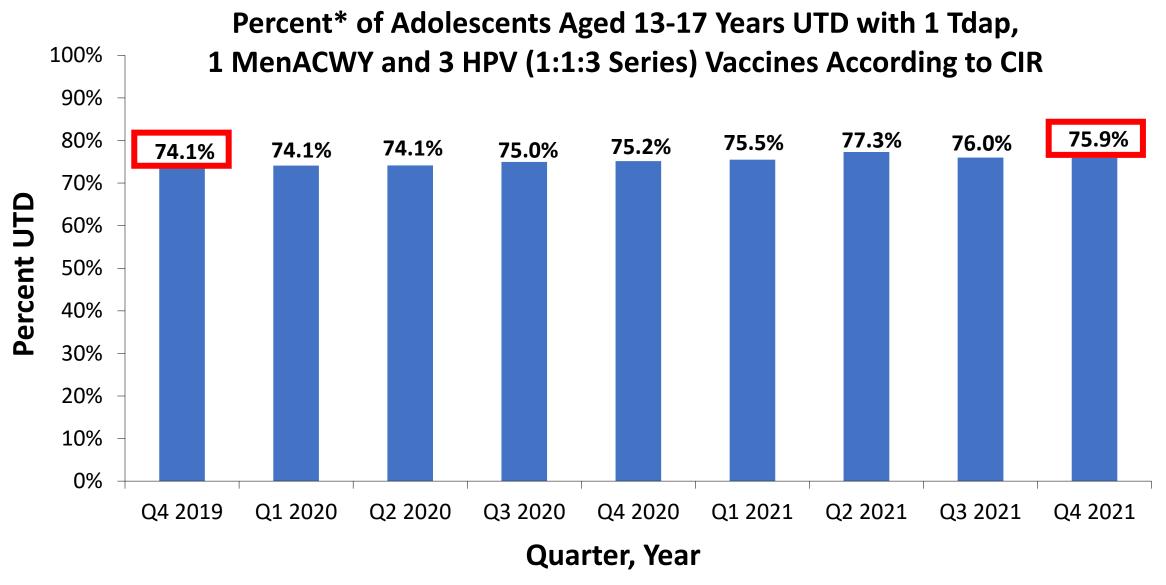


## Percentage Point Change in UTD Coverage for 19-35-Month-Olds, by NYC ZIP Code, Q4 2021 vs Q4 2019





Source: NYC Citywide Immunization Registry (numerators); Vintage 2021 Population Estimates for 2019-2020 (denominator) †Data restricted to children with a current address in a valid NYC ZIP code; MOGE excluded.



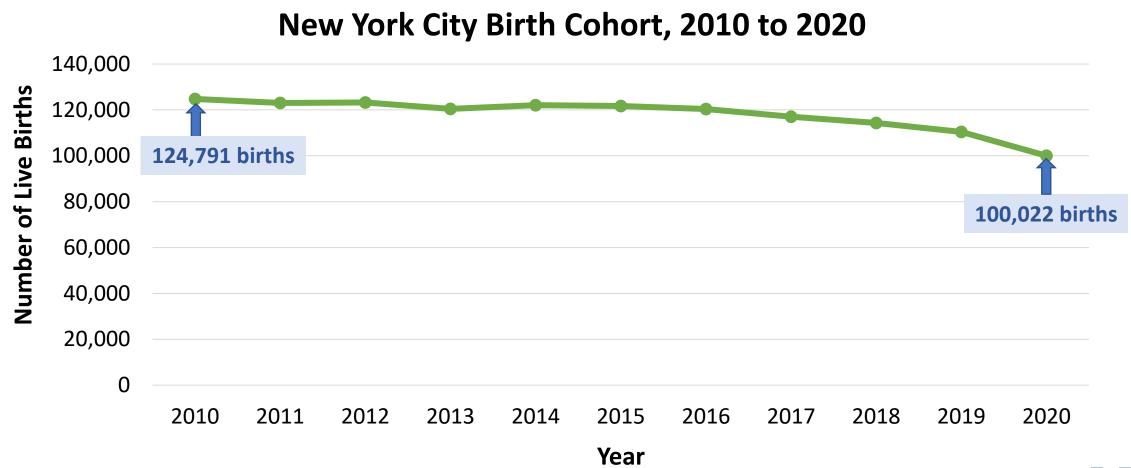
<u>Numerator</u>: Number of adolescents aged 13-17 years with last known address in NYC who completed 1:1:3 series <u>Denominator</u>: Number of adolescents aged 13-17 years according to DOHMH neighborhood population estimates, modified from US Census (2019-2020)

