



Allegheny County Immunization Coverage and Health Department Initiatives

Kristen Mertz, MD, MPH
Medical Epidemiologist

Barbara Nightingale, MD
Deputy Director for Clinical Services

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Objectives

1. Describe burden of disease and vaccination coverage for selected vaccine preventable diseases
2. Provide update on school vaccination coverage in Allegheny County
3. Recognize ACHD immunization initiatives

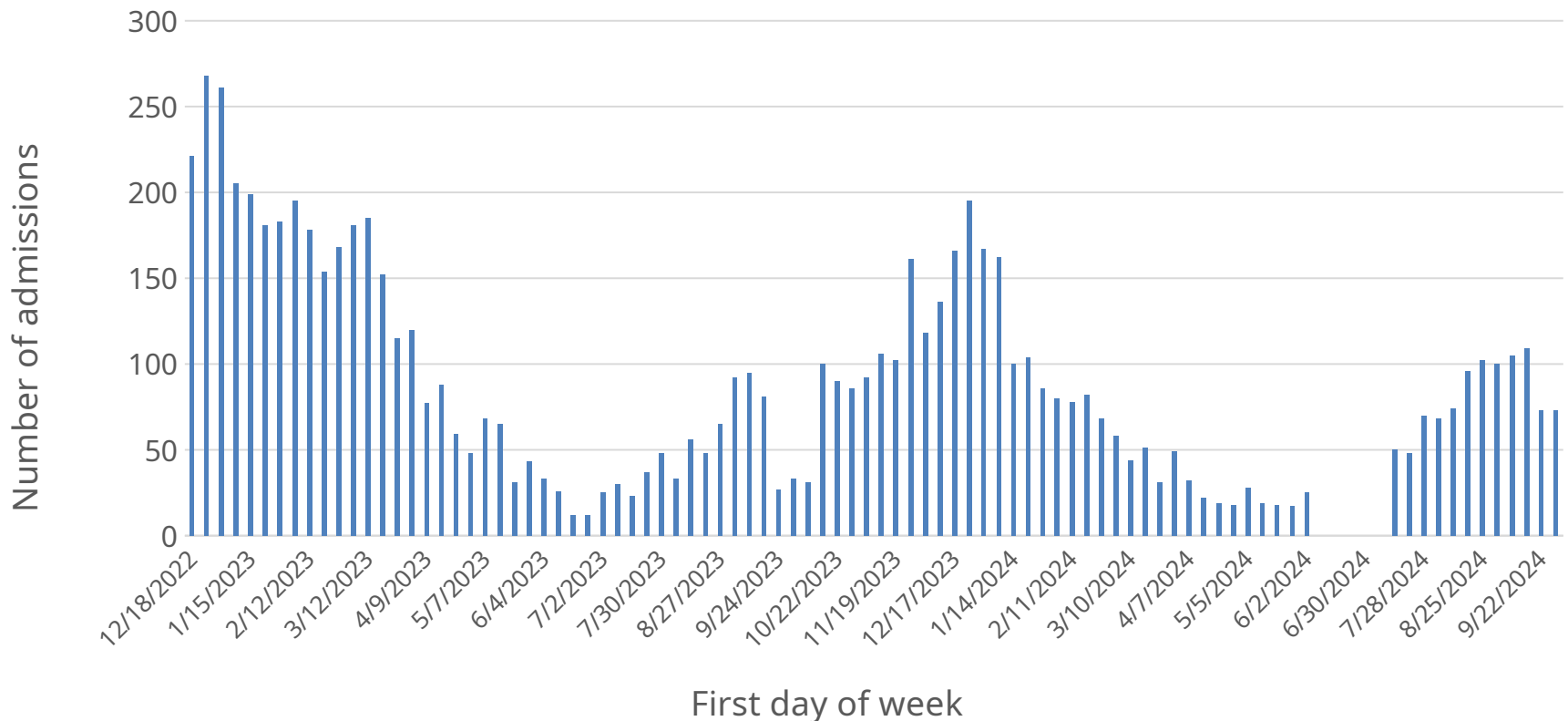


Case counts and vaccination coverage for selected vaccine preventable diseases in Allegheny County

- COVID-19
- Influenza
- RSV
- Mpox
- HPV
- Required school vaccines



Hospital admissions* with confirmed COVID by week, Allegheny Co hospitals, Dec 18, 2022- Oct 5, 2024



Data source: National Healthcare Safety Network

*All persons admitted with confirmed COVID-19, including residents of other counties



COVID-19 vaccine coverage

- 2022 bivalent shot
 - US (NIS): 27.1% adults, 18.5% teens
 - Allegheny County: 21.3% overall
- 2023-24 shot
 - US (NIS): 21.6% adults, 14.2% children
 - PA (PA-SIIS): 14.5% adults, 4.6% children
- 2024-25 shot
 - US (NIS): 13.5% , 4.8% children as of Oct 19
 - PA (PIERS): 4.4% adults, 0.7% children as of Sep 30



COVID-19 vaccination coverage among health care personnel

- 2023-24 shot
 - US data (NHSN)
 - 15.3% among acute care hospital staff
 - 10.5% among nursing home staff
 - PA data (NHAN)
 - 8.4% among acute care hospital staff
 - 9.6% among nursing home staff

