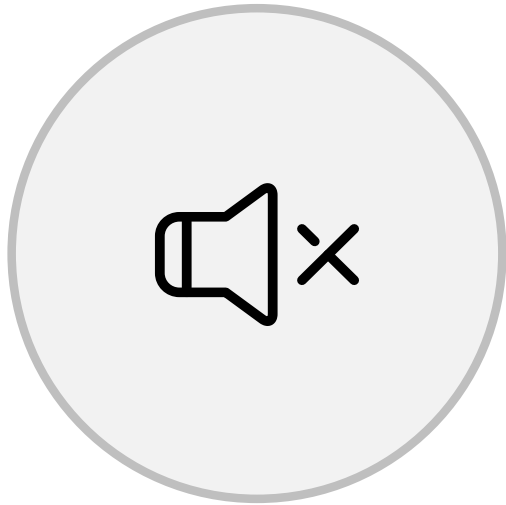


# COVID vaccine, expanded flu season and catchup of routine immunizations: How data analytics can help IIS prepare for the challenges ahead

Discovery Session  
July 27, 2020  
4pm EST

# AIRA Discovery Session



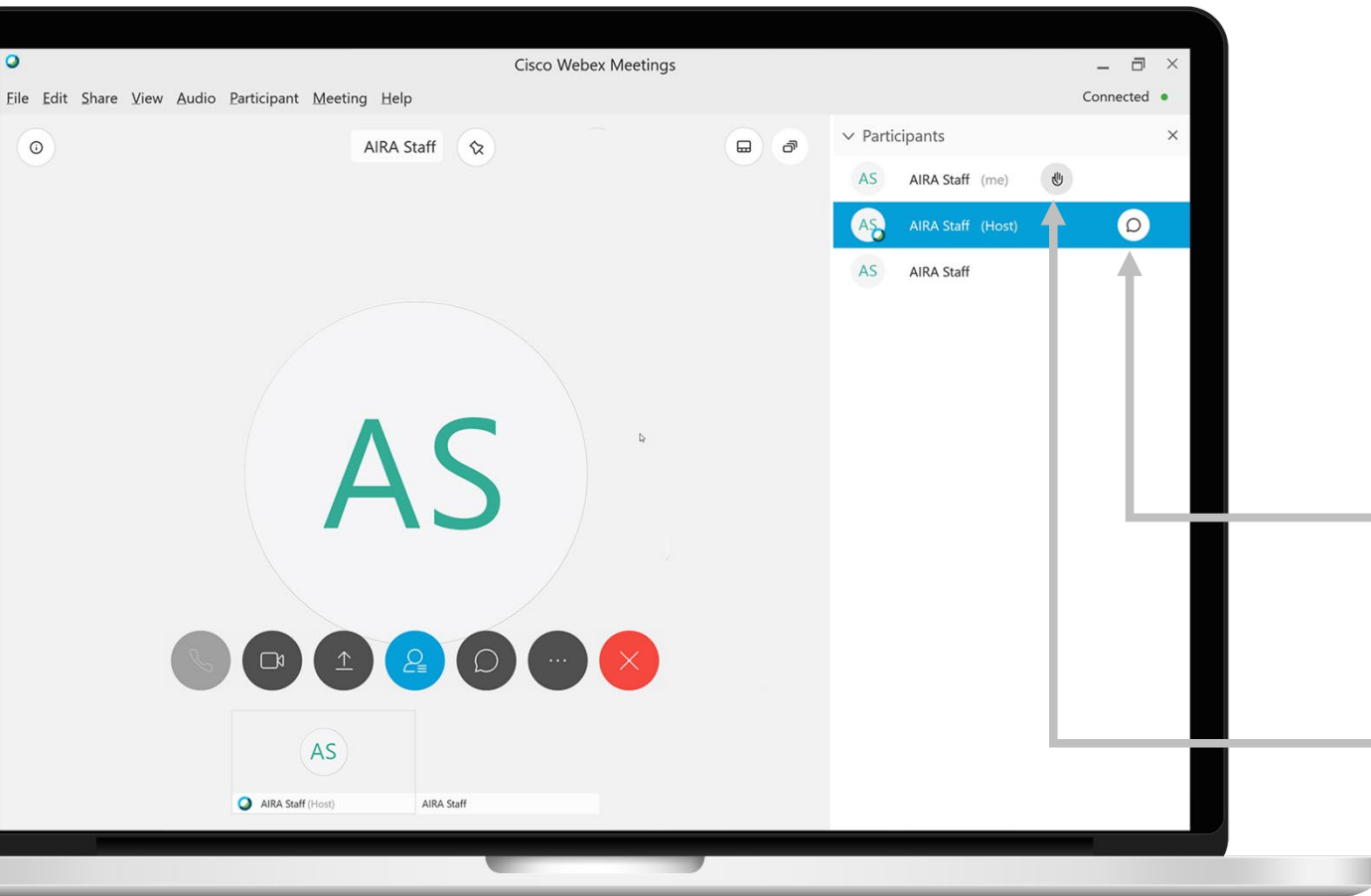
All phone lines  
are muted



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

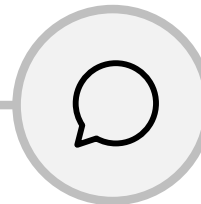


# AIRA Discovery Session

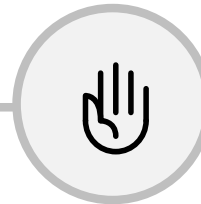


- **How do I ask a question?**

- There will be time allotted for Q&A following each of the updates, 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 Topics

- How IIS data is being used for data analytics
  - Wisconsin
  - Minnesota



Press \*6 to unmute your line



# Today's Speakers

- Danielle Sill, Wisconsin
- Mayuri Kulkarni, Wisconsin
- Sydney Kuramoto, Minnesota



Press \*6 to unmute your line





WISCONSIN DEPARTMENT  
*of* HEALTH SERVICES

# COVID-19 and Vaccine Reporting

Creating canned reports and publications

Danielle Sill, WIR Epidemiologist  
Mayuri Kulkarni, WIR Research Analyst  
AIRA Discovery Session  
July 27, 2020

# Learning Objectives

- Products used for data pulls
- Microsoft Publisher Reports
- Creating Reports Using SAS
- Impact of COVID-19 on Vaccination

The background of the slide is a blurred collage of various programming code snippets in different colors (blue, green, red, yellow) on a dark background. Some legible snippets include 'function use\_array(a, b) {', 'for (var c', 'dynamicSort(a) {', 'length + 1;', 'return a.length', and 'else {'.

# TOAD, SAS, Business Objects

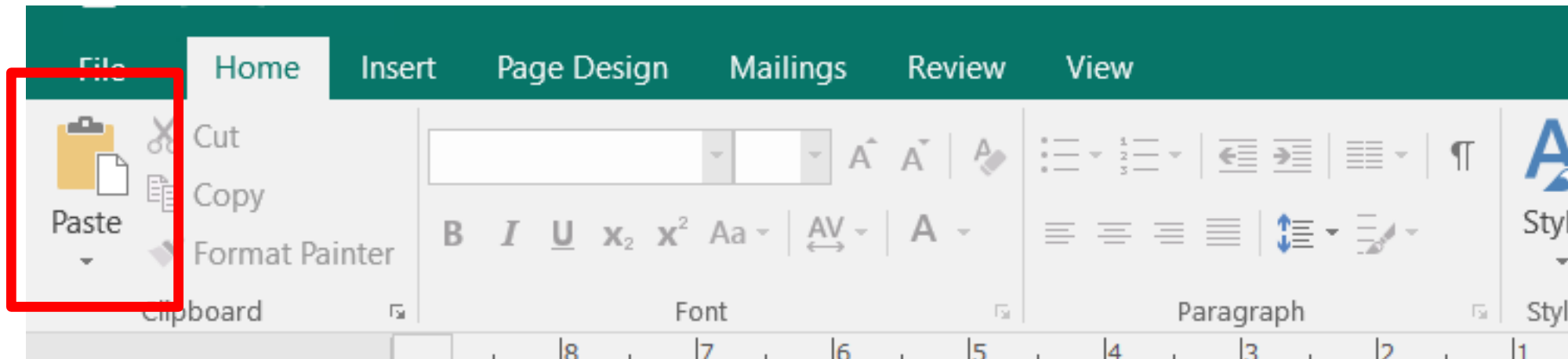
A stack of papers with various charts and graphs. On top of the stack is a white calculator, a pair of black-rimmed glasses, and a silver pen. The papers feature a donut chart with blue, yellow, and orange segments, a bar chart with blue bars, and a line graph with multiple colored lines. The text "Microsoft Publisher Reports" is overlaid in a large, bold, dark grey font across the middle of the image.

