# THE IMMUNIZATION STATUS OF SCHOOL-AGE CHILDREN IN ILLINOIS FOR THE SCHOOL YEAR 2007-2008

# ILLINOIS STATE BOARD OF EDUCATION Data Analysis and Progress Reporting Division March 2008

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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 2007-2008. This report was prepared by Md. Shafiqul Azam, Data Analysis and Progress Reporting Division. However, this report does not account for Prekindergarten data from Converted SIM Schools of City of Chicago Public School District 299. 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. Direct inquiries regarding this report to Mr. Azam at 217/782-3950.

# BACKGROUND

As mandated by Section 27-8.1 (105 ILCS 5/27-8.1) of the <u>School Code</u>, all children must comply with immunization and health examination requirements established by the Illinois Department of Public Health. In addition, the <u>School Code</u> requires all public and nonpublic schools to submit completed surveys to the Illinois State Board of Education summarizing the compliance status of all children as of October 15, or an earlier exclusion date established by the public school district or nonpublic school. This report summarizes the statewide immunization and health examination compliance data.

#### **MAJOR FINDINGS**

The 2007-2008 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 97.70 percent.
- The compliance level of public school students in all reported schools is 97.59 percent.
- The compliance level of nonpublic school students in all reported schools is 98.62 percent.
- The data by specific disease category, based on the percentage of total reported students, reveal that no more than 1.27 percent of reported Illinois students are unprotected and not in compliance in any of the eight disease categories (polio, DTP/DTaP/Td, measles, rubella, mumps, varicella/chickenpox, hepatitis B, and Haemophilus influenza 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, 1.27 percent of the required preK through Grade 5 students are unprotected and not in compliance. For hepatitis B, 0.68 percent of the required preK and Grades 5-12 children are unprotected and not in compliance. For Hib, 1.11 percent of the required preschool children are unprotected and in noncompliance.
- Statewide, a total of 53,291 students (2.30 percent of the total reported student enrollment of 2,318,138), are not in compliance with immunization and/or health examination mandates as of October 15, 2007, or as of an earlier exclusion date established by the public school district or nonpublic school. Of this number, 33,859 children are not in compliance with immunization requirements in at least one disease category, while 19,432 are not in compliance with the health examination requirement only.
- Of the submitted public school districts, only one has a compliance level of less than 90 percent.
- None of the schools from five public school districts submitted data. These school districts fall into the category of small districts.
- Not all schools from seven public school districts submitted data. These school districts fall into the category of small districts.
- Of the 1,080 reported nonpublic schools, 26 (2.41 percent) have compliance levels of less than 90 percent.

# **PROCEDURE**

Data collection instruments and procedures used to collect immunization and health examination data were developed by staff of the Illinois State Board of Education in consultation with staff from the Illinois Department of Public Health. Data collection of the Immunization School Survey was conducted using an online system.

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

#### Statewide Compliance

Table 1 presents the 2007-2008 compliance levels for all reported school-age children in Illinois. The compliance level for the total 2,318,138 reported public and nonpublic school children in Illinois is 97.70 percent. The data show that 53,291 children (2.30 percent of the total student enrollments) are not in compliance with immunization and/or health examination mandates. Of this number, 33,859 (1.46 percent) children are not in compliance with immunization requirements in at least one disease category, while 19,432 (0.84 percent) are in noncompliance with the health examination requirement only. As of October 15, 2007, or as of an earlier exclusion date established by the public school district or nonpublic school, 9,360 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 may be attributed to transfer students without records. Transfer students cannot be excluded from school, but they must be reported as not being in compliance because records are not available to document immunization status.

#### Public School District Compliance

For Illinois public school districts, the compliance level for the total 2,072,830 reported children is 97.59 percent (see Table 1). Of the 49,909 public school children not in compliance, 31,661 are not compliant in one or more disease categories, while 18,248 are not in compliance with the health examination requirement only. The number of students excluded from school on October 15, 2007, or on an earlier exclusion date established by the school district, was 8,903.

Only one public school district failed to comply. However, five public school districts did not submit data and seven public school districts submitted partial data (not all schools in the district submitted data). Illinois law does not specify compliance levels for individual schools within public school districts.

## Nonpublic School Compliance

Of the 1,080 nonpublic schools that submitted immunization data, 26 (2.41 percent) failed to meet the recommended 90 percent compliance level.

Of the 3,382 nonpublic school children reported to be not in compliance, 2,198 are not in compliance with immunization requirements in at least one disease category, while 1,184 are not in compliance with the health examination requirement only. The number of students excluded from school on October 15, 2007, or on an earlier exclusion date established by the nonpublic school, was 457.