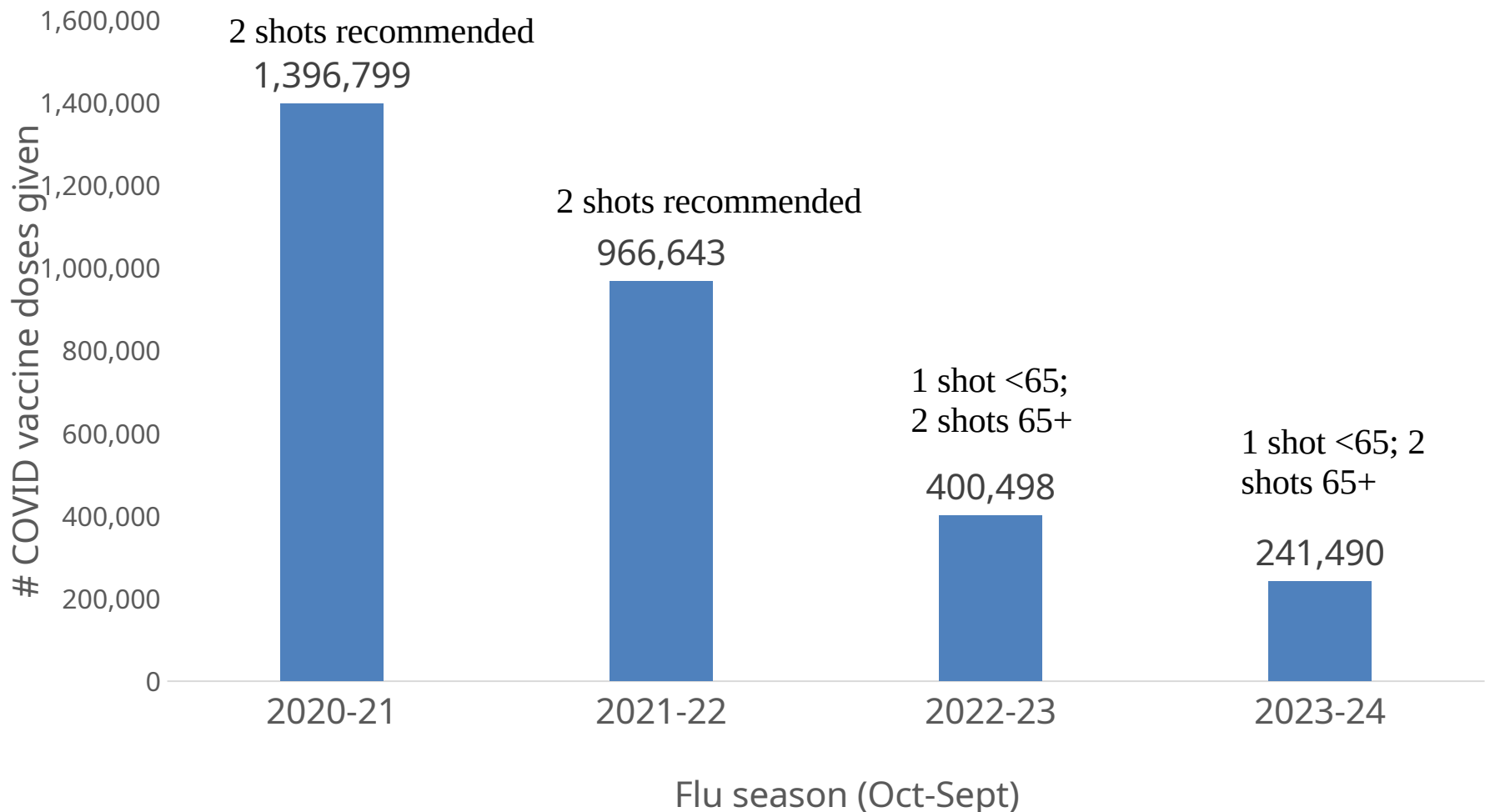


Percentage of nursing home residents up to date with COVID-19 vaccine as of Oct 27

- 2023-24 shot (NHSN)
 - US: 40.5% nursing home residents had received 2023-24 shot as of Feb 2024
- 2024-25 shot (NHSN)
 - US 24%, PA 25% (as of Oct 27)
 - Allegheny County (as of Oct 20): only 18 of 52 SNFs reported coverage >10%