# Microsoft Publisher Reports

# Creating Microsoft Publisher Reports

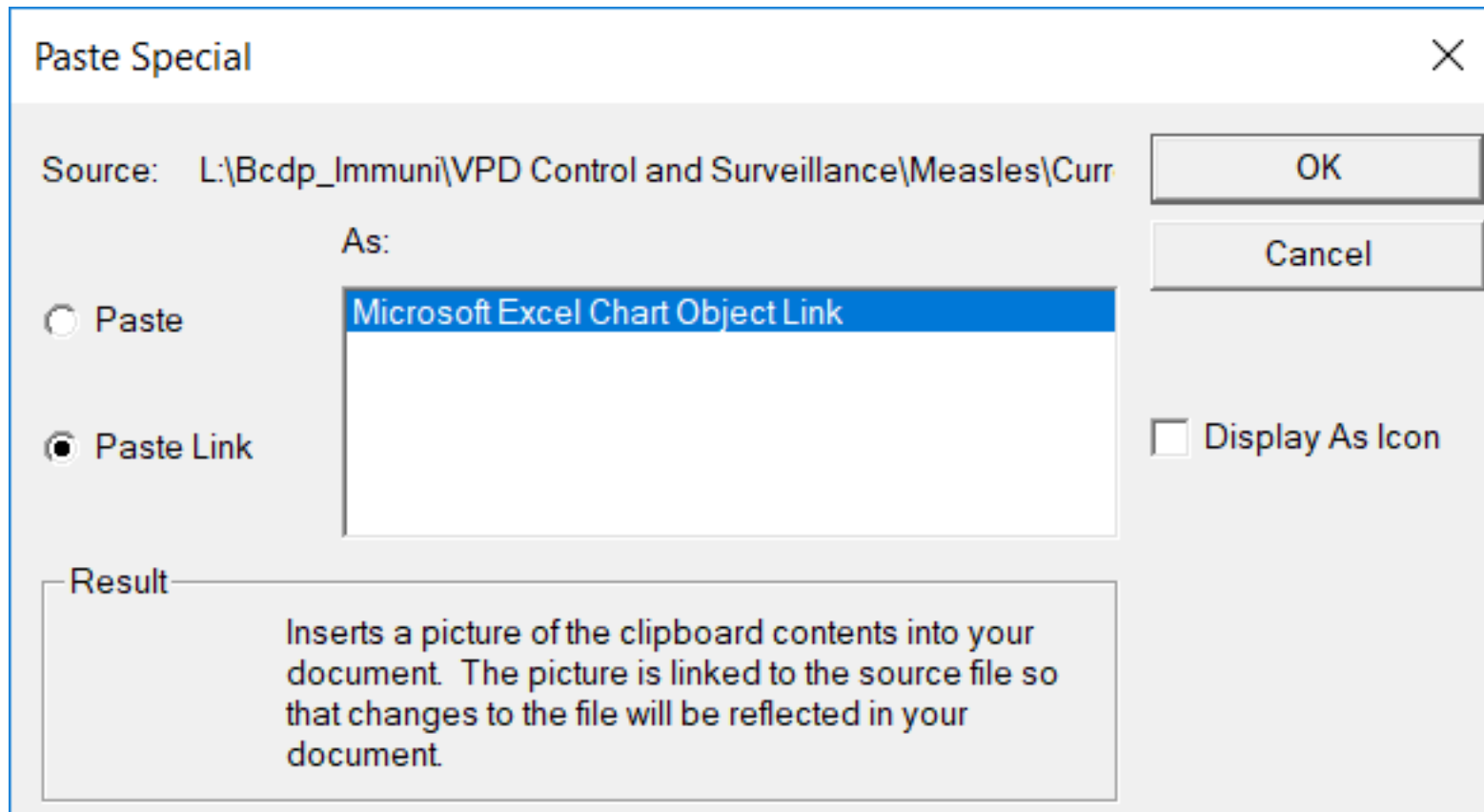


# Linking files into a publisher report



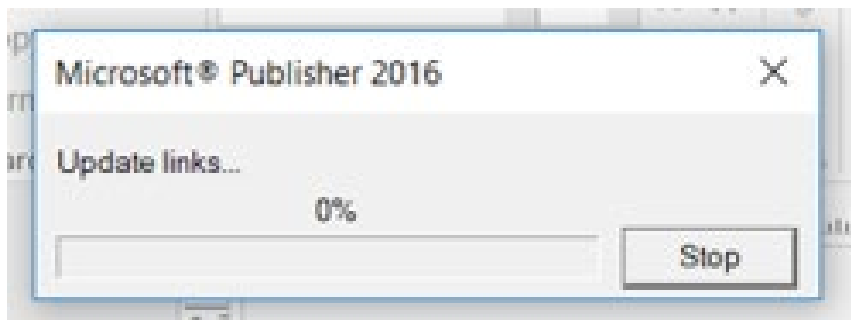
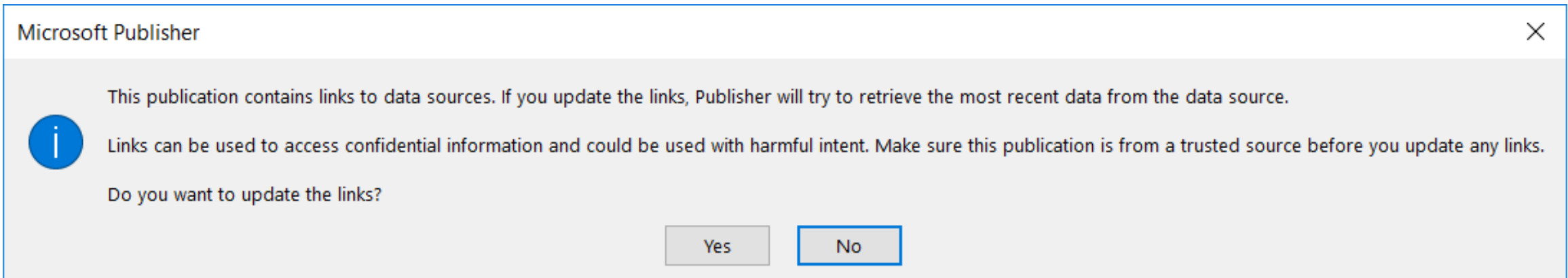
Copy the graph or table you want to include in the report from the excel document. Click “paste” and then “paste special”.

# Linking files into a publisher report



Once you click on “paste special” this window will pop-up. Click on the “paste link” radio button and choose ***Microsoft Excel Chart Object Link***.

# Linking files into a publisher report



Whoever is in charge of pulling the report and disseminating it each week will go into publisher, and the pop-up at the top will appear if tables and graphs are linked. Click “yes” to update. Then, the updated links window will show you the progress in updating the links within the publisher document.