#### **Protection Levels**

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 percent protection level against each disease is recommended in order to prevent epidemics.

#### Statewide Protection

Table 2 presents 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 a requirement for children entering a program below the kindergarten level and all children entering Grade 5 in 1997-1998 (all preK and Grades 5-12 children in 2007-2008). Hib is required only for children under 59 months of age entering a school program below the kindergarten level (all preK). Varicella/chickenpox is required for all students entering prekindergarten through Grade 5 for 2007-2008.

The 2007-2008 protection-level percentages of all reported students are 98.09 percent for polio, 97.49 percent for DTP/DTaP/Td, 98.20 percent for measles, 98.44 percent for rubella, and 98.44 percent for mumps. The reported levels of protection for varicella/chickenpox, hepatitis B, and Hib, based on the actual number of children *required to be immunized*, are 97.67 percent, 98.30 percent, and 97.72 percent, respectively.

The percentage of all reported students who are unprotected and not in compliance with immunization requirements is 1.27 precent or less across all eight disease categories. The reported percentages of students unprotected and not in compliance, based on the actual number of children required to be immunized, are 1.27 percent for varicella/chickenpox, 0.68 percent for hepatitis B, and 1.11 percent for Hib.

#### **Public School Protection**

As reported in Table 3, the levels of protection for public school students, by disease category, are 98.07 percent for polio, 97.41 percent for DTP/DTaP/Td, 98.21 percent for measles, 98.47 percent for rubella, and 98.47 percent for mumps. The reported levels of protection for varicella/chickenpox, hepatitis B, and Hib, based on the actual number of children *required to be immunized*, are 97.72 percent, 98.33 percent, and 98.15 percent, respectively.

The percentage of all reported public school students who are unprotected and not in compliance with immunization requirements is 1.35 percent or less across all eight disease categories. The reported percentages of students unprotected and not in compliance, based on the actual number of children *required to be immunized*, are 1.34 percent for varicella/chickenpox, 0.68 percent for hepatitis B, and 1.06 percent for Hib.

#### Nonpublic School Protection

The levels of protection for nonpublic school students, by disease category, as reported in Table 4, are 98.26 percent for polio, 98.15 percent for DTP/DTaP/Td, 98.11 percent for measles, 98.18 percent for rubella, and 98.19 percent for mumps. The reported levels of protection for varicella/chickenpox, hepatitis B, and Hib, based on the actual number of children *required to be immunized*, are 97.33 percent, 97.98 percent, and 96.93 percent, respectively.

The percentage of nonpublic school students who are unprotected and not in compliance with immunization requirements is 1.21 percent or less across all eight disease categories. The reported percentages of students unprotected and not in compliance, based on the actual number of children *required to be immunized*, are 0.79 percent for varicella/chickenpox, 0.68 precent for hepatitis B, and 1.21 percent for Hib.

Table 1. 2007-2008 Student Enrollment and Compliance Summary of Reported Educational Facilities

Compliance Status	Public S	chools	Nonpublic	Schools	All Schools	
	Number of Students	Percent	Number of Students	Percent	Number of Students	Percent
Students in compliance as of October 15, 2007	2,022,921	97.59	241,926	98.62	2,264,847	97.70
Students not in compliance with:						
Immunization requirements	31,661	1.53	2,198	0.90	33,859	1.46
Health examination only	18,248	0.88	1,184	0.48	19,432	0.84
All students	2,072,830	100.00	245,308	100.00	2,318,138	100.00
Number of students excluded from school as of October 15, 2007, or as of an earlier exclusion date established by the district or nonpublic school.	8,903		457		9,360	

Table 2. 2007-2008 Immunization Status for All Reported Illinois Public and Nonpublic School Students, by Disease Category

