## IMMUNIZATION STATUS OF SCHOOL-AGE CHILDREN IN ILLINOIS FOR SCHOOL YEAR 2011-2012

# ILLINOIS STATE BOARD OF EDUCATION DATA ANALYSIS AND PROGRESS REPORTING DIVISION

**JULY 2012** 

Gery J. Chico, Chairman State Board of Education Christopher A. Koch, Ed.D. State Superintendent of Education

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#### **FOREWORD**

Immunization data are collected annually from Illinois public and nonpublic schools. This report is a compilation of data on the immunization status of school-age children in Illinois for school year 2011-2012. The interpretations and conclusions expressed herein are based on the available data and do not necessarily reflect the official position or policy of the Illinois State Board of Education (ISBE). Inquiries regarding this report may be directed to Dr. Marjurie Ribeiro in the ISBE Data Analysis and Progress Reporting Division at 217/782-3950.

#### **BACKGROUND**

As mandated by Section 27-8.1 of the Illinois School Code [105 ILCS 5/27-8.1], all Illinois children must comply with immunization and health examination requirements established by the Illinois Department of Public Health. In addition, the Illinois School Code requires all public and nonpublic schools to submit annually to ISBE completed surveys summarizing the compliance status of enrolled students as of October 15, or as of an earlier date established by the public school district or nonpublic school. This report summarizes the statewide immunization and health examination compliance data.

#### **MAJOR FINDINGS**

The 2011-2012 immunization status of school-age children, as reported by Illinois schools, reveals the following facts and figures:

- The compliance level of all students in all reported schools is 97.20%.
- The compliance level of public school students in all reported schools is 97.06%.
- The compliance level of nonpublic school students in all reported schools is 98.39%.
- The data by specific disease category based on the percent of total reported students reveal that no more than 1.32% of reported Illinois students were unprotected and in noncompliance in any of the eight disease categories [polio, DTP/DTaP/Td, measles, rubella, mumps, varicella/chickenpox, hepatitis B, and haemophilus influenzae type b (Hib)]. However, varicella/chickenpox, hepatitis B, and Hib percentages are calculated based on the number of children *required to be immunized*. For varicella/chickenpox, 0.82% of the required prekindergarten (preK) through grade 9 students were unprotected and in noncompliance. For hepatitis B, 0.95% of the required preK and grades 5 through 12 children were unprotected and not in compliance. For Hib, 0.62% of the required preschool children were unprotected and not in compliance.
- A statewide total of 64,094 reported students (2.80% of the total reported student enrollment of 2,286,239) were not in compliance with immunization and/or health examination mandates as of October 15, or as of an earlier date established by the public district or nonpublic school. Of this number, 41,013 children were not in compliance with immunization requirements in at least one disease category, while 23,081 were not in compliance with the health examination requirement only.
- Of the 4,330 public schools required to submit data, 232 (5.36%) did not submit.
- There were 345 public schools (7.97%) that had compliance levels of less than 90%.
- Of the 1,620 nonpublic schools required to submit data, 64 (3.95%) did not submit.
- There were 71 nonpublic schools (4.39%) that had compliance levels of less than 90%.

#### **PROCEDURE**

Data collection instruments and procedures used to collect immunization and health examination data were developed by ISBE staff in consultation with staff from the Illinois Department of Public Health. The 2011-2012 data collection was conducted using an online system.

School administrators were required to provide information on the total number of children enrolled, the total number of children in compliance, and the total number of children not in compliance for each of the eight disease categories, by grade level. The online immunization survey must be completed annually by November 15.

#### **RESULTS**

#### **Compliance Data**

Compliance and protection levels for students were calculated based on the information provided by Illinois school officials. Data reported by school officials show overall compliance with the requirements of the student health mandates for both immunizations and health examinations. Students not in compliance are required to be excluded from school until their health examination and immunization records are in compliance with state law. Protection levels refer only to immunizations and denote the reported immunity against specific communicable diseases.

Students were identified as being in compliance with state law if they presented proof of immunizations and/or health examinations, had exemptions for religious or medical reasons on file with the local school authority, or were on an approved schedule for completion of immunizations in a series.