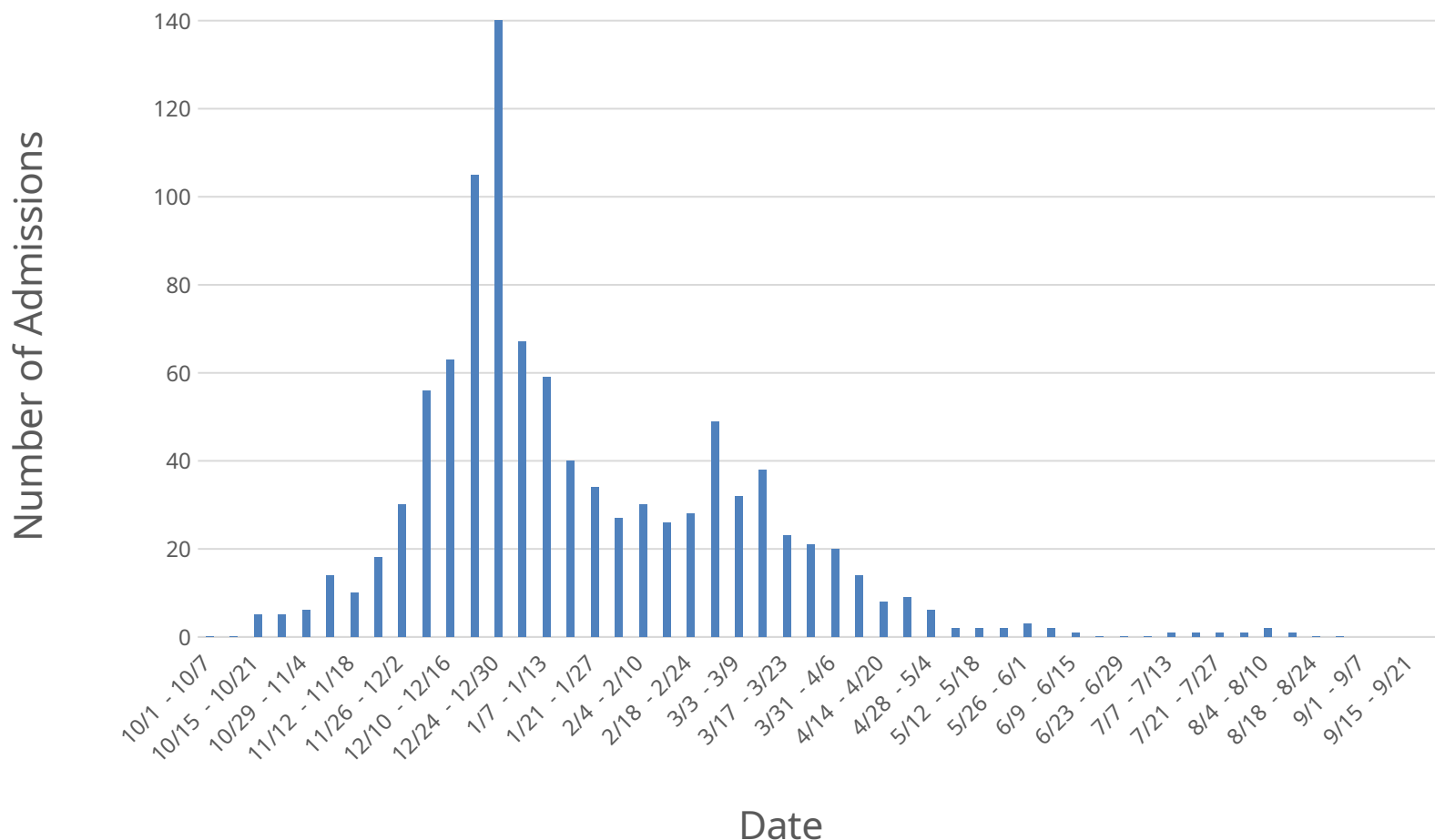


Number of COVID-19 vaccine doses given to Allegheny County residents, 2020-2024





Hospital admissions* with confirmed Influenza by week, Allegheny Co hospitals, October 1, 2023 – August 31, 2024



*All persons admitted with confirmed influenza, including residents of other counties



Influenza vaccine coverage

- 2023-24 shot
 - US (NIS): 44.9% adults, 55.4% children
 - PA (NIS): 44.7% adults, 57.2% children
- 2024-25 shot to date
 - US (NIS): 24.8% adults, 25.2% children as of Oct 19 (similar to last season)
 - PA (PIERS): 21.0% adults, 25.0% children as of Oct 12

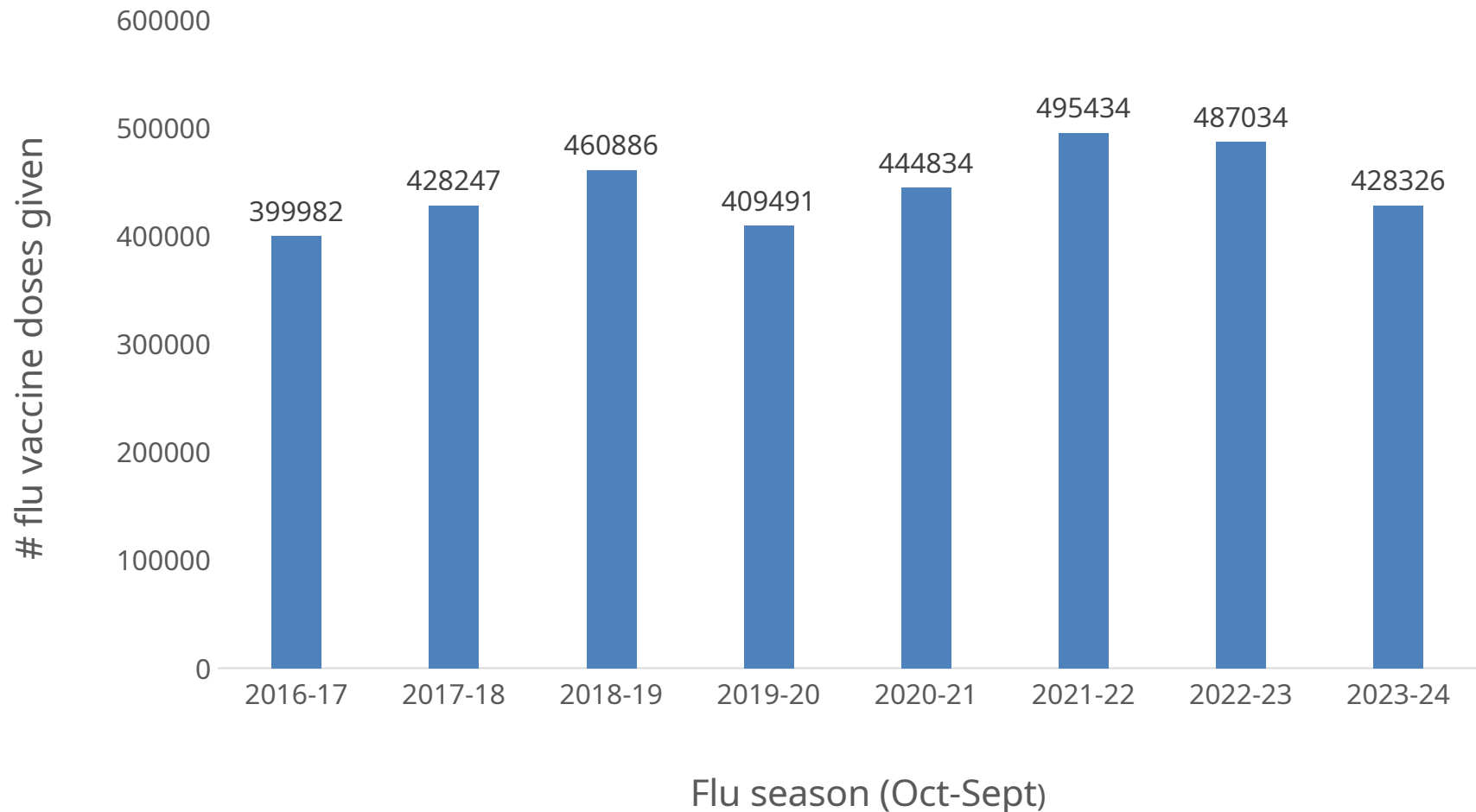


Flu vaccination coverage among health care personnel

- 2023-24 shot – US data (NHSN)
 - 80.7% among acute care hospital staff
 - 45.4% among nursing home staff
- PA data (NHSN)
 - 84.5% among acute care hospital staff
 - 47.5% among nursing home staff