# Weekly Respiratory Report

Division of Public Health

Respiratory Virus Surveillance Report

Week 14: Ending April 4, 2020



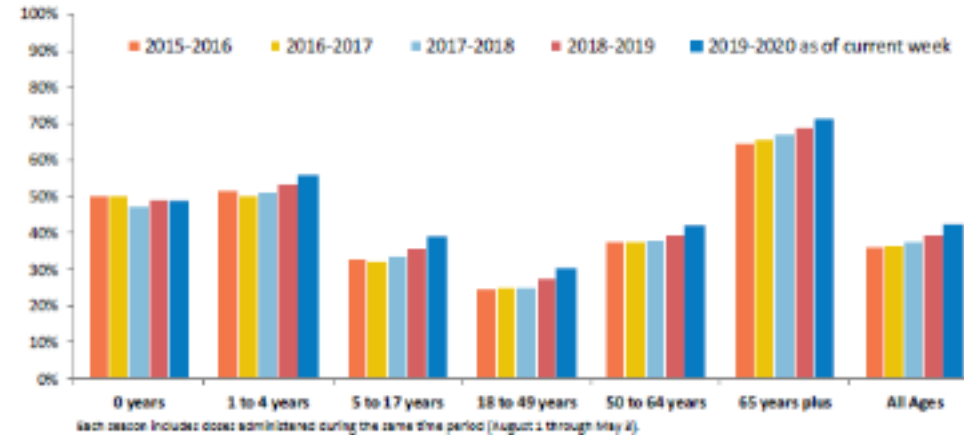
**RESPIRATORY VIRUS SURVEILLANCE REPORT**  
 Week 14, Ending April 4, 2020

Wisconsin Department of Health Services | Division of Public Health  
 Bureau of Communicable Diseases | Communicable Diseases Epidemiology Section  
[www.dhs.wisconsin.gov/dph/bcd.htm](http://www.dhs.wisconsin.gov/dph/bcd.htm) | [dnahbcd@dhs.wi.gov](mailto:dnahbcd@dhs.wi.gov)

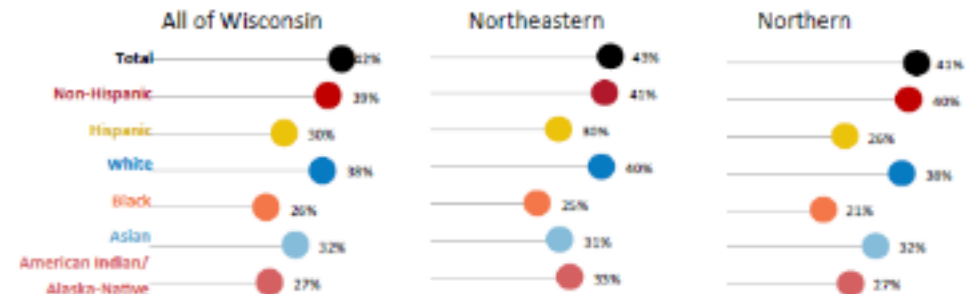
F03346

## SEASONAL INFLUENZA VACCINATION

Percentage of Wisconsin residents who received one or more doses of influenza vaccine, by age group and influenza season



Percentage of Wisconsin residents who received one or more doses of influenza vaccine, by race and ethnicity and region, 2019-2020 influenza season





# Creating Reports using SAS

# Creating Reports Using SAS

**School Immunization Assessment Results, 2014-2018\***

Year	Met Minimum Requirements	In Process	Behind Schedule	No Record	Health Waiver	Religious Waiver	Personal Conviction Waiver	All waivers and no immunizations
2014	85.1%	.	.	.	.	.	.	.
2015	86.2%	.	.	.	.	.	.	.
2016	95.1%	0.9%	0.6%	3.1%	1.1%	2.2%	3.5%	1.2%
2017	93.6%	2.1%	2.1%	2.9%	1.2%	2.1%	4.2%	2.3%
2018	92.5%	3.1%	2.9%	1.9%	1.3%	1.7%	5.5%	3.8%

	Change from 2017-2018	Change from 2017-2018	Change from 2017-2018	Change from 2017-2018	Change from 2017-2018	Change from 2017-2018	Change from 2017-2018	Change from 2017-2018
	-1.1%	1.0%	0.8%	-1.0%	0.1%	-0.4%	1.3%	1.5%

\*Year refers to the start of the school year (Ex. data for 2014 refers to the 2014-2015 school year).

Note: All categories besides met minimum requirements are not available for 2014 and 2015, and change was calculated from most recent year available.

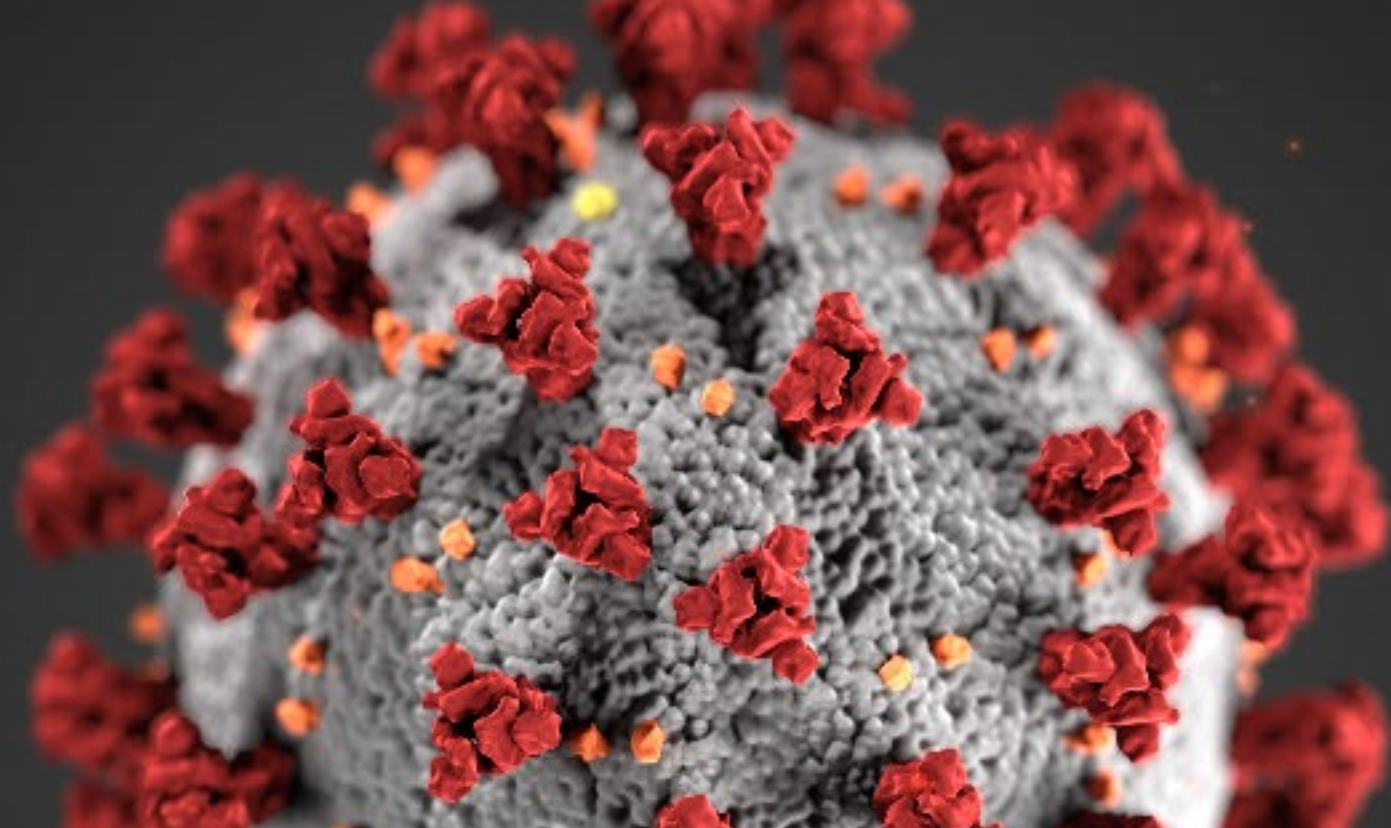
Refer to SharePoint for results for each school within your jurisdiction.

