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**New York State Office of the State Comptroller**  
Thomas P. DiNapoli

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Division of State Government Accountability

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# Oversight of Student Immunization in Schools

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**Department of Health**  
**State Education Department**

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Report 2015-S-85

August 2016

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## Executive Summary

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### Purpose

To determine if the Department of Health (DOH) and the State Education Department (SED) are following the State's public health procedures to ensure New York's schools are adequately preventing, and are prepared to respond to, outbreaks of vaccine-preventable disease. Our audit focuses on schools outside New York City and covers the period September 1, 2013 to March 31, 2016.

### Background

SED provides guidelines to assist schools in developing policies to prevent and prepare for outbreaks of serious communicable diseases. The guidelines are available on SED's website and include updated immunization requirements, customizable sample health forms, and guidance on granting religious and medical immunization exemptions, with links to the applicable laws and regulations. Additional resources can be located online at SED's technical assistance center. Schools are authorized to grant or deny individual immunization waivers requested by parents or guardians for religious or medical reasons. Pursuant to the State Education Law, SED is responsible for hearing appeals related to exemptions that are denied at the local level. DOH's mission is to protect, improve, and promote the health, productivity, and well-being of all New Yorkers. Its Bureau of Immunization collects vaccination information for schoolchildren via an online survey (Survey), which all schools complete annually. Survey data is reported by school year, covering September through June.

Healthy People 2020 is an initiative led by a group of federal agencies that provides science-based, 10-year objectives for improving the health of all Americans. New York State has adopted its recommended 95 percent target rate of childhood immunization to achieve what the initiative terms "herd immunity." For the 2014-15 school year, 4,041 schools outside New York City completed the Survey, accounting for more than 1.8 million students. Their overall reported rate of complete immunization (CI) was 97 percent.

DOH carries out the enforcement and monitoring of immunizations in schools across the State and performs between 100 and 150 audits per year to validate Survey data reported by schools. These audits generally include those schools with CI rates below 90 percent, along with other locations selected at random. For 2014-15, data showed 456 schools outside New York City had CI rates below 90 percent.

### Key Findings

- DOH and SED have both provided appropriate assistance to schools to guide their immunization programs. Overall, these agencies also have appropriate controls in place to ensure schools are adequately preventing, and are prepared to respond to, outbreaks of vaccine-preventable diseases.
- Immunization rates across the State are generally above standards established to limit the risk of a serious outbreak. However, our analysis of the Survey data found schools in some counties have high exemption rates, most notably Yates and Montgomery counties, where 5 to 10

percent of the students were granted exemptions by the schools. The higher exemption rates put schools in Montgomery County (at 89 percent) and Yates County (at 86 percent) well below the 95 percent target rate for childhood immunization coverage. Also, schools in four other counties (Allegany, Columbia, Rockland, and Ulster) had immunization rates of 94 percent, just short of the 95 percent target.

- Our analysis of Survey data shows there are pockets of at-risk populations that are more likely to have low immunization rates. This is particularly evident at private schools and schools with proportionally larger international and migrant student populations. Through better use of data, the agencies may be able to better target their on-site efforts to further improve immunization rates and reduce overall risk to students.

### **Key Recommendation to DOH**

- Use additional risk factors, such as those detailed in this report, to identify higher-risk schools and better target audit and technical assistance efforts.

### **Other Related Audit/Report of Interest**

[Department of Health: Nursing Home Surveillance \(2015-S-26\)](#)

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**State of New York  
Office of the State Comptroller**

**Division of State Government Accountability**

August 16, 2016

Howard Zucker, M.D., J.D.  
Commissioner  
Department of Health  
Corning Tower  
Empire State Plaza  
Albany, NY 12234

Ms. MaryEllen Elia  
Commissioner  
State Education Department  
89 Washington Avenue  
Albany, NY 12237

Dear Dr. Zucker and Commissioner Elia:

The Office of the State Comptroller is committed to helping State agencies, public authorities, and local government agencies manage government resources efficiently and effectively and, by so doing, providing accountability for tax dollars spent to support government operations. The Comptroller oversees the fiscal affairs of State agencies, public authorities, and local government agencies, as well as their compliance with relevant statutes and their observance of good business practices. This fiscal oversight is accomplished, in part, through our audits, which identify opportunities for improving operations. Audits can also identify strategies for reducing costs and strengthening controls that are intended to safeguard assets.

