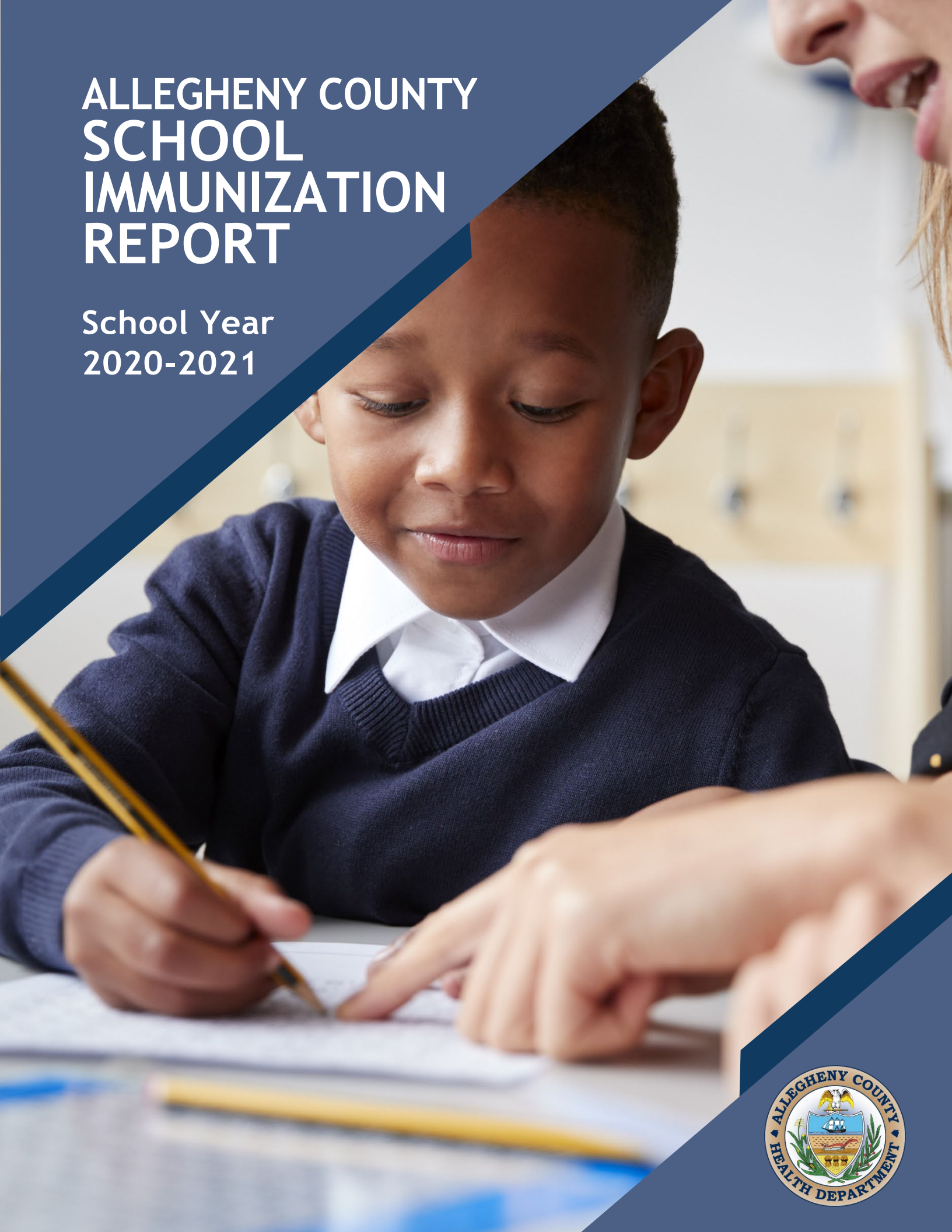


ALLEGHENY COUNTY SCHOOL IMMUNIZATION REPORT

School Year
2020-2021



ALLEGHENY COUNTY SCHOOL IMMUNIZATION REPORT SCHOOL YEAR 2020-2021

A publication of the
**ALLEGHENY COUNTY HEALTH DEPARTMENT
BUREAU OF DATA, REPORTING, AND DISEASE CONTROL**

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EXECUTIVE SUMMARY



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The Allegheny County Health Department (ACHD) Rules and Regulations, Article X, “School Health Immunization,” was promulgated to “ensure that all school children are immunized against diseases which spread easily in schools and interrupt school life and learning for individuals and groups. [These regulations] affect all public, private, parochial, charter and cyber schools including all kindergartens, special education classes, home education programs, and vocational classes in Allegheny County.” To assure that schools in Allegheny County are complying with these regulations, the ACHD requires all schools to submit summary data on the immunization status of all students annually. [These data](#) are provided to the public at the school level to ensure public awareness of vaccination coverage.