# Reasons for the Decline Among Younger Children:

- Decreased in-person well-care visits during the COVID-19 pandemic
  - Clinic closures
  - Reduced operating hours
  - Increased use of telemedicine
- Fear of exposure to COVID-19
- Remote learning; school immunization requirements in place during pandemic, but exclusions not enforced for remote-only students
- Increase in vaccine hesitancy due to COVID-19 vaccine hesitancy?



#### Reasons for the Decline: Data Artifact?





## Reasons for the Decline: Data Artifact? Out-Migration From NYC

- In November 2021, the NYC Comptroller's Office released an analysis on the pandemic's impact on monthly migration patterns in NYC
- Based on data published by the United States Postal Service (USPS)
- → change of address forms
  - Compared monthly number of change of address request forms filed in NYC compared to pre-pandemic period

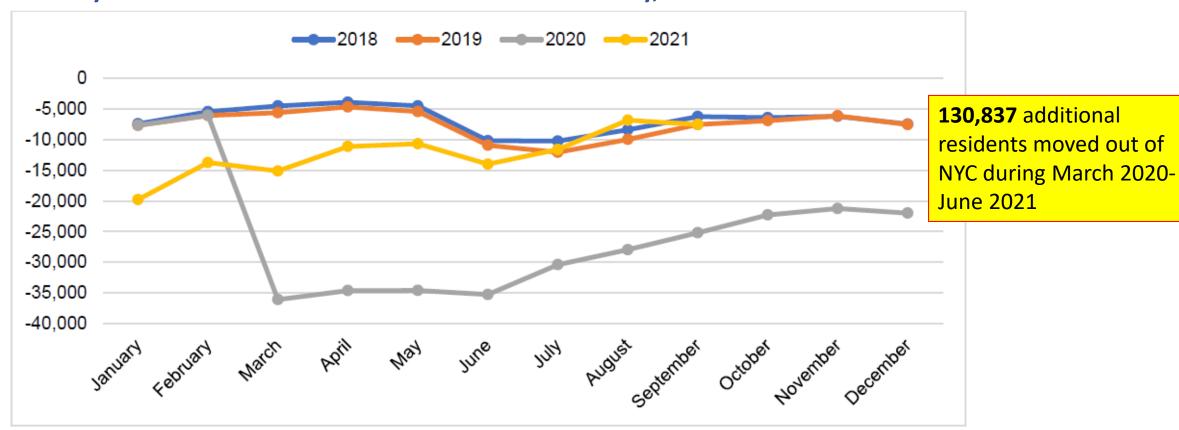


Summary	1
The Pandemic Migration	3
Data and Methodology	4
A Temporary Exodus?	5
Escape from (Parts of) New York	6
The Role of Wealth and Density	9
Where Did People Go?	13
A Return to the City	15
The Road Ahead	16