Following is a report of our audit of the Department of Health and the State Education Department entitled *Oversight of Student Immunization in Schools*. The audit was performed pursuant to the State Comptroller's authority under Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

This audit's results and recommendations are resources for you to use in effectively managing your operations and in meeting the expectations of taxpayers. If you have any questions about this report, please feel free to contact us.

Respectfully submitted,

*Office of the State Comptroller  
Division of State Government Accountability*

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This report is also available on our website at: [www.osc.state.ny.us](http://www.osc.state.ny.us)

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## Background

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The State Education Department (SED) provides guidelines to assist schools in developing policies to prevent and prepare for outbreaks of serious communicable diseases. The guidelines are available on SED's website and include updated immunization requirements, customizable sample health forms, and guidance on granting religious and medical immunization exemptions, with links to applicable laws and regulations (including the Health Insurance Portability and Accountability Act [HIPAA] and the Family Education Rights and Privacy Act [FERPA]). Additional resources can be located online at SED's technical assistance center.

State Education Law directs schools to maintain immunization records for all students, comply with annual immunization surveys conducted by the Department of Health (DOH), and notify local public health agencies in the event of a reportable communicable disease outbreak. Also, pursuant to the Education Law, SED is responsible for hearing appeals related to denial of religious and medical exemptions by local schools. In the two years of data we reviewed, there were 11 appeals in schools outside New York City. All of the schools' decisions to deny the exemptions were upheld. SED directs schools to comply with DOH, which carries out the enforcement and monitoring of immunizations in schools across the State.

DOH's mission is to protect, improve, and promote the health, productivity, and well-being of all New Yorkers. Its Bureau of Immunization (Bureau) is charged with reducing illnesses, complications, and deaths from vaccine-preventable diseases in New Yorkers of all ages. The Bureau's goals include ensuring that students are protected against vaccine-preventable diseases and that the public has up-to-date information on immunization recommendations as well as accurate answers to vaccine questions.

DOH also requires schools to maintain lists of exempt and noncompliant students (also referred to as "susceptible" students). Exempt students are those whose parents or guardians have requested an immunization waiver, which has been approved by the school to receive a medical or religious exemption. Noncompliant students are those who do not have an exemption and have not received the required vaccinations. Some students may be allowed to remain in school if they are in process of receiving mandated immunizations. Also, in the case of a new enrollee, a student may remain in school during an authorized grace period. Additionally, Education Law Section 914 requires all schools to have an immunization policy in place detailing the manner in which immunization activities are coordinated among the local health authority and school districts and require proof of immunizations for enrolled and attending students.

Healthy People 2020 is an initiative led by a group of federal agencies that provides science-based, 10-year objectives for improving the health of all Americans. According to this initiative, the vaccine coverage rate needed to achieve "herd immunity" for each disease can vary by vaccine. Still, Healthy People 2020 sets target rates for childhood immunization coverage at 95 percent.

DOH collects vaccination information for schoolchildren via an online survey (Survey), which it requires all schools to complete and submit annually. Survey data is reported by school year,

covering September through June. If schools do not complete the Survey, the Department attempts to contact them through letters and phone calls. If this fails, legal action, including fines, are imposed on noncompliant schools. For the 2014-15 school year, 4,041 schools outside New York City submitted Survey data, accounting for more than 1.8 million students. The reported complete immunization (CI) rate across all these schools was 97 percent, which was slightly lower than the 98 percent CI rate from the previous year. CI rates are not adjusted to reflect exemptions. DOH makes immunization data available to the public on its website. For reported statewide school immunization rates by county, see Appendix A.

DOH also performs approximately 100 to 150 audits per year to validate Survey data reported by the schools. Each audit includes the review of at least 100 students' immunization records, the school's written immunization policy (if applicable), and each school's listing of susceptible students, which documents those students who are susceptible to vaccine-preventable diseases so they may be rapidly identified in the event of an outbreak. Generally, DOH audits schools with CI rates less than 90 percent, but also selects other schools at random. For 2014-15, Survey data showed 456 schools outside New York City had CI rates below 90 percent. For the two school years in our scope period, DOH's regional staff performed 214 audits.