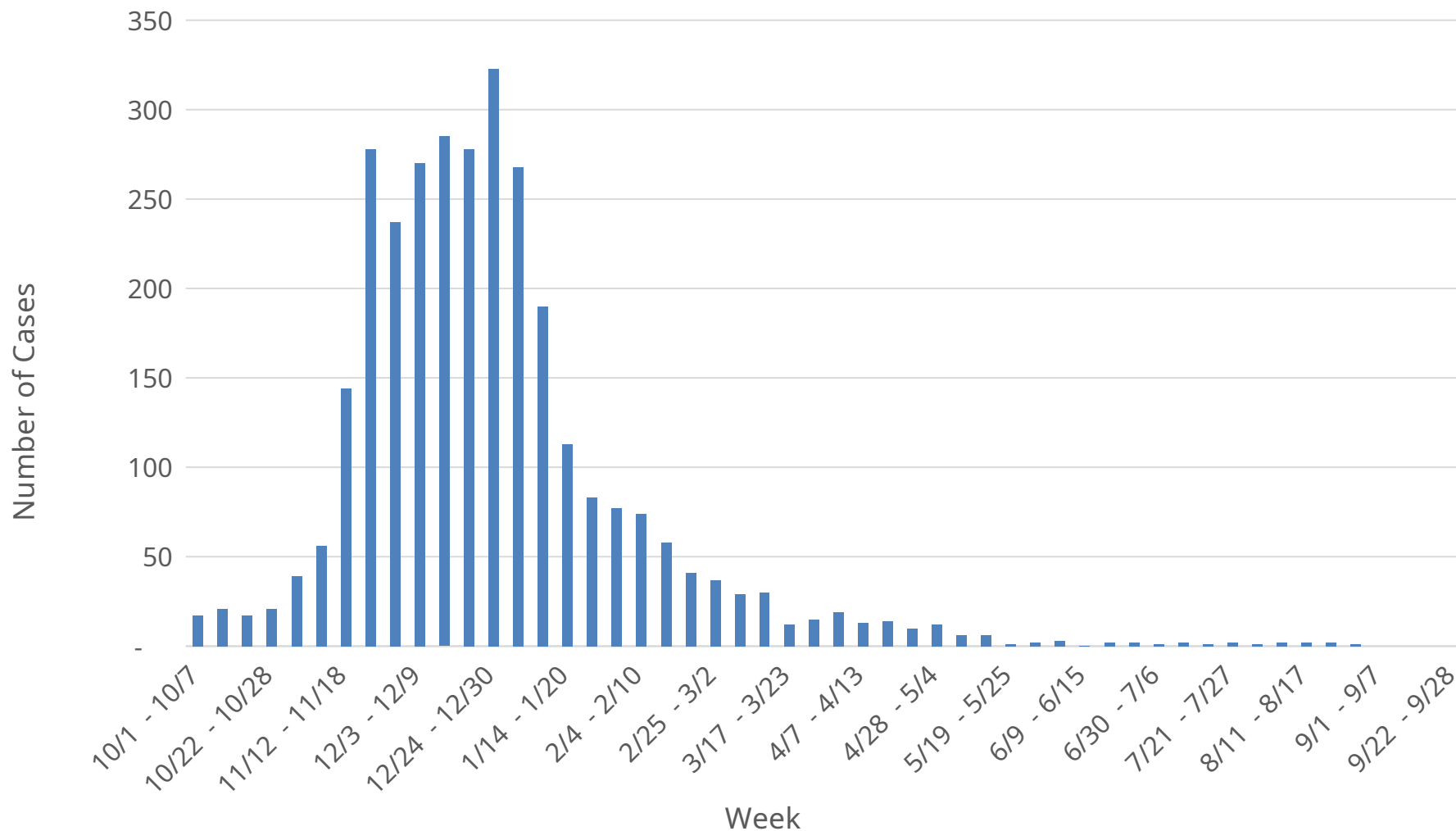


Number of flu shots given to Allegheny residents, 2016-2024





Lab-Confirmed Cases of RSV in Allegheny County October 1, 2023 – August 31, 2024





RSV vaccine coverage among older adults

- % ever receiving an RSV vaccine (as of Oct 19)
 - US (NIS): 37.6% adults 75+, 30.9% 60-74 with high-risk conditions