This report summarizes the immunization data from the 2020-2021 school year in Allegheny County. It is organized into four parts: (1) overall immunization, (2) provisional enrollment, (3) immunization exemptions, and (4) immunization status by type of vaccine. Data are primarily presented by school type or by grade. For comparison, data from previous school years are included.

Highlights:

- The percentage of students with all immunizations required for school entry was 95.6% in December 2020, down from 96.3% in December 2019.
- The grades that did not exceed 95% complete immunization coverage were kindergarten (94.2%), 7th grade (91.8%), and 12th grade (89.6%). Additional doses of certain vaccines are required to enter 7th and 12th grades.
- The percentage of Allegheny County schools with at least 95% of students fully immunized fell to 67.8% in 2020-2021, down from 77.7% in 2019-2020.
- In Allegheny County, 1.4% of all students were provisionally enrolled in December of 2020; kindergarten (3.0%), 7th grade (4.9%), and 12th grade (6.4%) had the highest percentages of students enrolled provisionally due to new or additional immunization requirements upon entering those grade levels.
- Overall, 3.0% of students submitted medical or religious/moral exemptions. Students at parochial/religious schools (4.5%) and private/independent schools (4.3%) had the highest percentage of exemptions.

INTRODUCTION

Allegheny County Health
Department's Administration
Building in downtown Pittsburgh



INTRODUCTION

The ACHD requires all schools (public, private/independent, parochial/religious, charter, and cyber) to submit data each school year detailing total enrollment, number of students fully immunized, number of students enrolled provisionally, and the number of students with medical or religious/moral exemptions, as per Article X of ACHD's Rules and Regulations.¹ ACHD collects data on every grade to get a more comprehensive view of the immunization coverage at all grade levels. The Pennsylvania Department of Health (PADOH) collects data on immunization status from every school in the state, but only for students in kindergarten and 7th grade.² The ACHD provides immunization data by school to the public [here](#).

To maintain healthy students and communities, all students enrolled in Kindergarten through 12th grade in Allegheny County are required to have the appropriate number of doses of the diphtheria, tetanus, and acellular pertussis (DTaP), hepatitis B (HBV), measles, mumps, and rubella (MMR), polio, and varicella (VZV) vaccines.¹ For students enrolled in 7th grade and above, two additional vaccines are required at a single dose each: tetanus, diphtheria, and acellular pertussis (Tdap) and meningococcal (MCV4).¹ Students in 12th grade are required to have an additional dose of MCV4.²

Immunization are recognized as a national priority of the *Healthy People 2020* initiative established by the United States Department of Health and Human Services. Outlining public health goals to be reached by the year 2020, *Healthy People 2020* sets a 95% immunization coverage goal for children entering kindergarten for five vaccines and an 80% coverage goal for children ages 13-15 for the Tdap and MCV4 vaccines.³

Provisional enrollment allows students who have at least one dose in a multi-dose vaccine series to start the school year if there is an explicit plan in place to receive or schedule the remaining required doses over a five-day provisional period. If the provisional period expires before the

**ALLEGHENY COUNTY HEALTH
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student receives or is scheduled to receive all required doses, the student is to be denied admission to school. The provisional period was shortened from 8 months to 5 days beginning with the 2017-2018 school year.

Students may also be admitted to school without being fully immunized if their parent or guardian submitted exemption paperwork. Exemptions can either be medical, religious, or moral/philosophical, and they do not expire as provisional enrollment does. Medical exemptions can be obtained for students who have a condition for which a vaccine is contraindicated and must be documented by the student's physician. Religious and moral exemptions are submitted in writing by the student's parent or guardian.

Vaccines recommended for children by the Advisory Committee on Immunization Practices in 2020 but not required for school entry in Pennsylvania include those for rotavirus, *Haemophilus influenzae* type B (HiB), pneumococcal disease, influenza, hepatitis A and human papillomavirus. The list of required vaccines for school entry varies by state.