# Creating Reports Using SAS

**Child\* Immunization Rates, 2014-2018**

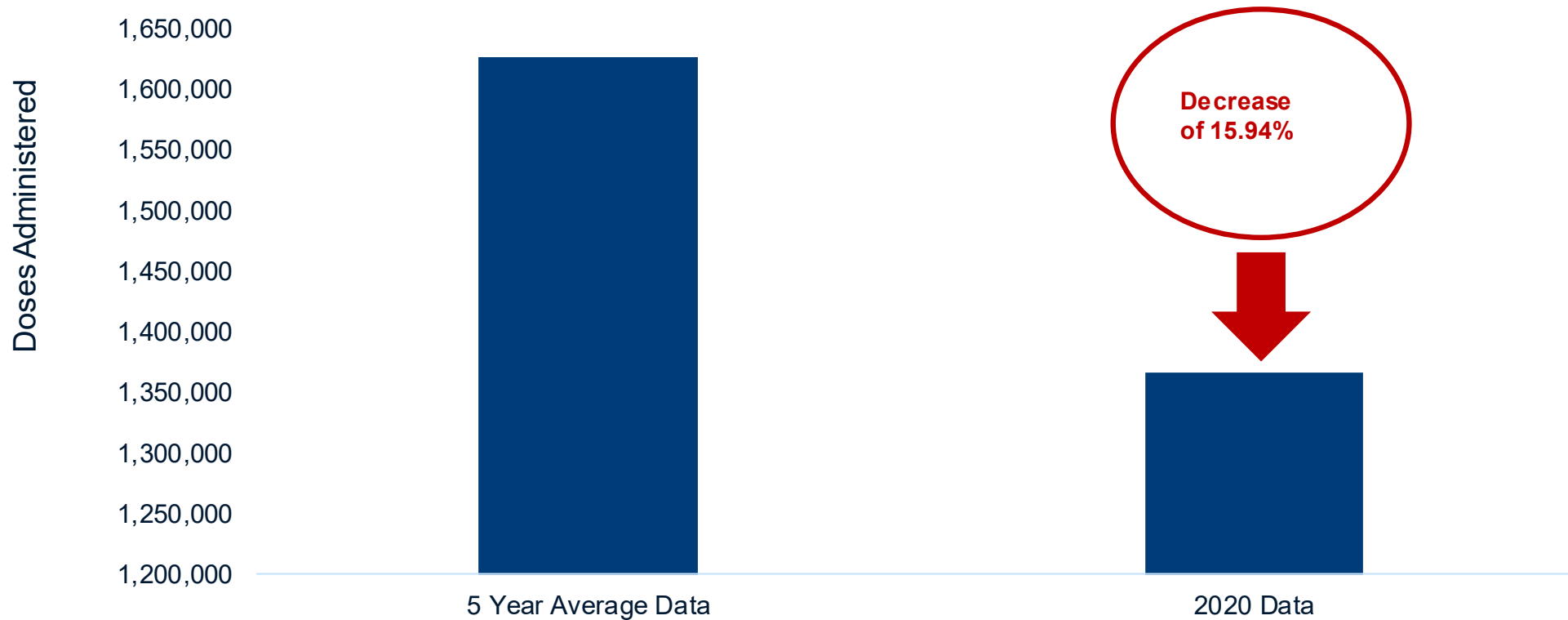
Year	DTaP (4 doses)	Polio (3 doses)	MMR (1 dose)	Hib (3 doses)	HepB (3 doses)	Varicella (1 dose)	PCV (4 doses)	4:3:1:3:3:1:4 series
2014	69.4%	83.3%	82.6%	79.2%	83.3%	79.2%	75.0%	63.9%
2015	63.1%	80.3%	82.2%	81.5%	82.2%	78.3%	71.3%	59.9%
2016	70.4%	81.8%	79.9%	81.8%	81.1%	73.6%	75.5%	63.5%
2017	65.4%	84.3%	81.1%	85.0%	81.7%	78.4%	73.9%	60.8%
2018	69.9%	80.8%	78.8%	84.0%	81.4%	76.3%	76.9%	64.7%

	Change from 2017	Change from 2017	Change from 2017	Change from 2017	Change from 2017	Change from 2017	Change from 2017	Change from 2017
	4.5%	-3.5%	-2.3%	-1.0%	-0.3%	-2.1%	3.0%	3.9%



# Impact of COVID19 on Vaccination

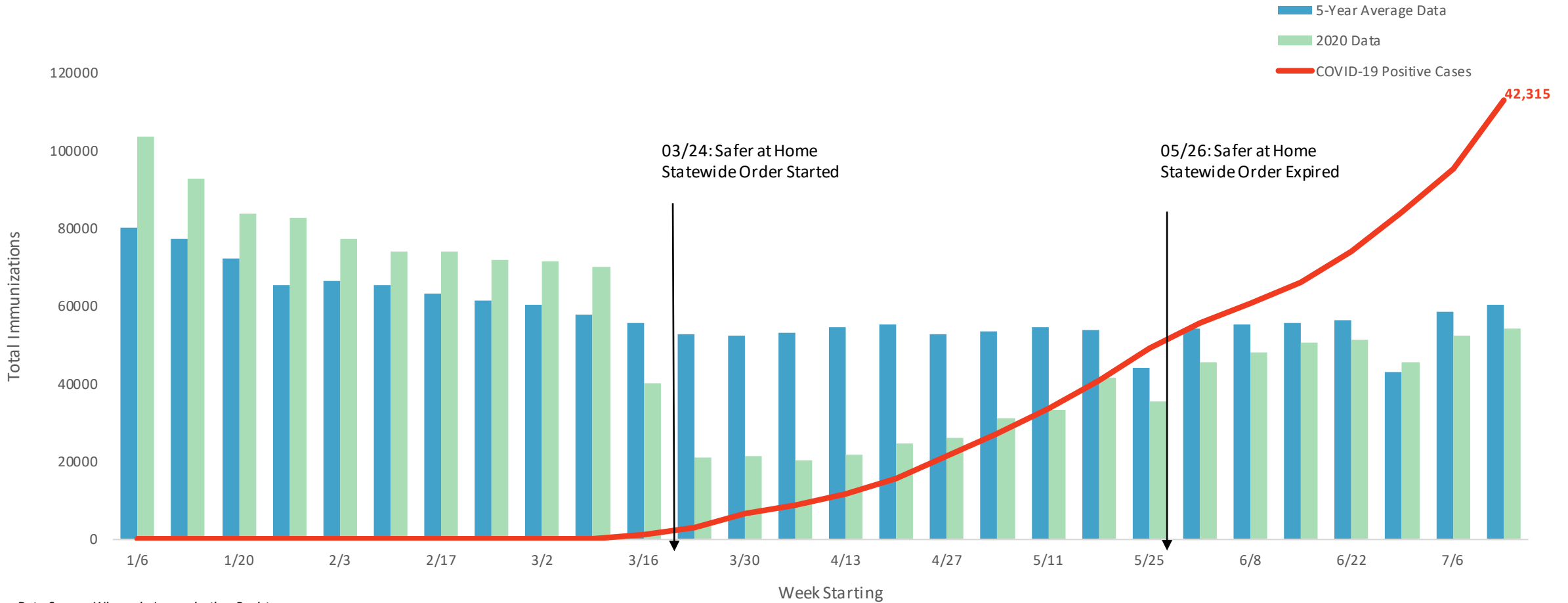
# Total Administered Doses in Wisconsin



\*Doses Administered Data as of end of week 27 (July 5<sup>th</sup>)