# Reasons for the Decline: Data Artifact? Out-Migration From NYC

#### Monthly Net Residential Moves to and from New York City, 2018-2021

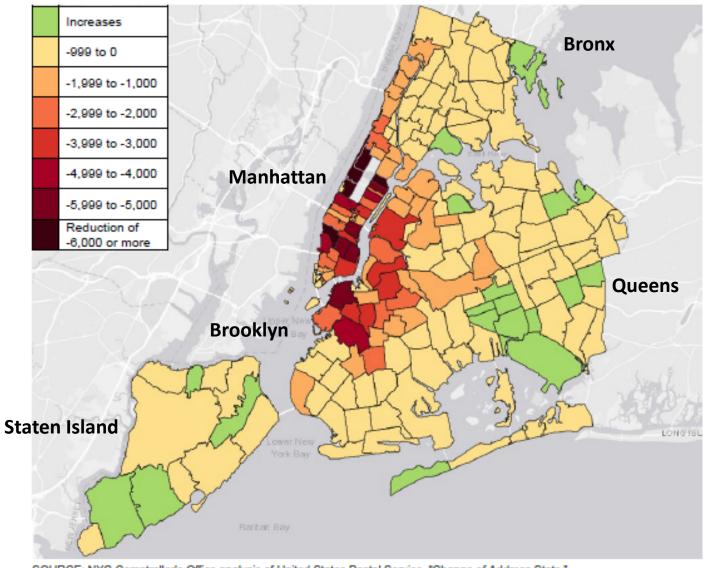


SOURCE: NYC Comptroller's Office analysis of United States Postal Service, "Change of Address Stats," <a href="https://about.usps.com/who/legal/foia/library.htm">https://about.usps.com/who/legal/foia/library.htm</a>.

Note: Includes temporary and permanent moves.



#### Change in Net Residential Moves from Pre-Pandemic Trend in 2020 by ZIP Code (Change in Net Residential Moves in 2020, as Compared to 2019)



SOURCE: NYC Comptroller's Office analysis of United States Postal Service, "Change of Address Stats," https://about.usps.com/who/legal/foia/library.htm.

Note: Includes temporary and permanent moves. Data is not adjusted for population.



#### Conclusion

- Routine vaccination rates among younger children in NYC have been severely impacted by the COVID-19 pandemic, while rates for adolescents are relatively unchanged
- Many pandemic-related factors contributed to the decline
- Decrease may also be attributed to a data artifact caused by outmigration from NYC during the pandemic and the declining birth cohort
- Catching up children on routine vaccinations is critically important to prevent future outbreaks of VPDs



#### Next Steps

- Updating vaccine coverage estimates once the 2020 U.S. Census estimates are released
- Preparing for COVID-19 vaccine availability for children aged <5 years,</li>
   with an emphasis on engaging pediatricians
  - Recommending co-administration of COVID vaccines and routine vaccinations
- Preparing for 'back-to-school' rush later this summer
  - Working closely with schools and daycares to increase compliance with school immunization requirements
- Media and promotion to catch up children on routine vaccinations missed during the pandemic

#### Thank you!

- Contact info:
  - mlangdonembry@health.nyc.gov
  - (347)-396-2596
- Acknowledgments
  - NYC Department Of Health and Mental Hygiene
    - Bureau of Immunization, Citywide Immunization Registry



### Co-administration of Flu and COVID-19 Vaccines to Enhance Immunizations

April 27, 2022

AIRA 2022 National Meeting

Sukhesh Sudan, MPH, Ryan Malosh, PhD

Division of Immunization



### BACKGROUND

### Additional COVID-19 recommendations - An opportunity to administer flu vaccines at the same visit

#### Flu vaccine

- > Recommended for everyone aged > 6 months every season
- > Some children aged 6 months through 8 years are recommended two doses

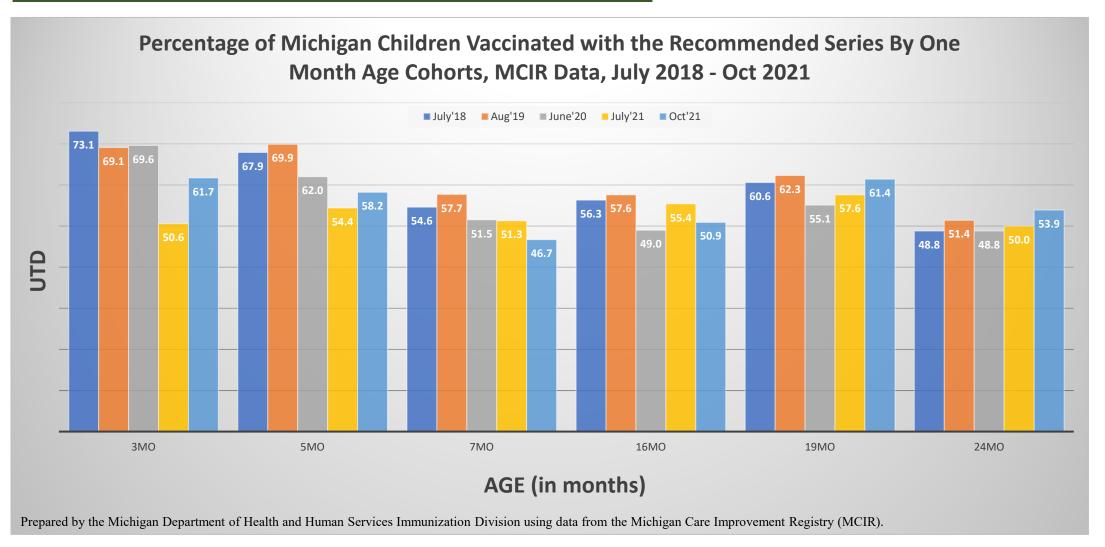
#### **COVID-19 Vaccination Schedule\***