This report uses data submitted in December 2020⁴ by all Allegheny County schools to summarize the immunization status of students for required vaccines in the 2020-21 school year. The Bureau of Data, Reporting, and Disease Control at ACHD was responsible for collecting, cleaning, and analyzing the data.

¹ Allegheny County Health Department, *Article X: School Health Immunization*. (Accessed August 31, 2020); available from https://alleghenycounty.us/uploadedFiles/Allegheny_Home/Health_Department/Article-10-School-Immunizations.pdf

² Commonwealth of Pennsylvania, 28 Pa. Code Part III, Ch 23, Subch C §23.86. *School Reporting*. (Accessed July 24, 2018), available from <http://www.pacode.com/secure/data/028/chapter23/subchapCtoc.html>

³ U.S. Department of Health and Human Services, *Healthy People 2020 Immunization and Infectious Diseases: Objectives*. July 2015, Accessed July 24, 2018, available from <https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives>

⁴ Data updated as of June 24, 2021

DATA



DATA

Student Immunization Coverage in Allegheny County

Based on the reported data, 156,767 students were enrolled in 363 Allegheny County schools in December 2020. Of the students enrolled, a large majority (83.9%) attended public schools (Table 1).

Table 1. Allegheny County School Enrollment, December 2020

School Type	Number of Students Enrolled		Number of Schools	
	N	(%)	N	(%)
Charter	8,134	(5.2)	20	(5.5)
Parochial/Religious	11,577	(7.4)	53	(14.6)
Private/Independent	5,469	(3.5)	44	(12.1)
Public	131,587	(83.9)	246	(67.8)
Total	156,767	(100.00)	363	(100.00)

The overall percentage of students in Allegheny County with all immunizations required for school entry was 95.6% for the 2020-21 school year (Table 2).

Table 2. Allegheny County Immunization Status of All Students, School Year 2020-2021

Status	N	%
Total Enrollment	156,767	100.0%
Fully Immunized	149,800	95.6%
Medical Exemption	922	0.6%
Religious Exemption	2,150	1.4%
Moral/Philosophical Exemption	1,590	1.0%
Homeless Exemption	44	<0.1%
Provisionally Enrolled	2,265	1.4%
Denied Admission	147	<0.1%

Individual grades showed high percentages of fully immunized students, with only Kindergarten (94.2%), 7th grade (91.8%), and 12th grade (89.6%) falling short of 95% coverage (Table 3). These grades most likely had lower coverage due to their increased and new vaccination requirements. The percentage of students with complete immunizations (95.6%) was slightly lower than in the previous school year (Table 3). Overall coverage still exceeds 95%; however, there has been a downward trend in overall coverage since the 2013-14 school year. Year-to-year variations by grade has been minimal, apart from a drop in 12th grade coverage from 2016-17 (96.9%) to 2017-18 (92.9%) when the new requirement for a second dose of the MCV vaccine was introduced, and the recent drops in 7th and 12th grade coverage from 2019-2020 to 2020-2021 when many schools switched to virtual learning due to the COVID-19 pandemic and need for social distancing.

Table 3. Percentage of Fully Immunized Students by School Year and Grade, Allegheny County, School Years 2013-14 to 2020-21

Grade	Mar-14 %	Apr-15 %	Apr-16 %	Apr-17 %	Dec-17 %	Dec-18 %	Dec-19 %	Dec-20 %
K	94.7	94.3	94.9	94.9	96.4	95.8	95.8	94.2
1 st	97.0	96.3	96.2	96.8	96.7	97.1	96.7	96.8
2 nd	97.2	96.9	96.8	96.4	97.3	97.0	97.2	96.6
3 rd	97.3	96.9	96.9	96.8	96.6	97.3	97.0	97.3
4 th	97.1	97.1	97.2	97.0	97.1	96.9	96.9	96.9
5 th	97.4	97.3	97.0	97.2	96.9	97.3	96.7	97.1
6 th	97.5	97.4	97.2	97.3	97.3	97.2	97.1	96.7
7 th	96.4	96.4	96.2	94.8	95.9	95.6	95.7	91.8
8 th	96.8	96.7	96.7	96.4	96.5	96.6	96.4	96.2
9 th	96.9	96.5	96.8	96.2	96.4	96.1	95.9	96.4
10 th	96.9	97.3	96.6	96.2	96.0	96.5	96.6	96.2
11 th	97.0	97.3	97.2	96.1	96.3	96.8	96.9	96.4
12 th	97.5	97.2	97.2	96.9	92.9	93.3	93.4	89.6
Total	96.9	96.7	96.7	96.4	96.3	96.4	96.3	95.6