Data Source: Wisconsin Immunization Registry

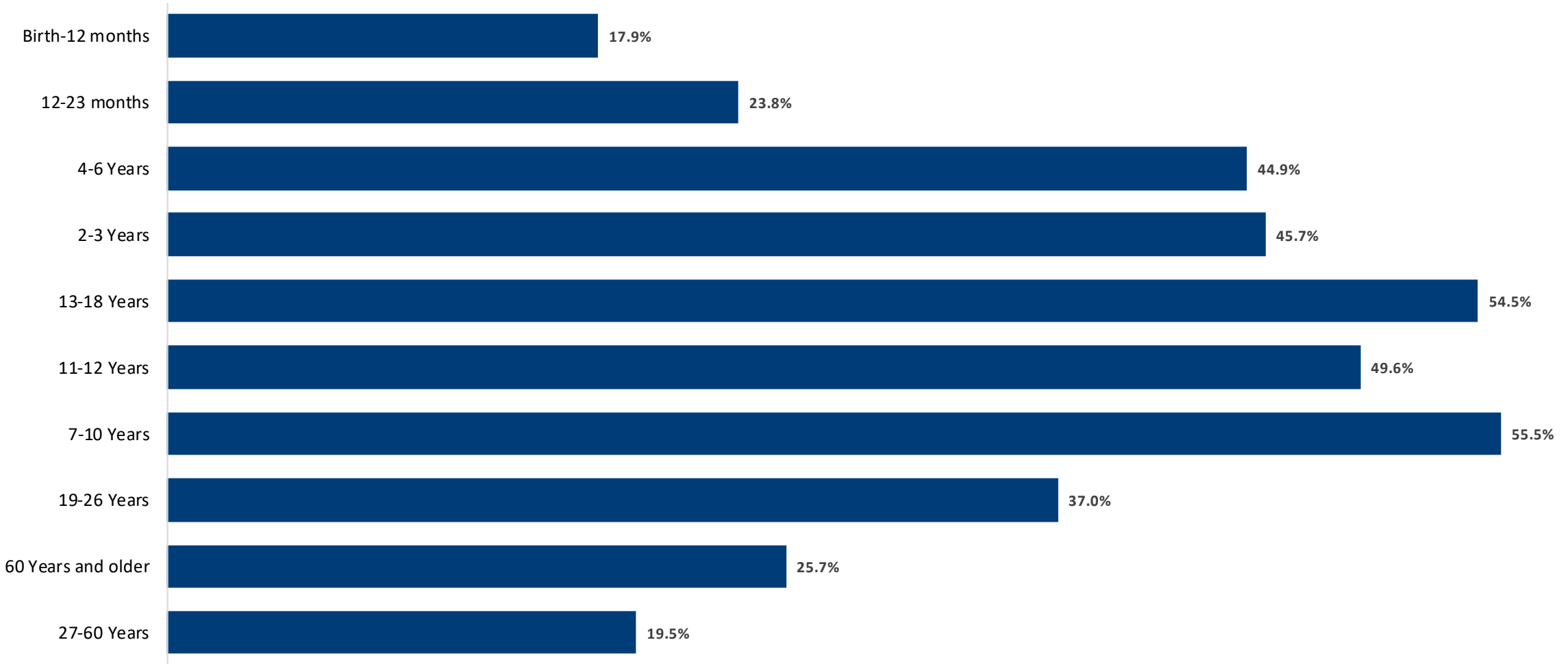
# Number of Immunizations Administered per week in Wisconsin All Ages: 2020 Compared to 5-year Average



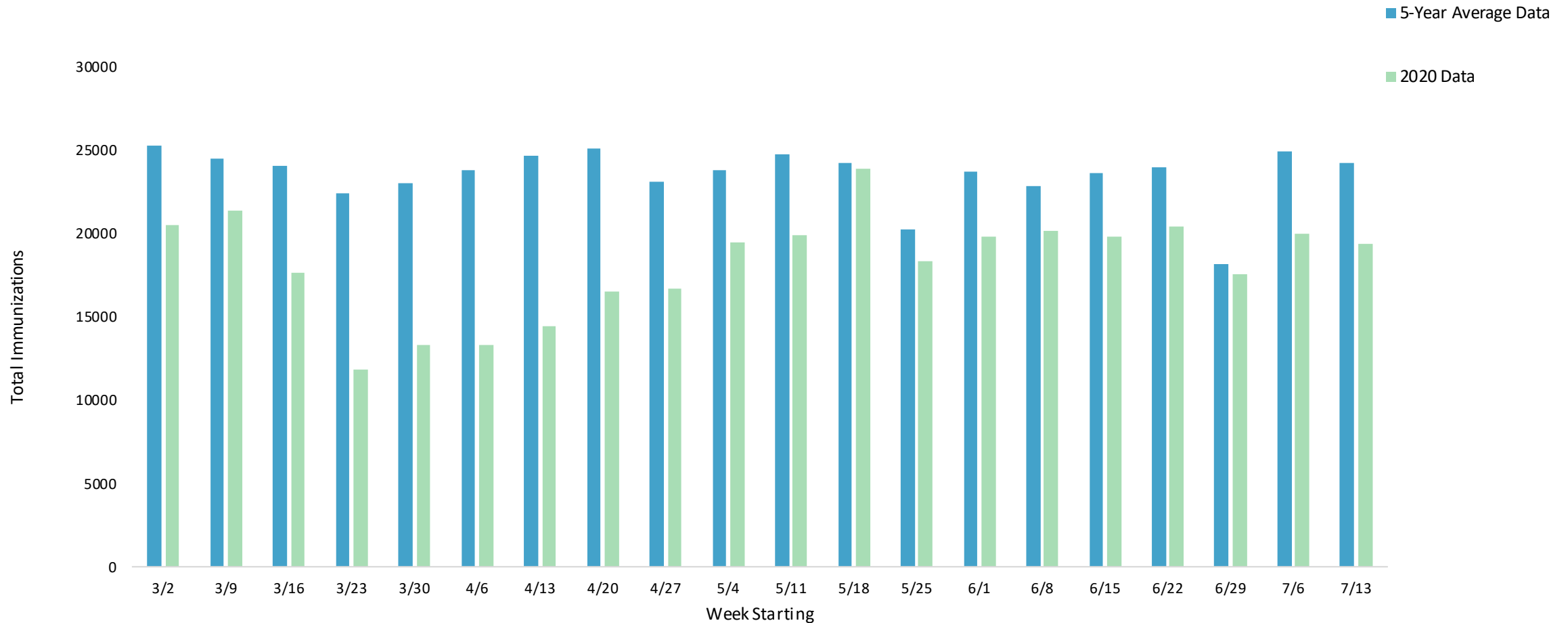
Data Source: Wisconsin Immunization Registry

# Percent Decrease in Immunizations by Age Group

(March–June Data: 2020 vs. 5-Year Average)