Vaccine	0 mont	h	1 month	2 month	3 month	4 month	5 month	6 month	7 month	8 month	9 month	10 month	11 month
Pfizer-BioNTech (ages 5-11 years)	1 <sup>st</sup> Dose	(3 w	Dose reeks after dose)										
Pfizer-BioNTech (ages 12 years and older)	1 <sup>st</sup> Dose		<b>Dose¹</b> 3 weeks after 1st dose	)				oster Dose <sup>2</sup> least 5 months after 2	<sup>nd</sup> dose)			Booster Dose <sup>3</sup> e footnote)	
Moderna (ages 18 years and older)	1st Dose		2 <sup>nd</sup> Dose <sup>1</sup> (4–8 weeks after 1 <sup>st</sup>	dose)				Booster Dose <sup>2</sup> (at least 5 months a	after 2 <sup>nd</sup> dose)			2 <sup>nd</sup> Booster Dose (See footnote)	
Janssen (ages 18 years and older)	1st Dose			Booster Dose <sup>2</sup> (at least 2 months after 1 <sup>st</sup> dose)				2 <sup>nd</sup> Booster Dose (See footnote)	e <sup>3</sup>				

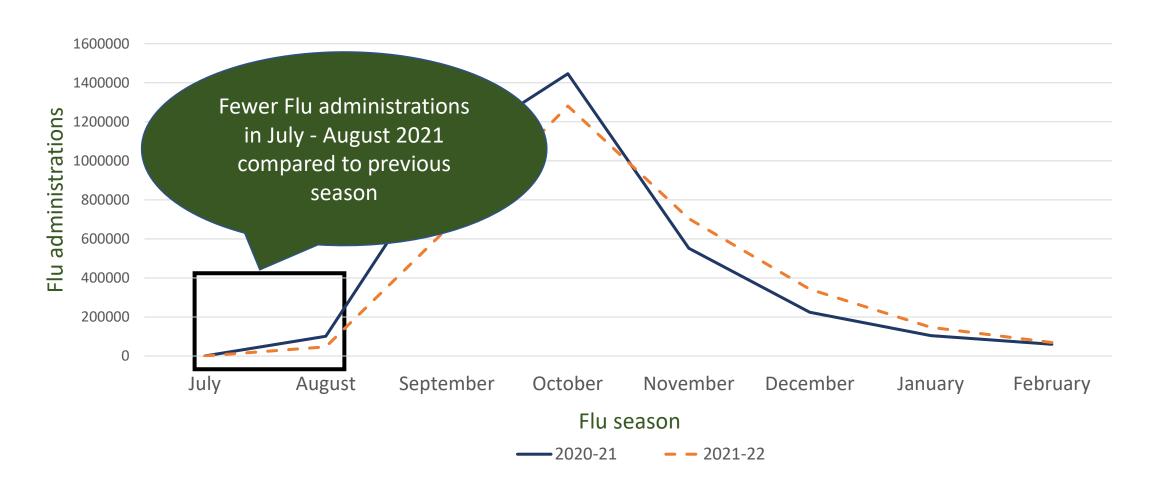
Note: Timeline is approximate. Intervals of 3 months or fewer are converted into weeks per the formula "1 month = 4 weeks." Intervals of 4 months or more are converted into calendar months.