Allegheny County schools were classified as charter, parochial/religious, private/independent, or public. Public schools account for 67.8% of the schools and 83.9% of the total students in Allegheny County (Table 1); public schools had complete immunization coverage of 95.8% in 2020-2021 (Table 4). Charter schools also had high complete immunization coverage (95.2%). Both private/independent (94.1%) and parochial/religious schools (93.3%) did not meet the *Healthy People 2020* goal of 95% coverage.

Historically, public schools and charter schools have consistently reached at least 95% complete immunization coverage (Table 4). Parochial/religious schools have not met the 95% goal since 2013 while private/independent schools did not meet the 95% goal since 2017.

Table 4. Percentage of Fully Immunized Students by School Type, Allegheny County, 2013-2020

School Type	Mar-14	Apr-15	Apr-16	Apr-17	Dec-17	Dec-18	Dec-19	Dec-20
Charter	96.3%	97.9%	98.0%	95.6%	96.7%	97.0%	96.4%	95.2%
Parochial/Religious	94.9%	94.8%	94.8%	94.4%	94.2%	94.8%	94.1%	93.3%
Private/Independent	95.0%	92.9%	95.1%	94.6%	94.2%	92.2%	93.0%	94.1%
Public	97.2%	97.2%	96.9%	96.7%	96.6%	96.7%	96.7%	95.8%

Overall, 67.8% of all Allegheny County schools had at least 95% coverage (Table 5). This is a notable decrease from the 2019-20 school year when 77.7% of schools had at least 95% coverage.

Table 5. Percentage of Schools With >95% Coverage by School Type, Allegheny County, December 2020

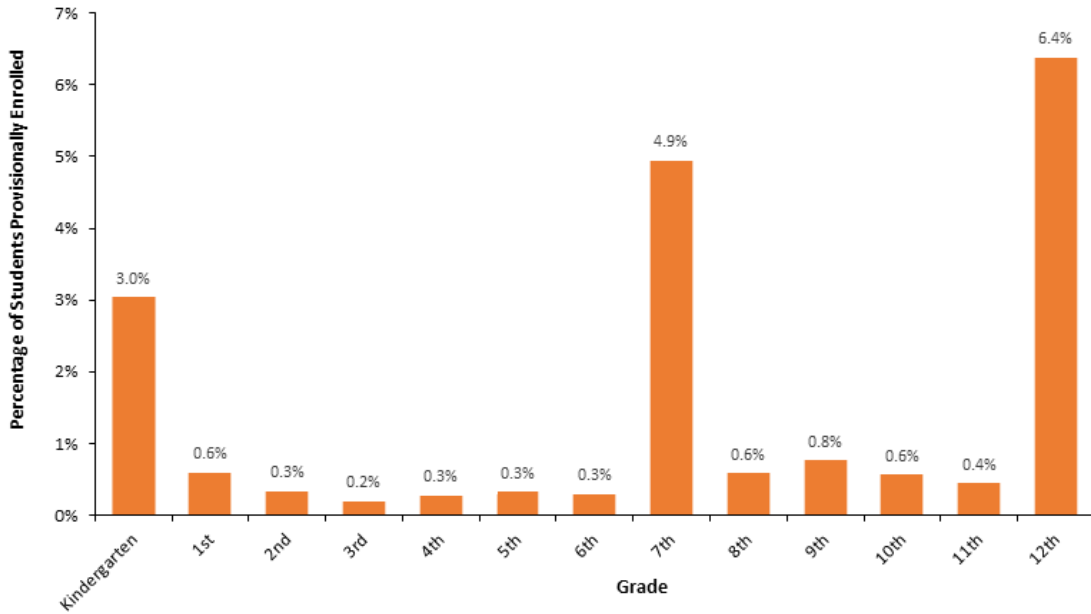
School Type	Number of Schools	Number of Schools that Met 95% Goal
	N	N (%)
Charter	20	13 (65.0%)
Parochial/Religious	53	23 (43.4%)
Private/Independent	44	25 (56.8%)
Public	246	185 (75.2%)
Total	363	246 (67.8%)

THE OVERALL PERCENTAGE OF STUDENTS IN ALLEGHENY COUNTY WHO HAD RECEIVED ALL REQUIRED IMMUNIZATIONS FOR SCHOOL ENTRY WAS **95.6%** FOR THE 2020-21 SCHOOL YEAR.