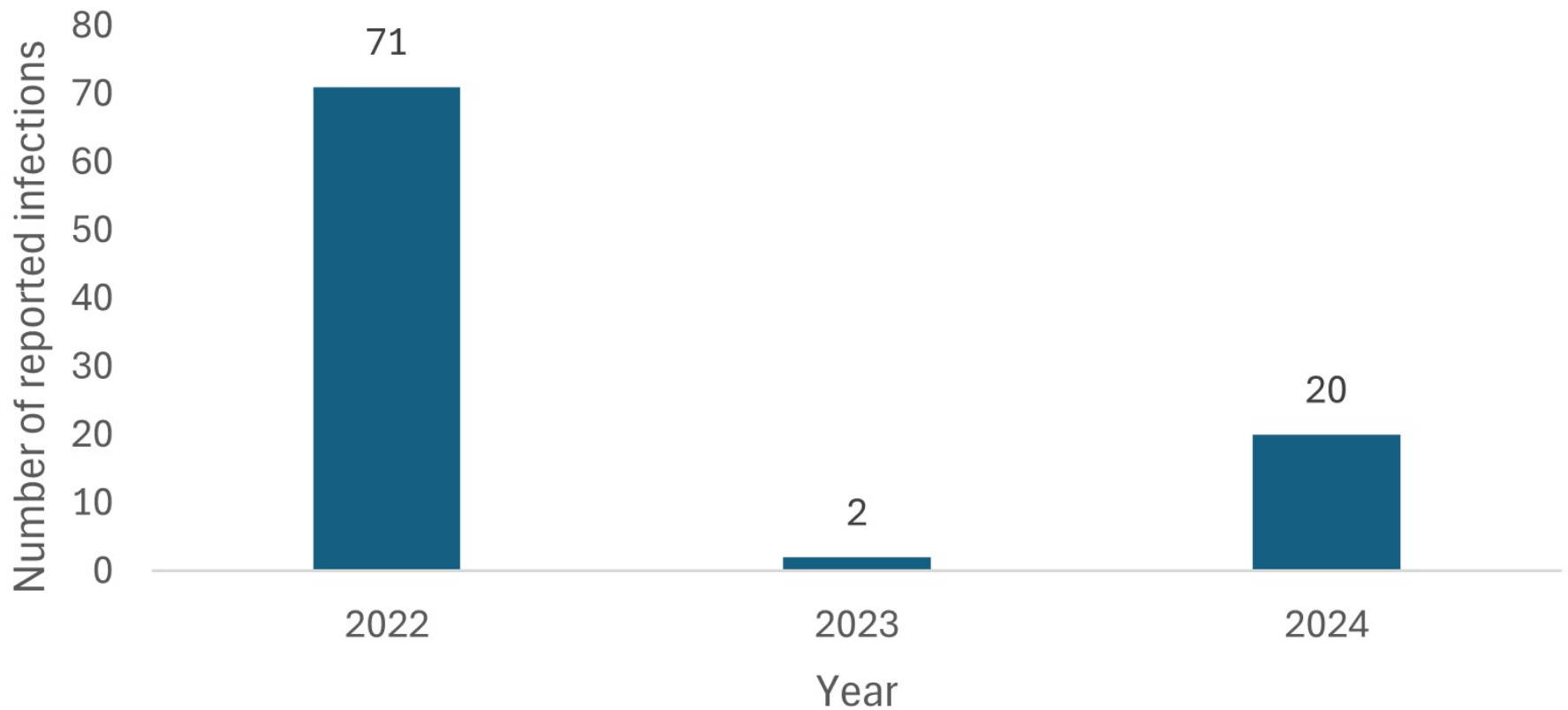


RSV vaccine coverage among pregnant persons and infants, 2023-2024

- Pregnant and ≥ 32 weeks gestation from Sept 22, 2023 through Jan 31, 2024
 - US (Vaccine Safety Datalink): 17.8%
 - Allegheny County: 1,252 RSV shots given to pregnant women
- % infants < 8 months receiving nirsevimab: US 41.3%
- Allegheny County data (PIERS): 1,801 nirsevimab shots given



Reported Mpox Infections by Year, Allegheny County



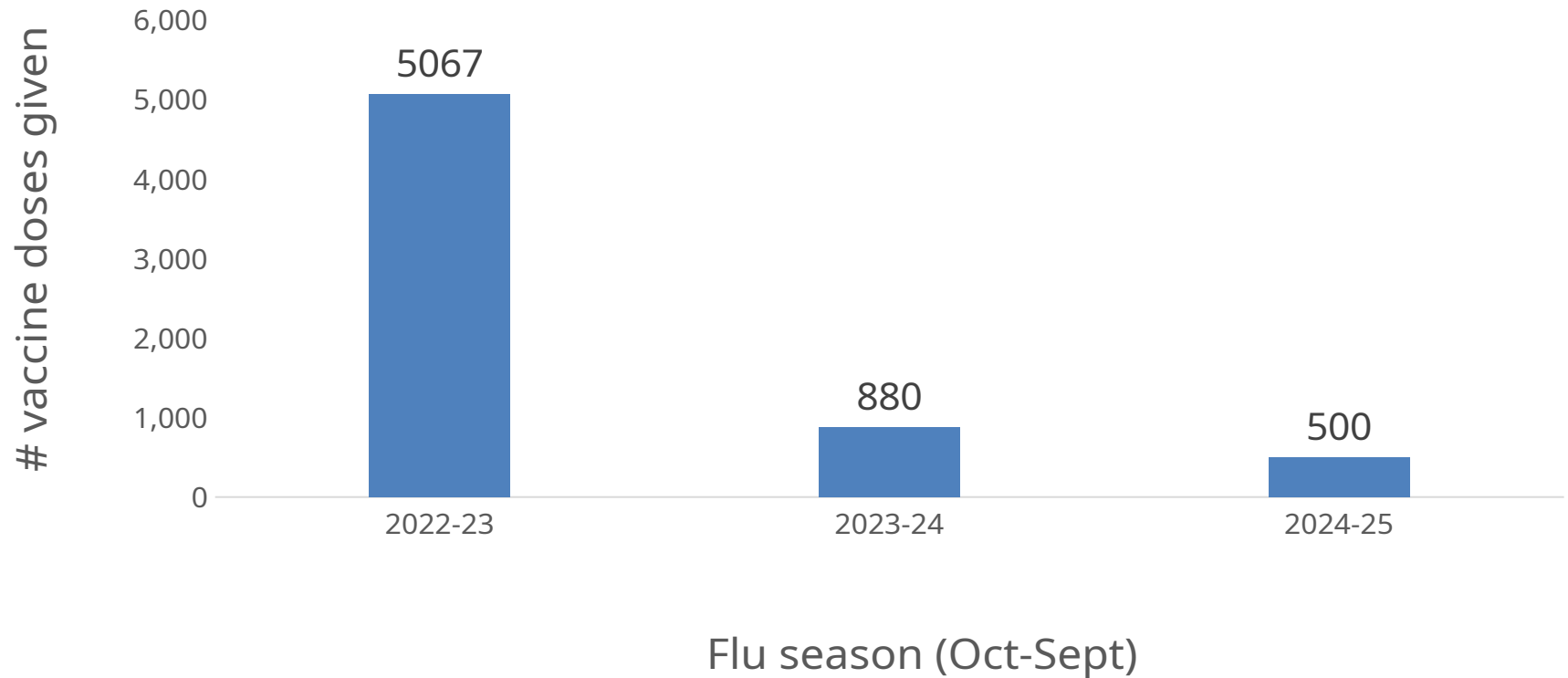


Jynneos vaccination coverage

- 2 doses recommended for persons at risk for mpox
 - Those exposed
 - MSM with multiple recent partners, a recent STD diagnosis, sex at commercial venue
- Estimated coverage among persons at risk as of Jan 31, 2023 (US)
 - One-dose: 36.7%
 - Two-dose: 22.7%



Number of Jynneos vaccine doses given to Allegheny County residents, 2022-2024





Vaccinations required for K-12 school entry in PA

- Diphtheria, tetanus, and pertussis (DTaP/Tdap)
- Polio
- Measles, mumps, rubella (MMR)
- Hepatitis B
- Varicella
- Meningococcal



Cases of VPDs associated with required school vaccines, Allegheny Co, 2014-2023

Disease	# reported cases
Diphtheria	
Tetanus	
Pertussis	493
Polio	
Measles	10
Mumps	23
Rubella	
Hepatitis B	68 (acute)
Varicella	252