Immunization Status	n Polio		DTP/DTaP/Td		Measles		Rubella		Mumps		Varicella/Chicken Pox		Hepatitis B		Hib	
										(PreK-Grade 5)		(PreK & Grades 5-12)		(PreK only)		
		% of Total Enrollment		% of Total Enrollment		% of Total Enrollment	Number of Students	% of Total Enrollment		% of Total Enrollment	students need to be	% protected of those required to be immunized	Number of students need to be immunized	% protected of those required to be immunized		% protected of those required to be immunized
Protected and in compliance	2,273,847	7 98.09	2,259,896	97.49	2,276,421	98.20	2,281,940	98.44	2,282,034	1 98.44	1,080,876	97.67	1,442,620	98.30	84,912	97.72
Religious objection	6,683	3 0.29	6,972	0.30	6,942	0.30	6,582	0.28	6,569	0.28	4,085	0.37	4,083	0.28	365	0.42
Medical reasons	6,218	3 0.27	6,676	0.29	6,900	0.30	6,474	0.28	6,464	1 0.28	3,430	0.31	4,637	0.32	89	0.10
Approved schedule	7,086	5 0.31	15,092	0.65	4,933	0.21	3,233	0.14	3,236	5 0.14	4,230	0.38	6,265	0.43	557	0.64
Unprotected and in noncompliance	24,304	1.05	29,502	1.27	22,942	0.99	19,909	0.86	19,835	5 0.86	14,050	1.27	10,005	0.68	968	1.11
Total Enrollment	2,318,138	3 100.00	2,318,138	100.00	2,318,138	100.00	2,318,138	100.00	2,318,138	3 100.00	1,106,671	100.00	1,467,610	100.00	86,891	100.00

Table 3. 2007-2008 Immunization Status for All Reported Illinois <u>Public</u> School Students, by Disease Category

Immunization Status	on Polio		DTP/DTaP/Td		Measles		Rubella		Mumps		Varicella/Chicken Pox		Hepatitis B		Hib	
												Grade 5)	(PreK & Grades 5-12)		(PreK only)	
	Number of Students	% of Total Enrollment	Number of Students	% of Total Enrollment		% of Total Enrollment	Number of Students	% of Total Enrollment		% of Total Enrollment	students need to be	% protected of those required to be immunized	Number of students need to be immunized	% protected of those required to be immunized		% protected of those required to be immunized
Protected and in compliance	2,032,799	98.07	2,019,136	97.41	2,035,754	98.21	2,041,087	98.47	2,041,167	98.47	946,530	97.72	1,290,745	98.33	55,186	98.15
Religious objection	5,253	3 0.25	5,515	0.27	5,437	0.26	5,094	0.25	5,091	0.25	2,988	0.31	3,161	0.24	145	0.26
Medical reasons	5,923	3 0.29	6,360	0.31	6,522	0.31	6,087	0.29	6,084	0.29	2,887	0.30	4,344	0.33	34	0.06
Approved schedule	5,912	2 0.29	13,792	0.67	3,657	0.18	2,027	0.10	2,027	0.10	3,268	0.34	5,403	0.41	262	0.47
Unprotected and in noncompliance	22,943	3 1.11	28,027	1.35	21,460	1.04	18,535	0.89	18,461	0.89	12,966	1.34	8,953	0.68	598	1.06
Total Enrollment	2,072,830	100.00	2,072,830	100.00	2,072,830	100.00	2,072,830	100.00	2,072,830	100.00	968,639	100.00	1,312,606	100.00	56,225	100.00

Table 4. 2007-2008 Immunization Status for All Reported Illinois Nonpublic School Students, by Disease Category

Immunization Status	n Polio		DTP/DTaP/Td		Measles		Rubella		Mumps		Varicella/Chicken Pox		Hepatitis B		Hib	
												Grade 5)	(PreK & Grades 5-12)		(PreK only)	
	Number of Students	% of Total Enrollment	Number of Students	% of Total Enrollment		% of Total Enrollment	Number of Students	% of Total Enrollment		% of Total Enrollment	students need to be	% protected of those required to be immunized		% protected of those required to be immunized		% protected of those required to be immunized
Protected and in compliance	241,048	98.26	240,760	98.15	240,667	98.11	240,853	98.18	240,867	7 98.19	134,346	97.33	151,875	97.98	29,726	96.93
Religious objection	1,430	0.58	1,457	0.59	1,505	0.61	1,488	0.61	1,478	3 0.60	1,097	0.79	922	0.59	220	0.72
Medical reasons	295	0.12	316	0.13	378	0.15	387	0.16	380	0.15	543	0.39	293	0.19	55	0.18
Approved schedule	1,174	0.48	1,300	0.53	1,276	0.52	1,206	0.49	1,209	0.49	962	0.70	862	0.56	295	0.96
Unprotected and in noncompliance	1,361	0.55	1,475	0.60	1,482	0.60	1,374	0.56	1,374	4 0.56	1,084	0.79	1,052	0.68	370	1.21
Total Enrollment	245,308	3 100.00	245,308	100.00	245,308	100.00	245,308	100.00	245,308	3 100.00	138,032	100.00	155,004	100.00	30,666	100.00