Provisional Enrollment in Allegheny County

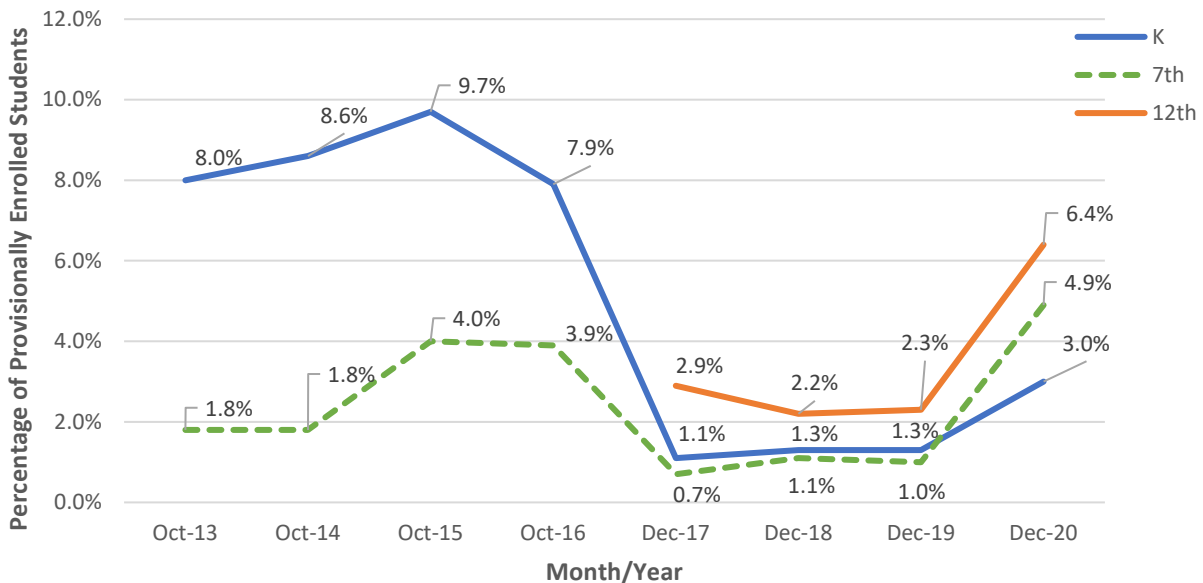
As of December 2020, 1.4% of students in Allegheny County schools were provisionally enrolled (Table 2). Higher levels of provisional enrollment were seen in kindergarten, 7th, and 12th grades than in other grade due to additional immunization requirements (Figure 1).

Figure 1. Percentage of Students Provisionally Enrolled by Grade, Allegheny County, 2020-21



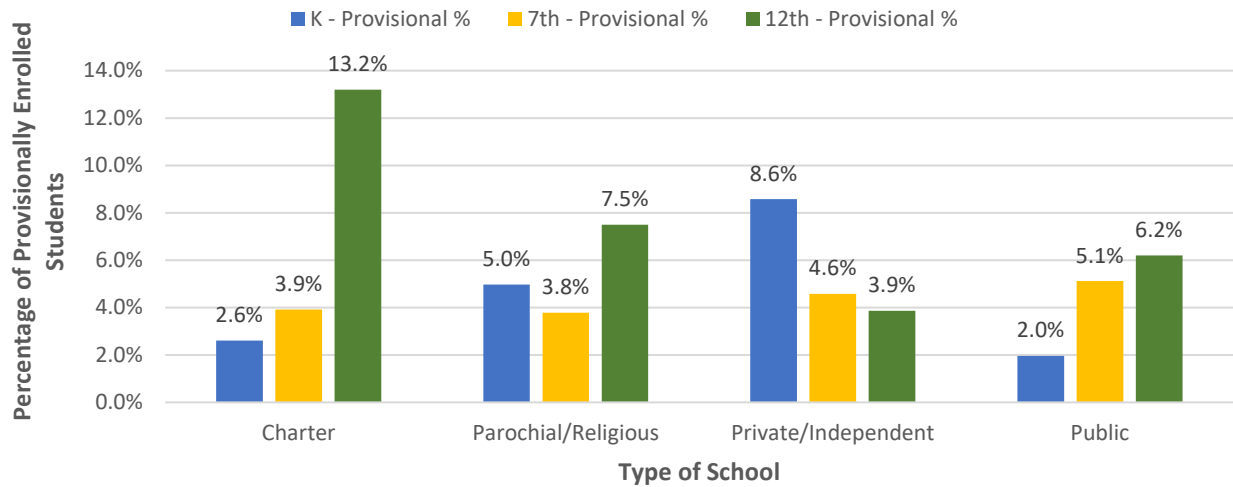
A large drop in provisional enrollment occurred in 2017-18, most likely because the provisional period was changed (Figure 2). It now ends before the deadline for reporting immunization data. The increase in 2020-2021 corresponded to the switch to remote learning in many jurisdictions.