#### Statewide Compliance

Table 1 in the Appendix (page 6) presents the 2011-2012 compliance levels for all reported school-age children in Illinois. The compliance level of 2,286,239 reported public and nonpublic school children in Illinois is 97.20%. The data show 64,094 children (2.80% of the total student enrollment) were not in compliance with immunization and/or health examination mandates. Of this number, 41,013 (1.79% of the total student enrollment) children were not in compliance with immunization requirements in at least one disease category, while 23,081 (1.01% of the total student enrollment) children were not in compliance with the health examination requirement only. As of October 15, or as of an earlier date established by a public school district or nonpublic school, 8,889 children were excluded from Illinois schools. The number of exclusions continues to be significantly lower than the actual number of children not in compliance. Part of this can be attributed to transfer students without records. Transfer students cannot be excluded from school, but they must be reported noncompliant, because records were not available to document immunization status.

#### Public School Compliance

For Illinois public schools, the compliance level for the total 2,051,793 reported children is 97.06%. (See Appendix, Table 1, page 6). Of the 60,318 public school children not in compliance, 38,130 children were not compliant in one or more disease categories, while 22,188 were not in compliance with the health examination requirement only. The number of students excluded from school as of October 15, or as of an earlier date established by a school district, was 8,633.

Of the 4,330 public schools required to submit data, 345 had compliance levels of less than 90%. There were 232 public schools that did not submit data. Illinois law does not require compliance levels of 90% or greater for individual schools within public school districts.

#### Nonpublic School Compliance

For Illinois nonpublic schools, the compliance level for the total 234,446 reported children is 98.39%. (See Appendix, Table 2, page 6). Of the 3,776 nonpublic children not in compliance, 2,883 children were not in compliance with immunization requirements in at least one disease category, while 893 children were not in compliance with the health examination requirement only. The number of students excluded from school as of October 15, or as of an earlier date established by a nonpublic school, was 256.

Of the 1,620 nonpublic schools required to submit data, 71 had compliance levels of less than 90%. There were 64 nonpublic schools that did not submit data.

#### **Protection Levels Data**

In order to be counted as fully protected, a student must present proof that the immunization series has been completed and/or present verification of immunity. The Illinois Department of Public Health has determined that a 90% protection level against each disease is recommended in order to prevent epidemics.

#### Statewide Protection

Table 2 in the Appendix (page 7) displays the numbers and protection level percentages of all reported students who are fully protected against the diseases of polio, DTP/DTaP/Td, measles, rubella, mumps, varicella/chickenpox, hepatitis B, and Hib. Varicella/chickenpox, Hepatitis B, and Hib protection-level percentages are determined based on the actual number of children required to be immunized. Hepatitis B is required for children in preK and grades 5 through 12. Hib is required only for children between 15-59 months of age entering a school program below the kindergarten level (all preK students). Varicella/chickenpox was required for all students entering preK through grade 9 for the 2011-2012 school year.

The 2011-2012 protection level percentages of all reported students are 98.28% for polio; 97.83% for DTB/DTaP/Td; 98.23% for measles; 98.63% for rubella; and 98.63% for mumps. The reported levels of protection for varicella/chickenpox, hepatitis B, and Hib are 98.40%, 98.30%, and 99.02%, respectively, based upon the actual number of children required to be immunized.

The percentage of all reported students who are unprotected and not in compliance with immunization requirements is 1.32% or less across all eight disease categories. The reported percentages of students unprotected and not in compliance are 0.82% for varicella/chickenpox, 0.95% for hepatitis B, and 0.62% for Hib.

#### Public School Protection

As reported in Table 3 in the Appendix (page 8), the levels of protection for public school students by disease category are 98.37% for polio; 97.87% for DTP/DTaP/Td; 98.32% for measles; 98.76% for rubella; and 98.76% for mumps. The reported levels of protection for varicella/chickenpox, hepatitis B, and Hib are 98.56%, 98.38%, and 99.25%, respectively, based upon the actual number of children required to be immunized.