# COVID-19 Pandemic followed by decrease in routine immunizations



#### Why co-administer flu and COVID-19 vaccines?

Influenza - Flu Vaccination Dashboard (michigan.gov)



#### Can we co-administer flu and COVID-19 vaccines?

THE LANCET
Respiratory Medicine

Safety, immunogenicity, and efficacy of a COVID-19 vaccine (NVX-CoV2373) co-administered with seasonal influenza vaccines: an exploratory substudy of a randomised, observer-blinded, placebocontrolled, phase 3 trial

Seth Toback, MD • Eva Galiza, MBBS • Catherine Cosgrove, PhD • James Galloway, PhD • Anna L Goodman, DPhil • Pauline A Swift, PhD • et al. Show all authors • Show footnotes

Published: November 17, 2021 • DOI: https://doi.org/10.1016/S2213-2600(21)00409-4 • Check for updates

A study established the safety and efficacy of Flu and COVID-19 vaccines when co-administered!

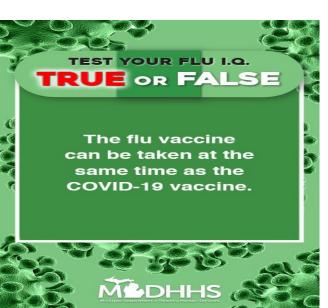
CDC recommends coadministration of Flu and COVID-19 vaccines – Aug 27, 2021!



#### MDHHS encourages providers to co-administer!

- Following CDC guidance, MDHHS communicated to all Michigan providers to co-administer Flu and COVID-19 vaccines when feasible
- Pharmacies (the top provider of COVID-19 vaccines in MI) were especially encouraged!
- Information regarding co-administrations disseminated via:
  - Weekly provider briefs
  - ➤ Noontime knowledge presentations
  - ➤ Yearly flu webinar 1<sup>st</sup> Sept 2021
  - > Responding to questions





COVID-19 is here, and so is the flu.

# Vaccinate Together



Learn more at Michigan.gov/COVIDVaccine

Vaccination is your best protection against the flu and COVID-19.

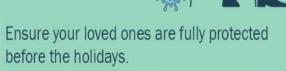


With COVID-19 still spreading, it is more important than ever to protect yourself from vaccine-preventable diseases like the flu and COVID-19.

You can get a COVID-19 vaccine and a flu vaccine at the same time.



Vaccinating at the same visit for flu and COVID-19 protects loved ones from both deadly diseases.



Flu and COVID-19 are both especially dangerous for older people.

Vaccination helps prevent infection, severe disease, hospitalization, and death from both the flu and COVID-19.

### METHODS

#### Data source

 Michigan's Immunization Information System (IIS) – Michigan Care Improvement Registry (MCIR)

- MCIR was established in 1998
  - Mandatory childhood vaccine reporting (birth through 18 years)
  - ➤ Became a lifespan registry in 2006 with addition of adult records
- Immunization records in MCIR escalated following the COVID-19 pandemic
  - > 8.3 million doses in 2020 to 21.6 million in 2021
  - > Dramatic increase in adult records

mcir.org | Improving Healthcare in Michigan

#### Data analysis

- "Co-administrations" included Michigan residents who received a fluand COVID-19 vaccine:
  - On the same day
  - > +/- 1 day from each other
- % of total flu vaccines that were co-administered with a COVID-19 vaccine (Sep 1, 2021, to Feb 12, 2022) were assessed
  - > Trends over time during the 2021-22 flu season
- Co-administrations stratified by age, gender, and type of provider
- County level co-administrations were mapped using GIS software