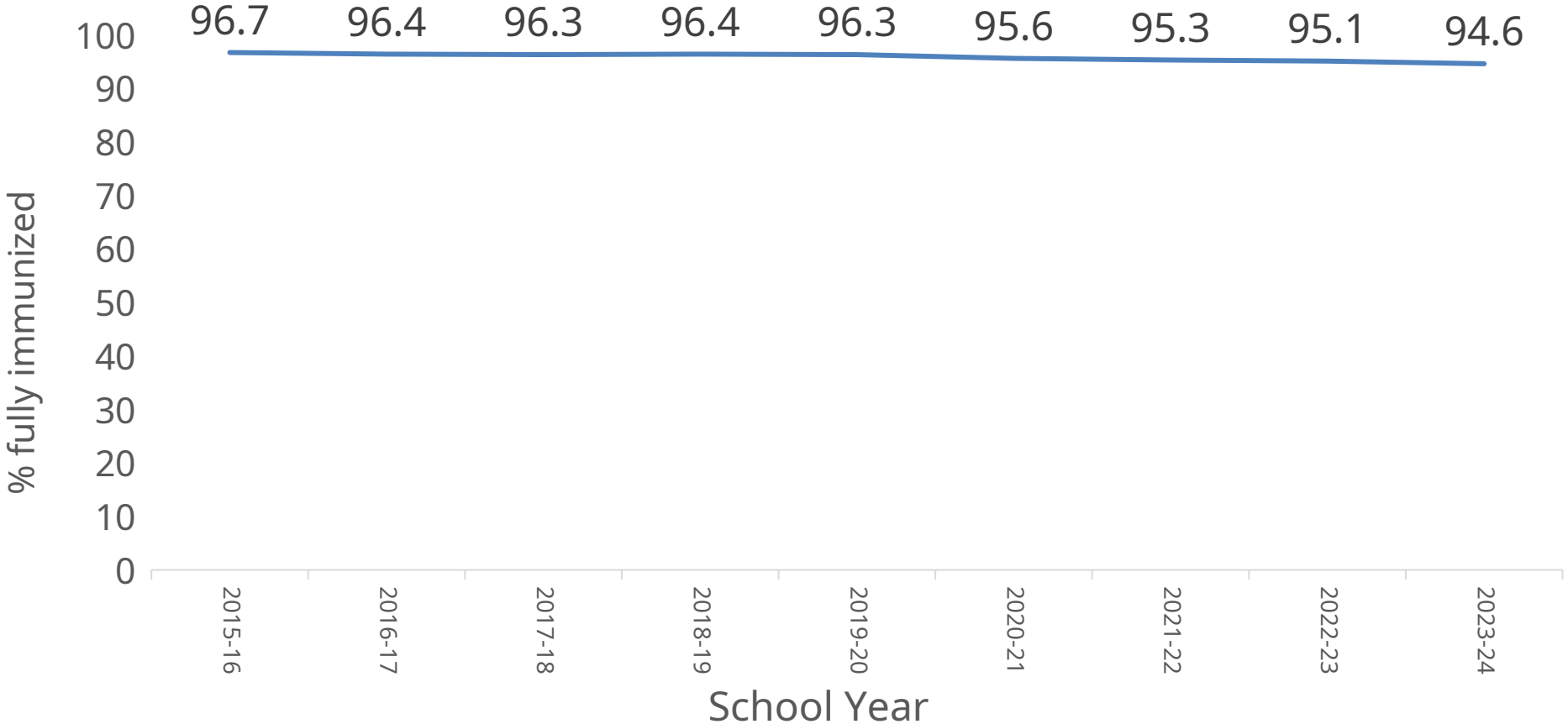


Student immunization status, 2023-2024

Status	N	%
Fully Immunized	148,634	94.6
Medical Exemption	689	0.4
Religious Exemption	2,850	1.8
Moral Exemption	2,137	1.4
Homeless Exemption	234	0.1
Provisionally Enrolled	2,323	1.5
Denied Admission	123	<0.1
Missing	59	<0.1
Total Enrollment	157,049	100.0



Percentage of students meeting vaccine requirements in Allegheny County, 2014-2023