The percentage of all reported public school students who are unprotected and not in compliance with immunization requirements is 1.37% or less across all eight disease categories. The reported percentages of students unprotected and not in compliance are 0.81% for varicella/chickenpox, 0.97% for hepatitis B, and 0.56% for Hib.

#### Nonpublic School Protection

As reported in Table 4 in the Appendix (page 9), the levels of protection for nonpublic school students by disease category are 97.52% for polio; 97.45% for DTP/DTaP/Td; 97.43% for measles; 97.53% for rubella; and 97.53% for mumps. The reported levels of protection for varicella/chickenpox, hepatitis B, and Hib are 97.04%, 97.48%, and 96.04% respectively, based upon the actual number of children required to be immunized.

The percentage of all reported public school students who are unprotected and not in compliance with immunization requirements is 1.42% or less across all eight disease categories. The reported percentages of students unprotected and not in compliance are 0.86% for varicella/chickenpox, 0.82% for hepatitis B, and 1.42% for Hib.

#### **APPENDIX**

Table 1 2011-2012 Student Enrollment and Compliance Summary of Reported Educational Facilities

Compliance Status	Public School	ols <sup>1</sup>	Nonpublic Sc	<u>hools</u>	All School	<u>ls</u>
Compilative Status	Number of Students	Percent	Number of Students	Percent	Number of Students	Percent
Students in Compliance as of October 15, 2011	1,991,475	97.06	230,670	98.39	2,222,145	97.20
Students not in compliance	60,318	2.94	3,776	1.61	64,094	2.80
Immunization requirements	38,130	1.86	2,883	1.23	41,013	1.79
Health examination only	22,188	1.08	893	0.38	23,081	1.01
Students excluded from school as of October 15, or as of an earlier data established by the district or nonpublic school.	8,633	0.42	256	0.11	8,889	0.39
All Students	2,051,793	100.00	234,446	100.00	2,286,239	100.00

<sup>&</sup>lt;sup>1</sup>Two of 631 City of Chicago School District 299 public schools were omitted from this analysis due to disparate totals reported for required immunizations at a grade.

Table 2 2011-2012 Immunization Status for all Reported Illinois <u>Public</u> and <u>Nonpublic</u> School Statistics, by Disease Category

Immunization	<u>Polio</u>		DTP/DTaP/Td		<u>Measles</u>		<u>Rubella</u>		<u>Mumps</u>		<u>Varicella/Chickenpox</u> <u>PreK-Grade 9</u>		<u>Hepatitis B</u> <u>PreK &amp;</u> Grades 5-12		<u>Hi</u> <u>Pre</u>	
Status	Number		Number		Number		Number									
	of Students	% of Total <sup>2</sup>	of Students	% of Total <sup>2</sup>	of Students	% of Total <sup>2</sup>	of Students	% of Total <sup>2</sup>								
Protected and in compliance	2,246,992	98.28	2,236,582	97.83	2,245,786	98.23	2,254,963	98.63	2,255,031	98.63	1,845,492	98.40	1,577,601	98.30	485,571	99.02
Religious objection	10,297	0.45	10,653	0.47	10,683	0.47	9,967	0.43	9,962	0.43	8,384	0.45	5,757	0.36	656	0.13
Medical reasons	2,260	0.10	2,754	0.12	3,882	0.17	2,359	0.10	2,357	0.10	2,711	0.14	2,820	0.17	198	0.04
Approved schedule	5,072	0.22	6,032	0.26	4,761	0.21	3,942	0.17	3,391	0.17	3,498	0.19	3,380	0.21	887	0.18
Unprotected and in noncompliance	21,618	0.95	30,218	1.32	21,127	0.92	15,008	0.66	14,958	0.65	15,318	0.82	15,311	0.95	3,052	0.62
Total	2,286,239	100.00	2,286,239	100.00	2,286,239	100.00	2,286,239	100.00	2,286,239	100.00	1,875,403	100.00	1,604,869	100.00	490,364	100.00

<sup>&</sup>lt;sup>1</sup>Two of 631 City of Chicago School District 299 public schools were omitted from this analysis due to disparate totals reported for required immunizations at a grade.

<sup>&</sup>lt;sup>2</sup> Percentages may not equal 100 due to rounding.