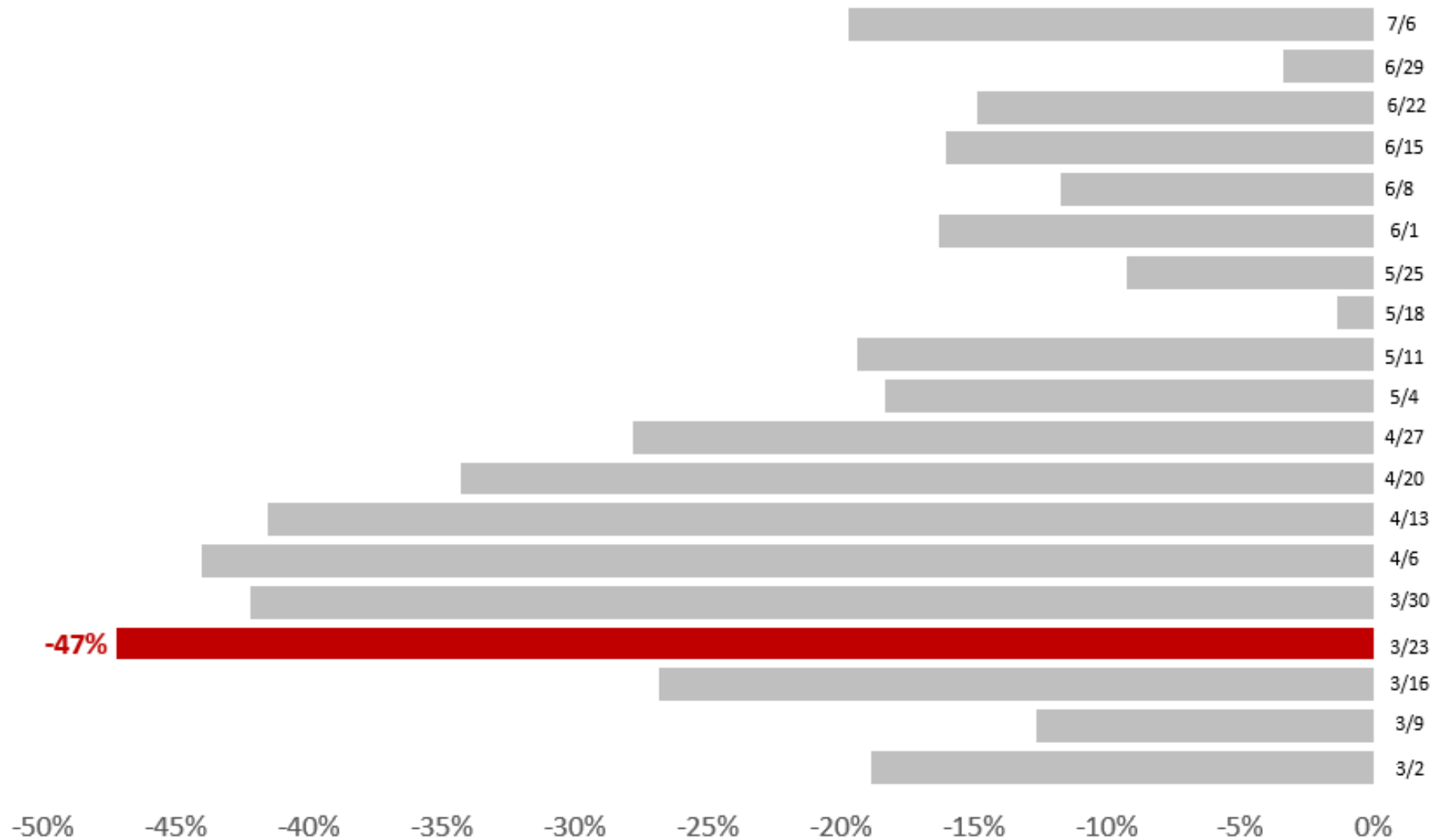


# Number of Child Immunizations Administered per week in Wisconsin Birth–3 Years Old: 2020 Compared to 5-year Average

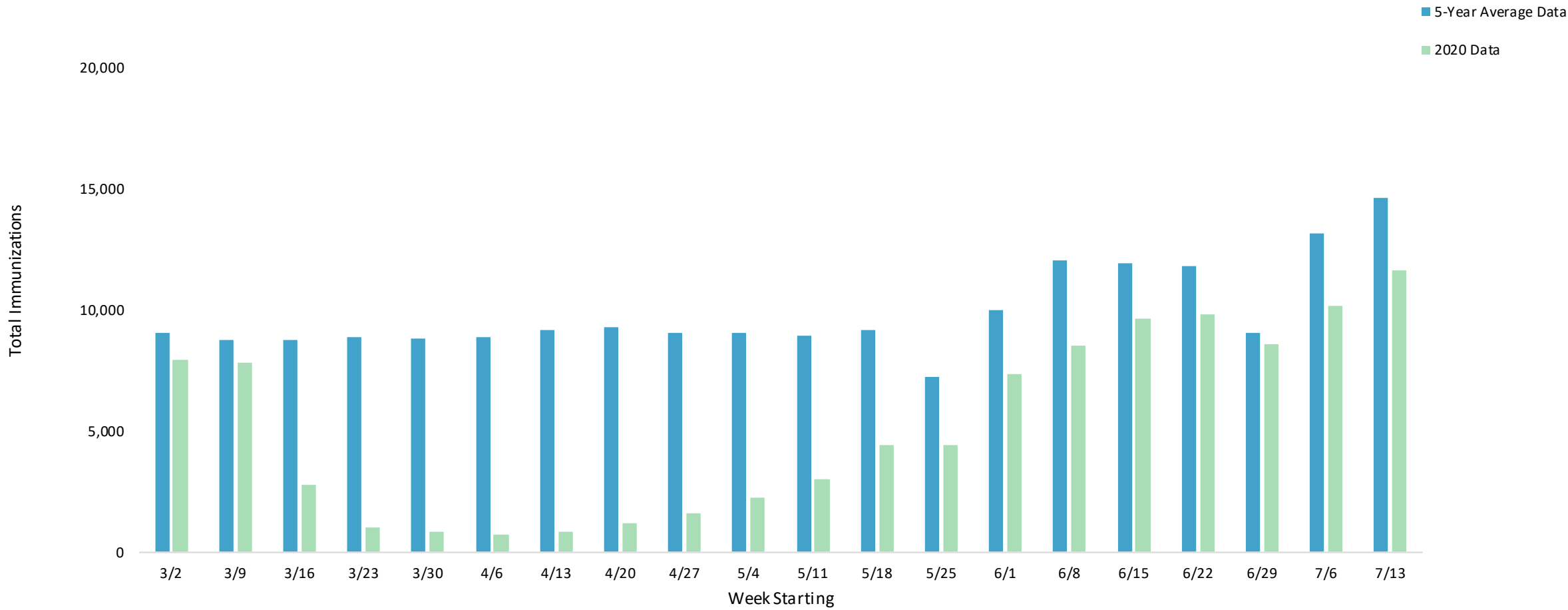


Data Source: Wisconsin Immunization Registry

Administered vaccinations in children from Birth–3 years old in Wisconsin saw the **sharpest decline** (-46%) the week of 3/23.