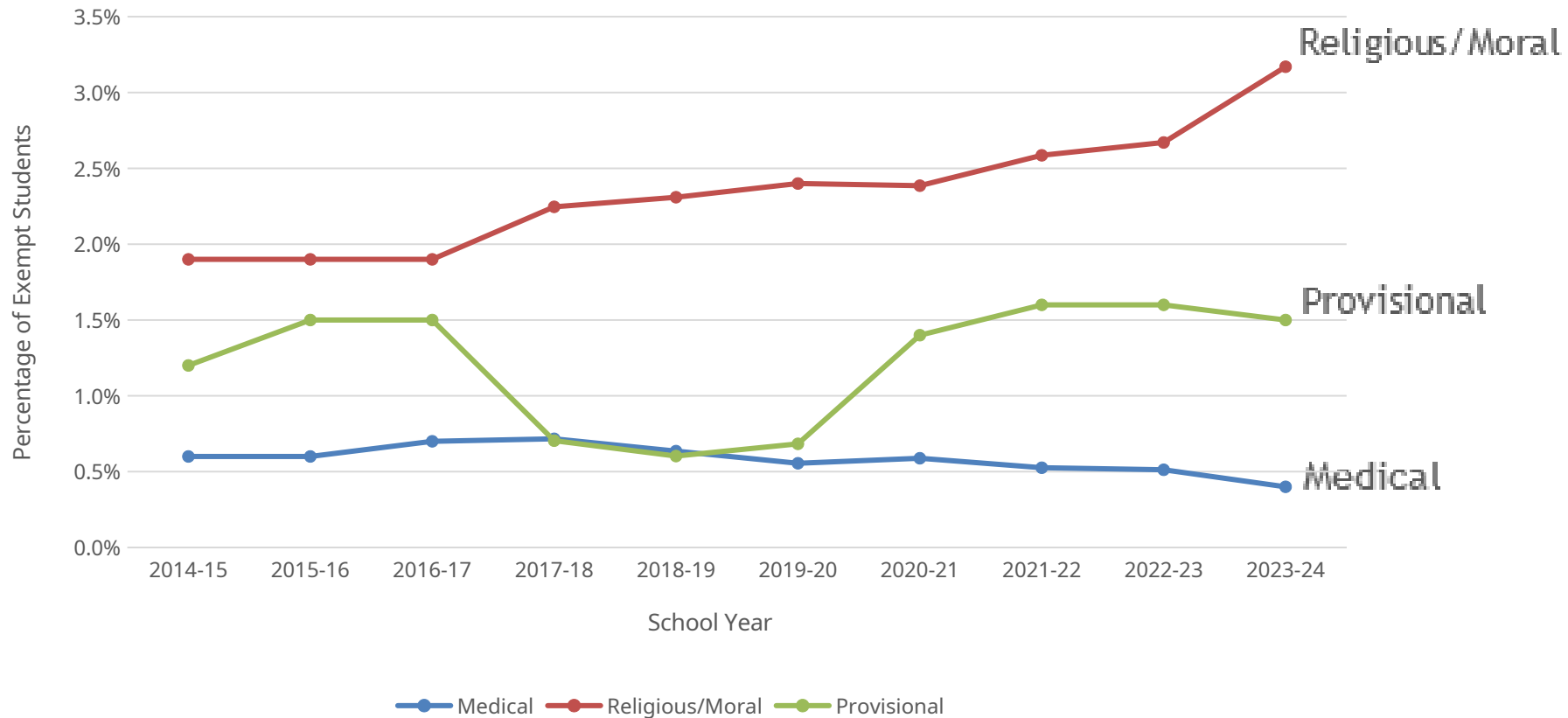


Fully immunized students by school type, 2014-15 and 2023-24

School type	Fully immunized 2014-15 (%)	Fully immunized 2023-24 (%)
Public	97.2	95.1
Charter	97.9	94.5
Parochial/religious	94.8	91.1
Private/independent	92.9	93.0



Percentage of students with exemptions, 2014-15 to 2023-24





Immunization coverage by vaccine type

Grade	Vaccine	% Vaccinated Allegheny County 2023-2024	% Vaccinated US* 2023-2024
K	MMR (2 dose)	94.7	92.7
	VZV (2 dose)	94.3	92.4
	HBV (3 dose)	95.7	n/a
	Polio (4 dose)	94.6	92.6
	DTaP (4 dose)	94.9	92.3 (5 doses)
7th	MCV4 (1 dose)	93.6	n/a
	Tdap (1 dose)	93.6	n/a
12th	MCV4 (2 dose)	92.1	n/a

*Data source: [Coverage with Selected Vaccines and Exemption Rates Among Children in Kindergarten — United States, 2023–24 School Year | MMWR](#)



Reasons reported for low vaccination at schools with < 85% coverage (N=48)*

- Schools with low coverage faced several problems:
 1. Distrust of vaccines among parents
 2. Difficulties with documentation and reporting

Lack of enforcement	Difficulty Obtaining Records	Difficulty Accessing Vaccine Providers	Parents' Belief in Vaccine Misinformation	Religious or Moral Beliefs
15.2%	37.0%	28.3%	30.4%	30.4%

*Data from 2022-2023 and 2023-24 school years

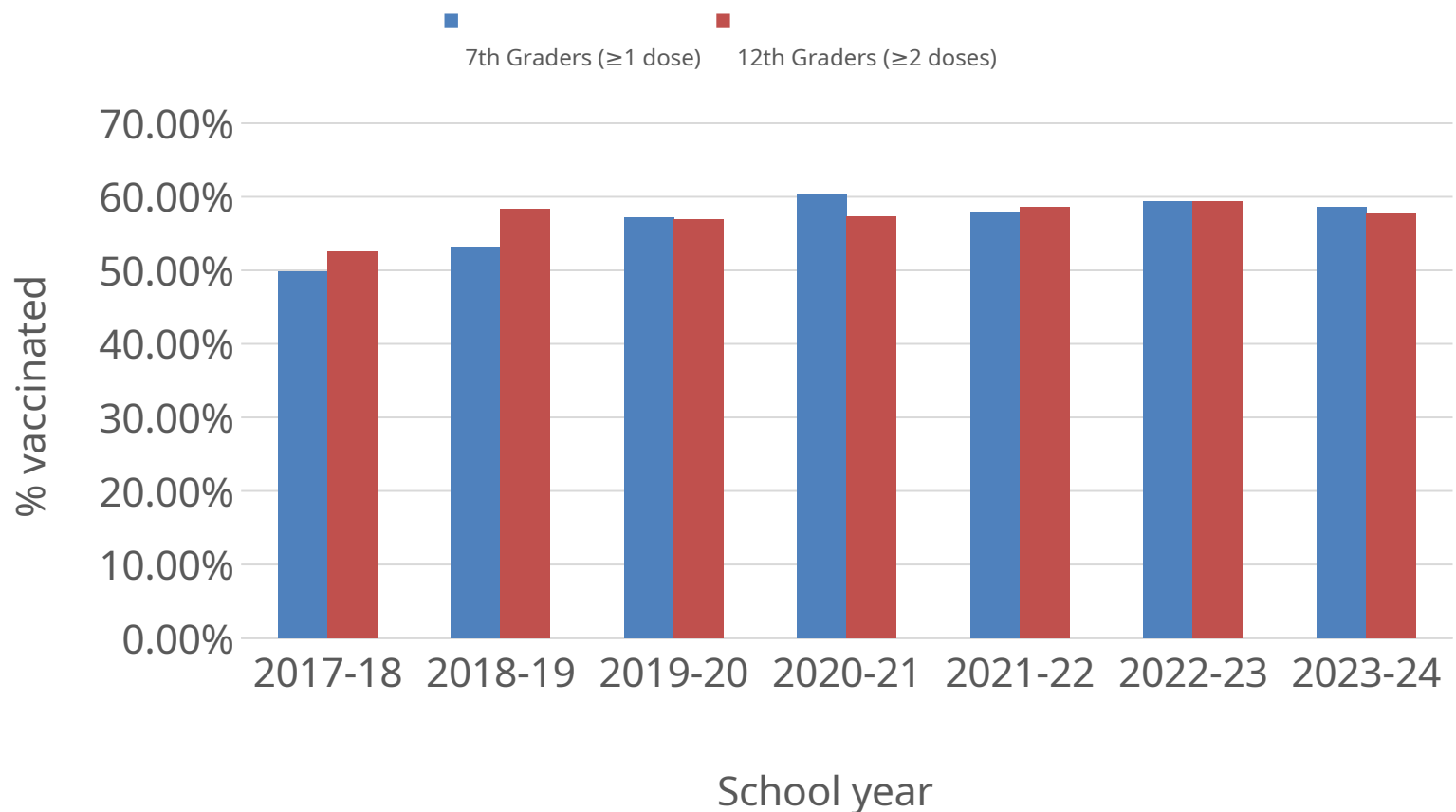


Human papillomavirus (HPV) vaccine data

- HPV vaccine not required for school entry
- School nurses submit data on HPV vaccine for 7th and 12th graders