### RESULTS

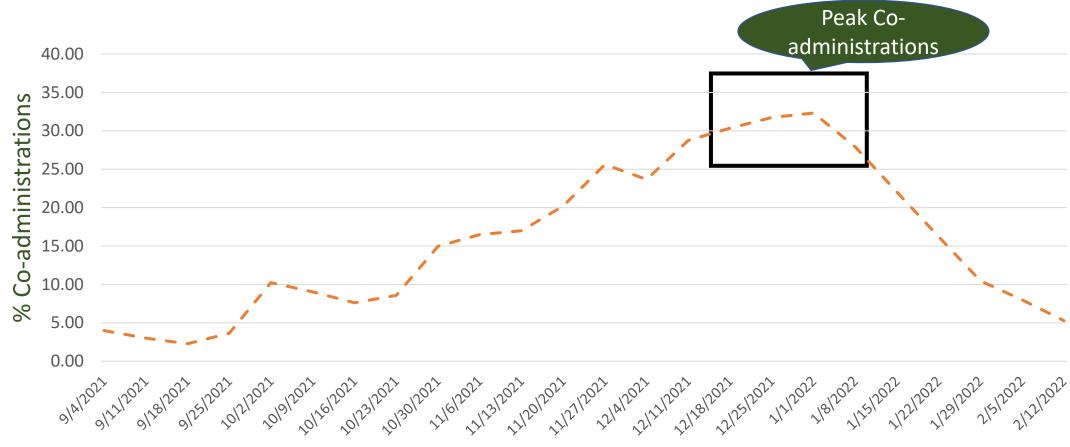
#### Key results

• 13.4% (413,101) co-administrations out of a total of 3,075,658 flu vaccinations in Michigan

• Weekly co-administration rates peaked in December 2021 (32.3%) followed by a sharp decline in February 2022 (5.3%).

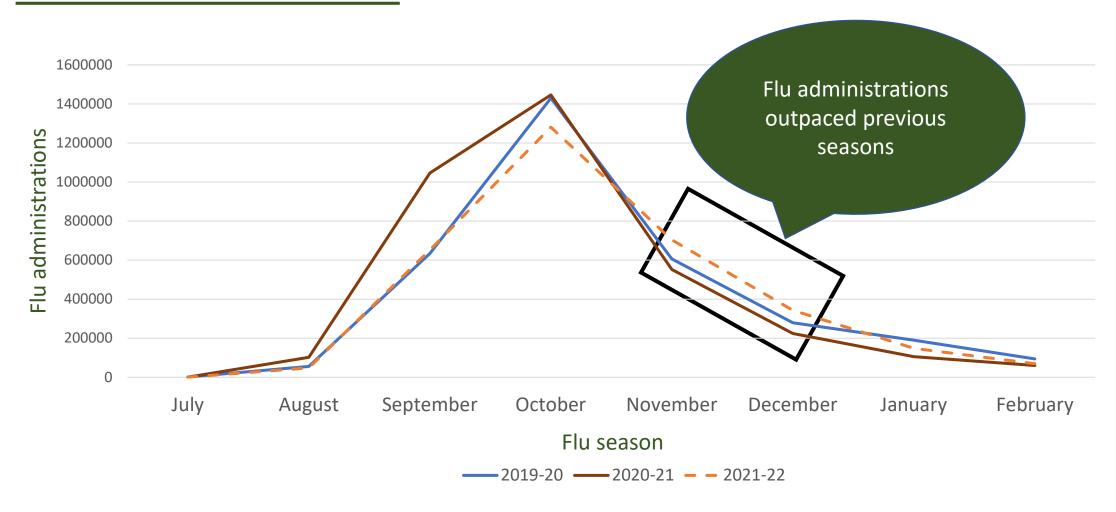
 During peak co-administrations (Nov 2021 - Jan 2022), the flu vaccine administration outpaced vaccinations at the same time in the previous two years