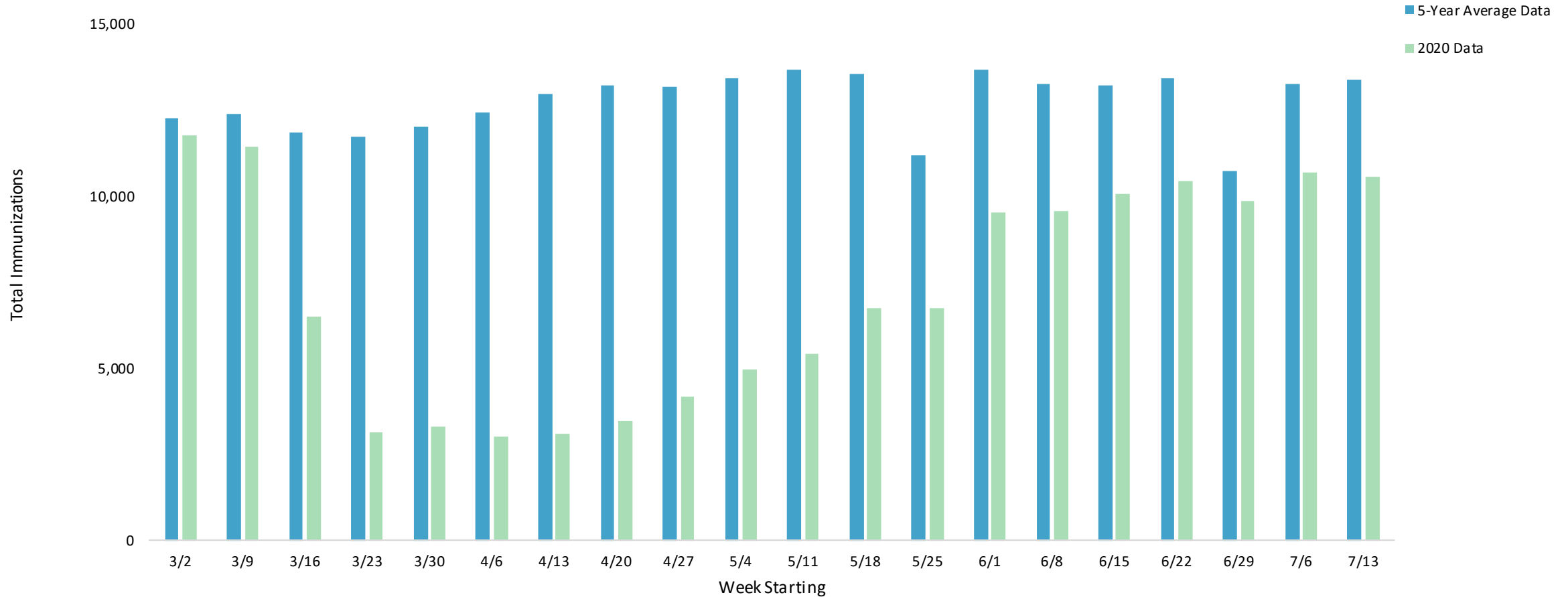


# Number of Immunizations Administered per week in Wisconsin 4–18 Years Old: 2020 Compared to 5-year Average



Data Source: Wisconsin Immunization Registry

# Number of Adult Immunizations Administered per week in Wisconsin 19 Years and Older: 2020 Compared to 5-year Average



Data Source: Wisconsin Immunization Registry





# MIIC Data & Data Analytics

Sydney Kuramoto | MIIC Informatician

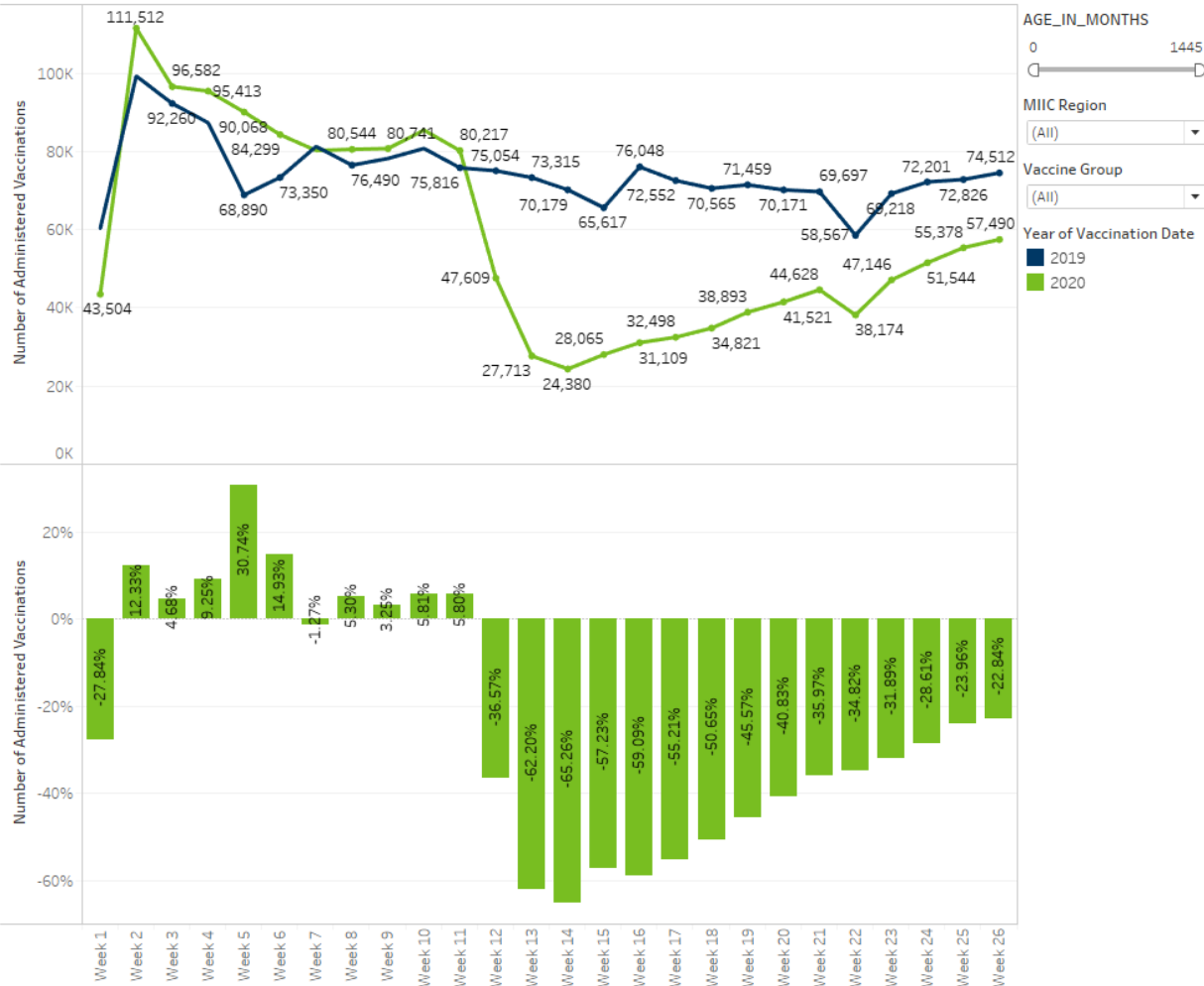
July 27, 2020

PROTECTING, MAINTAINING AND IMPROVING THE HEALTH OF ALL MINNESOTANS

- Tableau
- SAS/Excel
- Data in Action
- COVID-19

# Tableau

# Catch-Up Vaccination

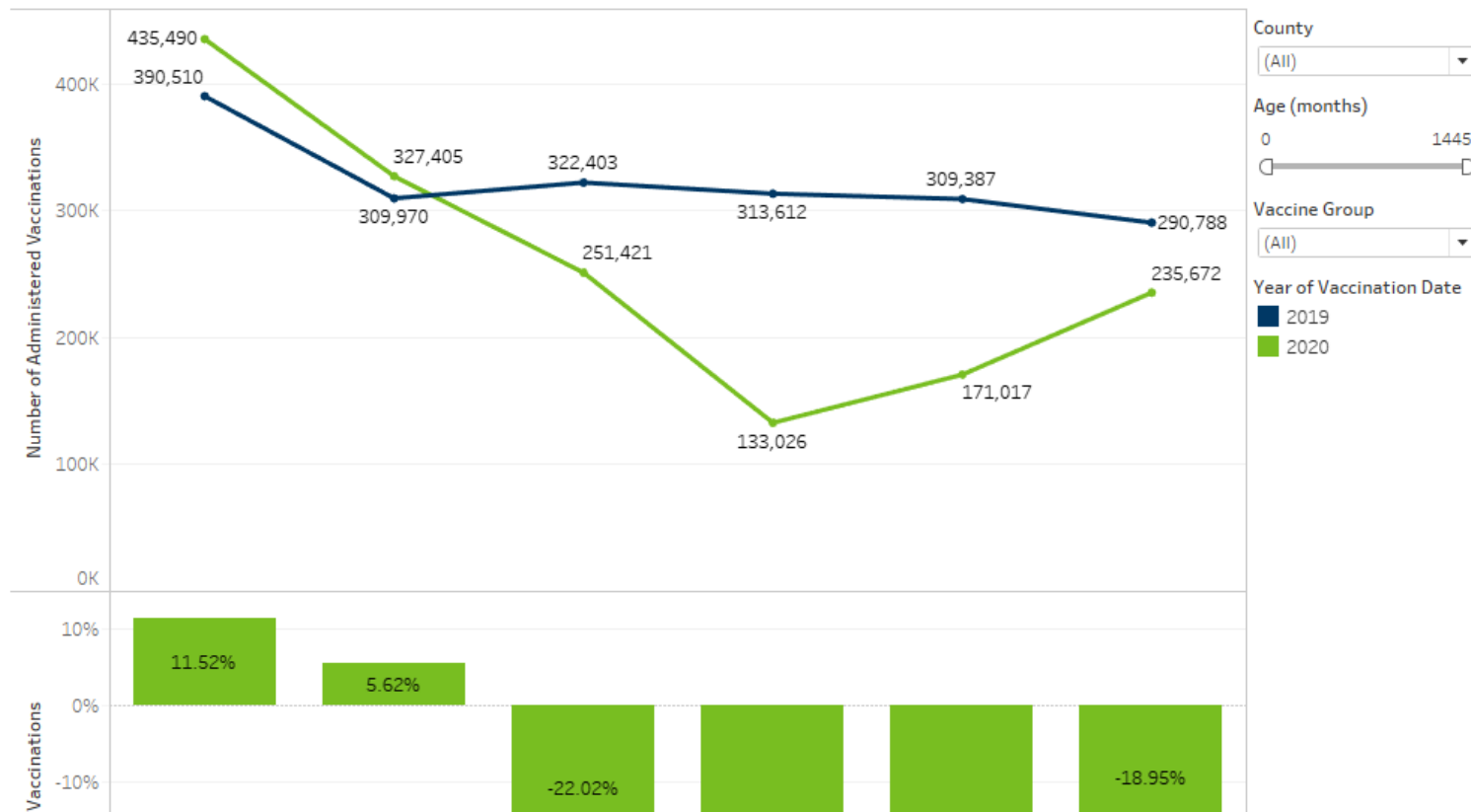


- Monthly Dashboard
- Compare trends by
  - Week/Month
  - Vaccine Group
  - Provider Type
  - Age groups

# Tableau Dashboard Demo

## 2019-2020 MIIC Immunization Comparison (Administered Vaccinations)

Navigation tabs: Monthly Over Time-MIIC Region, Weekly Over Time-MIIC Region, Monthly Over Time-County, Weekly Over Time-County, Monthly Over Time-Org Type, Weekly Over Time-Org Type, Monthly Over Time-County



# Planning Ahead: Seasonal Flu and COVID-19

- Creating routine dashboard
- Monitor vaccination administration
  - County
  - Age group
  - Provider type
- Planning for access/dissemination

# SAS /Excel

# Catch-Up Vaccination



- MMR Administration data