HPV Vaccine Coverage, 7th & 12th graders 2017-18 to 2023-24



NIS 2023 (data for US) for ages 13-17: 61.4% UTD



Summary

- COVID hospitalizations still surge but only a small % persons get shots; HCWs very reluctant
- Flu vaccination coverage higher than COVID coverage; RSV coverage increasing
- School vaccination coverage still high for required vaccines but showing slow decline
- Coverage among children for ACIP recommended vaccines that are not required is lower (e.g. HPV, COVID, flu)



ACHD Initiatives

- Vaccines at ACHD Clinics
- Vaccines in the Community
- Promotional Efforts





ACHD Clinic Initiatives

STI Clinic vaccines
(Hep A, Hep B,
mpox, HPV)

Travel Consult
Improvements

FQHC Referrals



Emergency Medical Services- Hep A vaccine/Hep C testing

Locations

- Homeless encampments
- Shelters
- Prevention Point Pittsburgh sites

Early success (started Oct 2024)

- 2 events
- 18 Hep A vaccines administered
- 14 Hep C antibody tests completed (8 reactive)



Drug and Alcohol Facilities- Hep A and Hep B Vaccines

2022 survey of DHS-contracted facilities

- 62% reported HBV vaccines (onsite or partner)
- 54% reported HAV vaccines (onsite or partner)

6 site visits (8 reported interest)

- 37 HAV and 28 HBV vaccines



Senior (65+) High Rise Vaccines

>40 low-income senior high-rise buildings

- Work with housing authorities and landlords

COVID and flu vaccines during respiratory season

- Started February 2021

ACHD clinic staff + Medical Reserve Corps



Vaccine Home Visits

Vaccine
Coordinator
receives calls
from
community
members



Visits
organized by
region



Teams
dispatched to
provide
COVID and flu
vaccines



Community Vaccine Events

Partnership with community organizations in under-resourced communities

- Examples- Libraries, Farmer's markets, Churches, Community centers, Parks, Family support centers (Urban League collaboration)

2024

- 7 COVID-19/flu clinics
- 2 Mpox clinics
- 5 back-to-school clinics (family support centers)



In-School Vaccine Pilot

94.6% coverage for required vaccines across Allegheny County

- Lowest in past decade
- Barriers include: Housing insecurity, Language, Healthcare Access

Partnership with schools with vaccination rates <90%

- Work with school nurses to host vaccine clinics at school

Results thus far

- 4 events (middle and high schools)
- 39 students
- 65 vaccines administered



Evaluation to Combat Vaccine Misinformation and Hesitancy

Comprehensive evaluation of vaccine promotion efforts

Community assessment

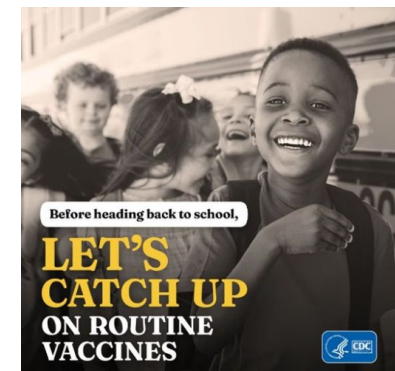
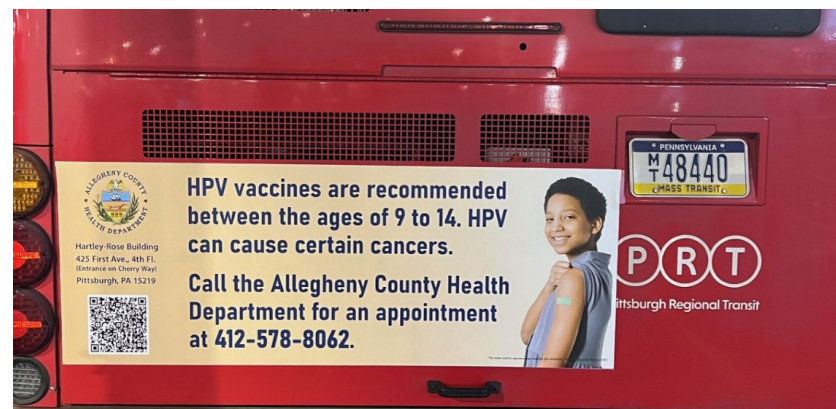
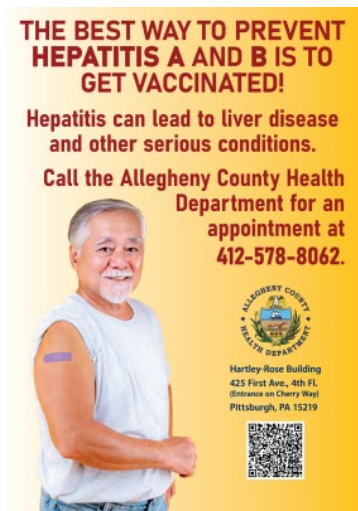
- Perception of vaccines
- Barriers to vaccine uptake
- Causes of vaccine hesitancy of priority populations

Create plan with strategies to

- Prevent the spread of misinformation
- Best way to communicate accurate and culturally relevant information related to vaccines



Vaccine Promotion



- Upcoming 2025 Vaccine Media Campaign
 - Funded by PADOH
 - January 1 to June 30, 2025



Questions?