### % of flu vaccines that were co-administered with a COVID-19 vaccine?



Weekends starting September

## Higher flu administrations during peak co-administrations!



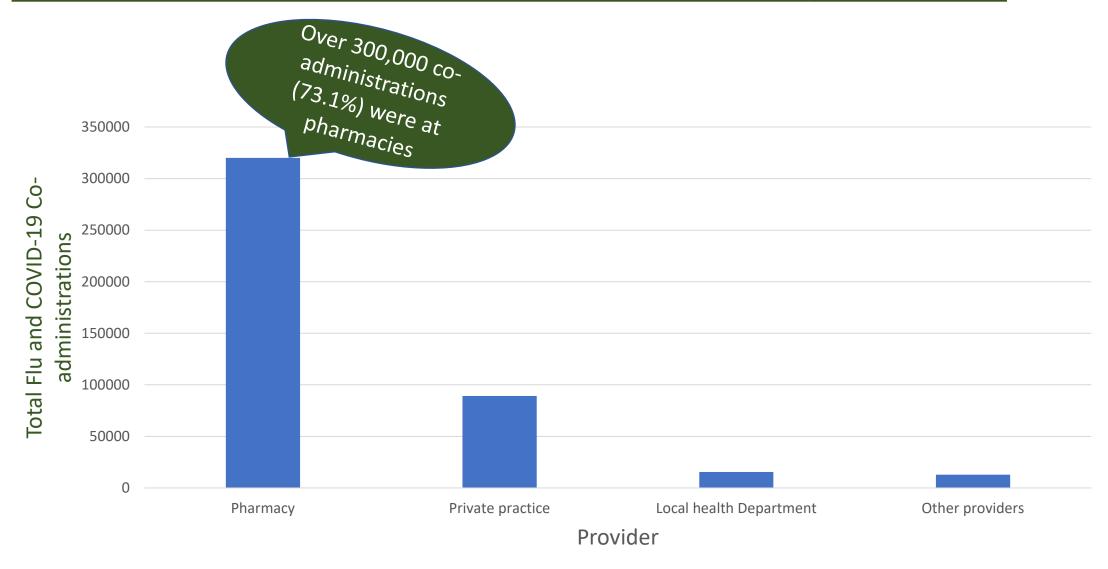
Influenza - Flu Vaccination Dashboard (michigan.gov)

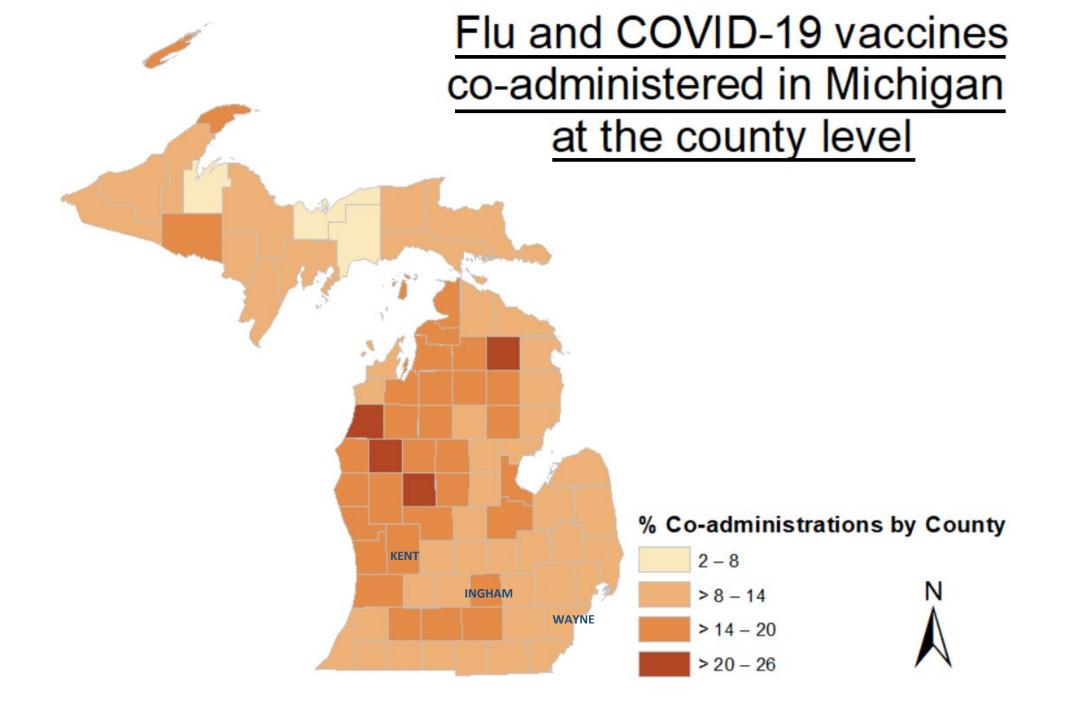
#### Co-administrations by sex and age group