Table 3 2011-2012 Immunization Status for all Reported Illinois <u>Public</u><sup>1</sup> School Statistics, by Disease Category

Immunization	<u>Polio</u>		DTP/DTaP/Td		<u>Measles</u>		Rubella		<u>Mumps</u>		Varicella/Chickenpox PreK-Grade 9		<u>Hepatitis B</u> <u>PreK &amp;</u> Grades 5-12		<u>Hi</u> <u>Pre</u>	
Status	Number		Number		Number		Number		Number		Number		Number		Number	
	of	% of	of	% of	of	% of	of	% of	of	% of	of	% of	of	% of	of	% of
	Students	Total <sup>2</sup>	Students	Total <sup>2</sup>	Students	Total <sup>2</sup>	Students	Total <sup>2</sup>	Students	Total <sup>2</sup>	Students	Total <sup>2</sup>	Students	Total <sup>2</sup>	Students	Total <sup>2</sup>
Protected and in compliance	2,018,359	98.37	2,008,109	97.87	2,017,365	98.32	2,026,300	98.76	2,026,373	98.76	1,657,589	98.56	1,429,989	98.39	451,932	99.25
Religious objection	8,260	0.40	8,607	0.42	8,541	0.42	7,874	0.38	7,868	0.38	6,412	0.38	4,531	0.31	323	0.07
Medical reasons	1,885	0.09	2,403	0.12	3,407	0.17	1,904	0.09	1,889	0.09	2,063	0.12	2,536	0.17	87	0.02
Approved schedule	3,514	0.17	4,444	0.22	3,180	0.15	2,426	0.12	2,414	0.12	2,043	0.12	2,315	0.16	441	0.10
Unprotected and in noncompliance	19,775	0.96	28,230	1.37	19,300	0.94	13,289	0.65	13,249	0.64	13,660	0.81	14,069	0.97	2,555	0.56
Total	2,051,793	100.00	2,051,793	100.00	2,051,793	100.00	2,051,793	100.00	2,051,793	100.00	1,681,767	100.00	1,453,440	100.00	455,338	100.00

<sup>&</sup>lt;sup>1</sup>Two of 631 City of Chicago School District 299 public schools were omitted from this analysis due to disparate totals reported for required immunizations at a grade.

<sup>&</sup>lt;sup>2</sup>Percentages may not equal 100 due to rounding.

Table 4 2011-2012 Immunization Status for all Reported Illinois Nonpublic School Statistics, by Disease Category

Immunization Status	<u>Polio</u>		DTP/DTaP/Td		Measles		Rubella		<u>Mumps</u>		Varicella/Chickenpox PreK-Grade 9		<u>Hepatitis B</u> <u>PreK &amp;</u> Grades 5-12		<u>Hib</u> <u>PreK</u>	
	Number of Students	% of Total <sup>1</sup>	Number of Students	% of Total <sup>1</sup>	Number of Students	% of Total <sup>1</sup>	Number of Students	% of Total <sup>1</sup>								
Protected and in compliance	228,633	97.52	228,473	97.45	228,421	97.43	228,663	97.53	228,658	97.53	187,903	97.04	147,612	97.48	33,639	96.04
Religious objection	2,037	0.87	2,046	0.87	2,142	0.91	2,093	0.89	2,094	0.89	1,972	1.02	1,226	0.81	333	0.95
Medical reasons	375	0.16	351	0.15	475	0.20	455	0.19	468	0.20	648	0.33	284	0.19	111	0.32
Approved schedule	1,558	0.66	1,588	0.68	1,581	0.67	1,516	0.65	1,517	0.65	1,455	0.75	1,065	0.70	446	1.27
Unprotected and in noncompliance	1,843	0.79	1,988	0.85	1,827	0.78	1,719	0.73	1,709	0.73	1,658	0.86	1,242	0.82	497	1.42
Total	234,446	100.00	234,446	100.00	234,446	100.00	234,446	100.00	234,446	100.00	193,636	100.00	151,429	100.00	36,026	100.00

<sup>&</sup>lt;sup>1</sup>Percentages may not equal 100 due to rounding.