Figure 2. Percentage of Provisionally Enrolled Kindergarten, 7th, and 12th Grade Students by Year, Allegheny County, 2013-14 SY to 2020-21 SY



As seen in Figure 3, all school types except for private/independent schools had the highest percentage of provisionally enrolled students in 12th grade.

Figure 3. Percentage of Students Provisionally Enrolled by School Type, Allegheny County, 2020-2021



Immunization Exemptions in Allegheny County

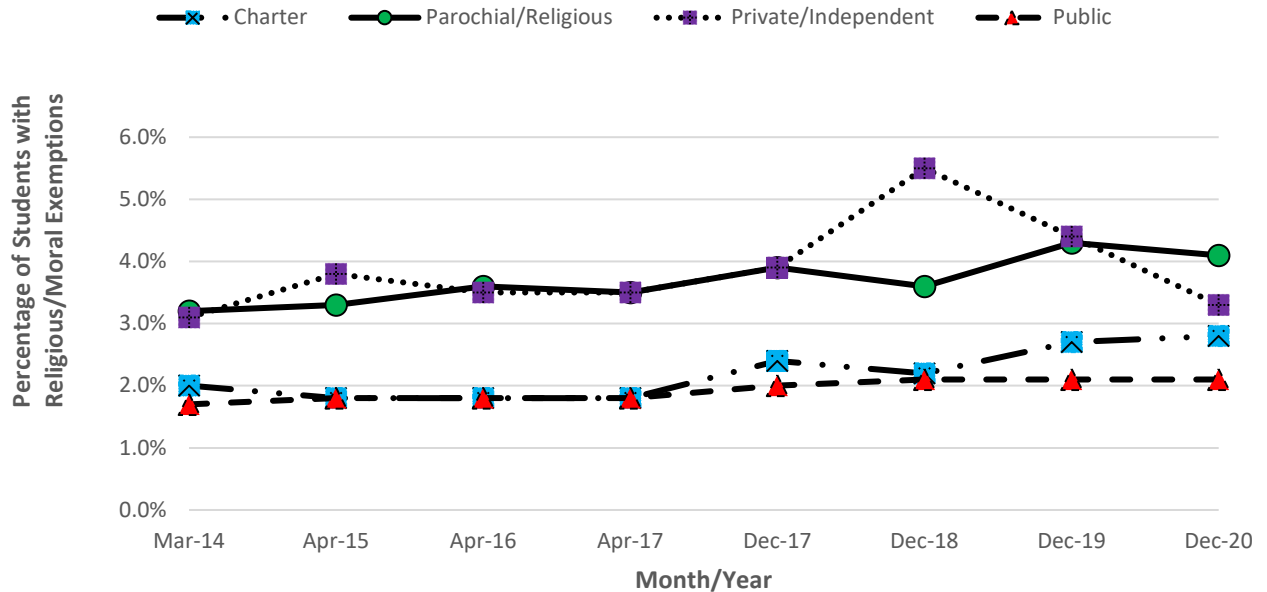
In Allegheny County, 3.0% of students submitted a medical or religious/moral exemption from being fully immunized by December 2020 (Table 6). The percentage of students with medical exemptions was unchanged from 2019-2020 at 0.6%, and moral/philosophical exemptions (1.0%) and religious exemptions (1.4%) were similar to 2019-2020 when they were 1.1% and 1.3%, respectively. Public schools had the lowest percentage of total exemptions (2.7%), and parochial/religious schools had the highest (4.4%).