Sex	Flu-COVID Co-administrations (%)
Male	210,044 (48.0%)
Female	227,417 (52.0%)

Age group	Flu-COVID Co-administrations (%)
5 – 11 years	283 (0.1%)
12 – 17 years	11,144 (2.5%)
18 – 49 years	161,949 (37.0%)
50 – 64 years	114,210 (26.1%)
65 years and above	150,025 (34.3%)

#### Co-administrations by Healthcare provider





### CONCLUSION

#### Conclusions

- State health departments should utilize their Immunization Registries to actively monitor <u>trends in co-administration</u> of vaccines which can guide <u>data-driven</u> <u>policies</u> to enhance vaccination coverages
- <u>Educational outreach</u> to pharmacies, other health care providers, and the general public to co-administer flu and COVID vaccines can be an effective strategy to enhance immunizations.
- In an environment with <u>rapid changes</u> in vaccine recommendations (including additional doses of COVID-19 vaccine), co-administration of other vaccines with Flu vaccine presents a <u>unique opportunity</u> to improve vaccination coverage.

#### Next steps...

- Differences in Co-administrations by
  - > Race / ethnicity
  - > COVID-19 dose type (Primary series vs. booster dose)
  - > Rural vs. urban counties

 Co-administration of other ACIP recommended vaccines with Flu / COVID-19 vaccines?

#### Project Team



#### **Division of Immunization**

- Sukhesh Sudan, MCIR Epidemiologist
- Hannah Forsythe, MCIR Epidemiologist
- Abhinav Nalla, Data Sharing Analyst
- Terri Adams, Director
- Ryan Malosh, Epidemiology Section Manager

#### Presenter Contact Information

Sukhesh Sudan

**Epidemiologist** 

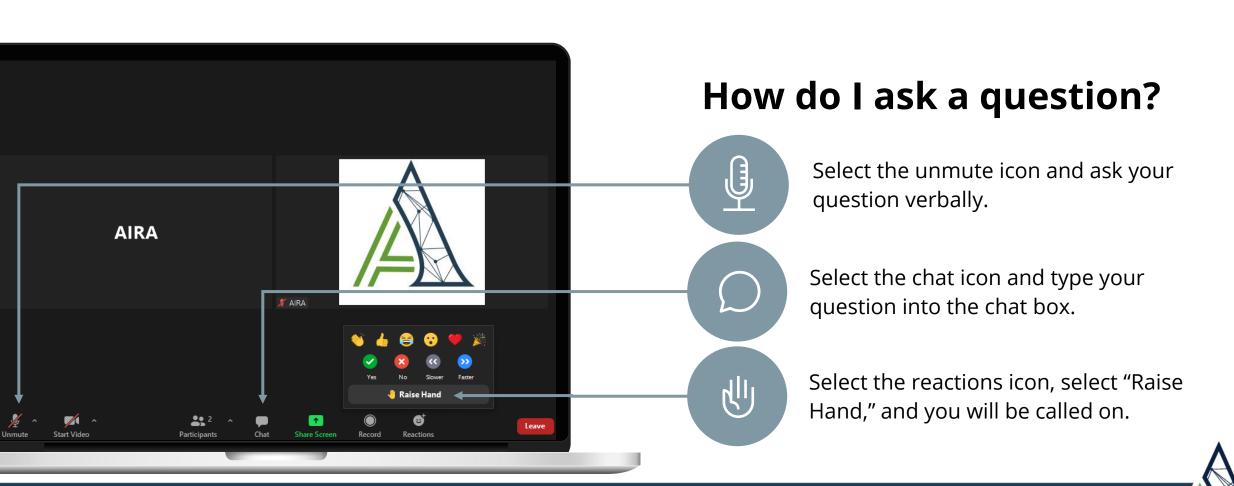
SudanS@michigan.gov

Ryan Malosh

**Epidemiology Section Manager** 

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#### Question & Answer



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

Please complete a brief evaluation survey.

The next Discovery Session will be on June 27, 2022