- Weekly updates:
  - Public web page
  - IIS Regional Coordinators

- Mid-season report
- Update existing or create template queries to run “just in time” queries
- Considering queries/graphs for routine web updates

- Update existing or create template queries to run “just in time” queries
- Planning to create routine web updates and sharing of data for COVID-19 dashboards

# Data in Action

# What are we doing with the data?

- Monitoring trends in catch-up vaccination
- Identify providers that administer flu vaccine for flu and COVID-19 outreach

# What can we do with the data?

- Examine trends of previous flu seasons to prepare for upcoming season
- Prepare to monitor vaccination administration in real-time and use to make decisions

# COVID-19

- Developing plan for COVID-19 vaccine data
- Topics include:
  - Reports
  - Queries
  - Talking Points
  - Data Requests

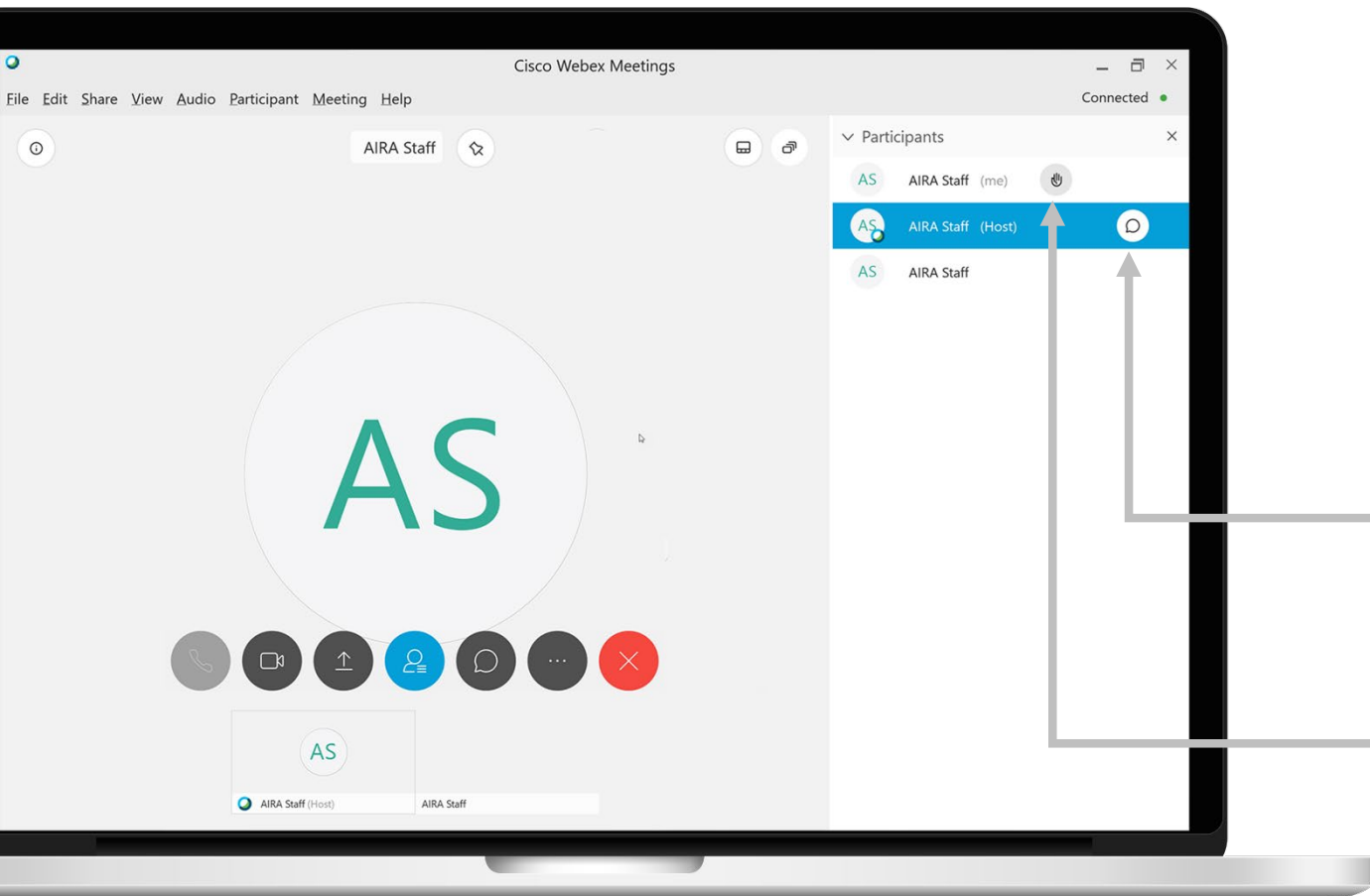
**Thank you.**

Sydney.Kuramoto@state.mn.us

# Questions, Comments, Discussion?

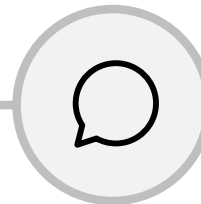


# Questions, Comments, Discussion?

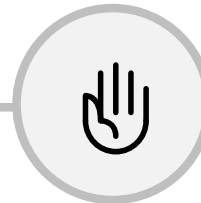


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- Via WebEx:




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

The next Discovery Session will be scheduled  
soon and will likely be in October