Table 6. Percentage of Students with Medical, Religious or Moral Exemptions by School Type, Allegheny County, December 2020

School Type	Number of Students Enrolled N	Number of Medical Exemptions N (%)	Number of Religious Exemptions N (%)	Number of Moral Exemptions N (%)
Charter	8,134	39 (0.5)	128 (1.6)	95 (1.2)
Parochial/Religious	11,577	40 (0.3)	328 (2.8)	156 (1.3)
Private/Independent	5,469	56 (1.0)	88 (1.6)	93 (1.7)
Public	131,587	787 (0.6)	1,606 (1.2)	1,246 (0.9)
Total	156,767	922 (0.6)	2,150 (1.4)	1,590 (1.0)

Religious/moral exemptions combined decreased this school year for private/independent and parochial/religious schools and remained steady for public schools. However, there was a slight increase in these exemptions for charter schools compared to last year (Figure 4).

Figure 4. Percentage of Students with Religious/Moral Exemptions by Year, Allegheny County, 2013-14 SY to 2020-21 SY



STUDENTS ENTERING KINDERGARTEN IN ALLEGHENY COUNTY HAD COVERAGE EXCEEDING THE *HEALTHY PEOPLE 2020* GOAL OF **95%** FOR ALL FIVE REQUIRED VACCINES.

Immunization Status by Vaccine

Students entering kindergarten in Allegheny County had coverage exceeding the *Healthy People 2020* goal of 95% for all five required vaccines (Table 7); however, coverage during the 2020-21 school year was slightly lower than coverage the previous year for every type of vaccine).

Table 7. Percentage of Kindergarten Students Immunized by Vaccine Type, Allegheny County, 2014-15 SY through 2020-21 SY

Vaccine	Oct 2014 ¹	Oct 2015 ²	Oct 2016 ²	Dec 2017 ²	Dec 2018 ²	Dec 2019 ²	Dec 2020 ²
MMR (2)	91.4	91.0	92.0	97.6	97.0	97.0	95.3
VZV (2)	90.6	90.5	91.0	97.4	96.9	96.7	95.0
HBV (3)	95.4	94.2	95.4	97.9	97.9	97.3	96.5
Polio (4)	95.6	94.9	95.8	97.3	96.7	96.8	95.1
DTaP (4+)	92.7	93.7	92.6	93.2	97.8	97.3	95.7

¹ Pennsylvania Department of Health's Division of Immunization (2011-2013)

² Allegheny County Health Department (2014-2020)

Two additional vaccines, Tdap and MCV4, are required for students entering 7th grade, and a second dose of MCV4 is required for 12th grade students. Allegheny County exceeded the *Healthy People 2020* goal of 80% for both vaccines for both grades. In the 2020-21 school year, however, there was a decrease in coverage among 7th grade students for Tdap and MCV4 vaccines compared to the 2019-20 school year (Table 8).

Table 8. Percentage of 7th Grade Students Immunized by Vaccine Type, Allegheny County, School Years 2014-15 to 2020-21

Vaccine	Oct 2014 ¹	Oct 2015 ²	Oct 2016 ²	Dec 2017 ²	Dec 2018 ²	Dec 2019 ²	Dec 2020 ²
MCV4 (1)	95.8	92.9	93.5	97.3	96.7	96.9	92.7
Tdap (1)	95.9	93.3	94.1	97.5	96.7	97.0	92.9

¹ Pennsylvania Department of Health's Division of Immunization (2011-2013)

² Allegheny County Health Department (2014-2020)

Allegheny County students entering kindergarten at public and private/independent schools had higher coverage for almost all required vaccines than students enrolled at other types of schools (Table 9). Public schools met the *Healthy People 2020* goal for all vaccines, and private/independent schools met the coverage goal for all vaccines except VZV. Coverage among kindergarten students fell below the *Healthy People 2020* goal of 95% coverage at parochial/religious schools for all vaccines. Similarly, coverage among kindergarten students fell below the 95% coverage goal at charter schools for all vaccines except HBV.

Table 9. Percentage of Kindergarten Students Immunized by School Type and Vaccine, Allegheny County, December 2020

Vaccine	Charter	Parochial/Religious	Private/Independent	Public
MMR (2)	93.1%	92.6%	96.3%	95.6%
VZV (2)	92.9%	92.5%	91.8%	95.5%
HBV (3)	95.4%	93.3%	96.3%	96.9%
Polio (4)	93.3%	91.6%	96.1%	95.5%
DTaP (4+)	94.3%	93.0%	96.5%	96.0%

For 7th grade students, charter, public, and parochial/religious schools in Allegheny County showed higher coverage for both Tdap and MCV4 vaccines than private/independent schools (Table 10). All school types exceeded the *Healthy People 2020* goal of 80%.

Table 10. Percentage of 7th Grade Students Immunized by School Type and Vaccine, Allegheny County, December 2020

Vaccine	Charter	Parochial/Religious	Private/Independent	Public
MCV4 (1)	94.6%	91.7%	85.6%	92.9%
Tdap (1)	94.9%	92.8%	86.3%	93.0%

For 12th grade students, parochial/religious and public schools in Allegheny County had higher coverage than other school types for the second dose of MCV4 (Table 11). While there is no *Healthy People 2020* goal for a second dose of MCV4, all school types exceeded the 80% benchmark used for the first dose of MCV4 except charter schools.

Table 11. Percentage of 12th Grade Students Immunized by School Type and Vaccine, Allegheny County, December 2020

Vaccine	Charter	Parochial/Religious	Private/Independent	Public
MCV4 (2)	78.9%	90.9%	81.8%	90.0%

SUMMARY



SUMMARY

In Allegheny County, overall immunization coverage for the required school vaccinations was 95.6% for the 2020-21 school year, which exceeds our target goal of 95% coverage; however, there has been a slow downward trend from the 2013-14 school year to the present. The decline in coverage may partially reflect more accurate reporting as well as an actual decline in coverage. The slight decrease in overall coverage from 2019-2020 to 2020-2021 was likely due to the impact of the COVID-19 pandemic, which led to a decrease in well-child visits and preventive healthcare, including immunizations.^{1,2}

Overall, 67.8% of all schools in Allegheny County had at least 95% of their students fully immunized. Public schools had the highest percentage of schools (75.2%) with 95% coverage, followed by charter schools (65.0% of schools), private/independent schools (56.8% of schools), and parochial/religious schools (43.4% of schools).

The percentage of students with exemptions remains low in Allegheny County. As in the previous school year, medical exemptions were submitted for only 0.6% of students, and religious/moral exemptions were submitted for 2.4%. Private/independent and parochial/religious schools continue to have the highest percentages of religious and moral exemptions.

The higher percentages of provisional enrollment for kindergarten, 7th, and 12th grade students point to a need to increase immunization efforts before the school year starts, given the likely return of all schools to in-person learning. Schools may need to provide additional information to parents about immunization requirements for students. Overall, provisional enrollments were higher than in most previous school years, and no school type met the goal of zero provisional enrollments by the December deadline for submitting data. Decreasing the number of students provisionally enrolled when they start school is necessary to protect the health of these students and required by county regulations.

Looking towards the future, *Healthy People 2030's* Immunization and Infectious Diseases Workgroup notes that the need to provide culturally appropriate preventive care will grow over the decade.³ Partnerships between community organizations, local governments, and vaccination providers are key to maintaining high vaccination coverage. Monitoring and enforcing school immunization regulations remains a key tool for ensuring high vaccination coverage among children.

¹ Patel B, Murthy , Zell E, et al. Impact of the COVID-19 Pandemic on Administration of Selected Routine Childhood and Adolescent Vaccinations — 10 U.S. Jurisdictions, March–September 2020. *MMWR Morb Mortal Wkly Rep* 2021;70:840–845. DOI: [http://dx.doi.org/10.15585/mmwr.mm7023a2external icon](http://dx.doi.org/10.15585/mmwr.mm7023a2external%20icon).

² Schweiberger K, Patel SY, Mehrotra A, Ray KN. Trends in Pediatric Primary Care Visits During the Coronavirus Disease of 2019 Pandemic. *Academic Pediatrics* 2021. Published May 10, 2021 DOI:<https://doi.org/10.1016/j.acap.2021.04.031>

³ Healthy People 2030. Immunization and Infectious Disease Workgroup.

<https://health.gov/healthypeople/about/workgroups/immunization-and-infectious-diseases-workgroup>