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## Audit Findings and Recommendations

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Survey data shows the CI rate statewide is over 97 percent, and our testing indicates this number may be even higher. We visited 14 public schools, where we reviewed records for 1,394 students, and found excellent compliance, for an overall CI rate of 99 percent. In contrast, the overall immunization rate for the 10 private schools we visited, where we reviewed records for 976 students, was 80 percent, significantly lower than the 95 percent target rate. Four of the private schools had rates below 70 percent; at two of them, this was due primarily to a significant number of exemptions. The non-exempt students tested at these two schools were all completely immunized. Based on our testing, as well as discussions with school and DOH officials, we determined there are small pockets of at-risk populations that are more likely to have low immunization rates. This is particularly evident at private schools – especially those with proportionally large international student populations. Schools with relatively large migrant student populations are also at higher risk.

Our analysis of the Survey data also found schools in some counties have comparatively high exemption rates, most notably Yates and Montgomery counties, where 5 to 10 percent of the students were granted exemptions by the schools. These high exemption rates put schools in these counties well below the 95 percent target. Four other counties had a rate of 94 percent, just short of the 95 percent target rate. Again, higher-than-normal exemption rates contributed to these counties not meeting the target. Due to the large number of exemptions, it is critical that all non-exempt students be in compliance to help mitigate additional risks of an outbreak. For statewide exemptions by county, see Appendix B.

Our analysis of the Survey data found 139 students who were out of compliance with immunization requirements. After we notified DOH officials of this finding, they took action in all instances to remedy the situation. According to DOH officials, this resulted in many of the students becoming compliant, and officials continue to work to get all identified students immunized.

As previously noted, DOH conducts annual audits of the Survey data. For the two school years in our scope, DOH audited 214 schools. The Department selects schools for audit using both random and judgmental factors. However, based on the results of our testing, we recommended that DOH incorporate more risk factors into its sampling methodology to better target those schools with higher-risk student populations. We discussed this issue with DOH officials, and they agreed with our related recommendation.

### Oversight of Statewide Immunizations

We concluded DOH has appropriate controls in place to ensure schools are adequately preventing, and prepared for, outbreaks of vaccine-preventable disease. Each school we visited has plans and procedures in place that would go into effect in case of an outbreak, and parents of at-risk students have been made aware of not only their risks but also the protocols that would be put in place should an outbreak occur. Also, for the 2014-15 school year, all schools outside New York City, both private and public, submitted their annual Survey data as required.



The average CI rate reported statewide for the 2014-15 school year was 97 percent and our field testing indicates the actual number may now be even higher. Of the 24 schools we visited and tested, 17 had a higher CI rate compared with their earlier reported Survey data. Another six remained the same. Our testing found excellent compliance among public schools. We visited 14 public schools where we reviewed records for 1,394 students and found the CI rate to be 99 percent. Only one school had a lower actual CI rate than reported: a private boarding school with a high student turnover rate and a large international student population. In total, the immunization rate for the 10 private schools we visited, where we reviewed records for 976 students, was 80 percent, significantly lower than the 95 percent target rate. This number was significantly affected by two schools with immunization rates below 70 percent. Two other schools had a comparatively large proportion of religious exemptions. The remaining six private schools we tested each had CI rates of 85 percent or higher.

Additionally, our analysis of DOH data found schools in some counties have high exemption rates, most notably Yates and Montgomery counties, where 5 to 10 percent of the students were granted exemptions by the schools. The high exemption rates put Montgomery County (at 89 percent) and Yates County (at 86 percent) well below the 95 percent target for complete immunization. Four other counties (Allegany, Columbia, Rockland, and Ulster) had CI rates of 94 percent, just short of the 95 percent target. Again, higher-than-normal exemption rates contributed to these counties not meeting the target. In areas where a significant number of exemptions are granted, it becomes even more critical that all non-exempt students be in compliance to mitigate any additional risk of an outbreak.

We discussed these situations with DOH officials throughout our audit and notified them of all 139 students we found who were out of compliance. In each case, they took action to remedy the situation which, they reported, resulted in many of the students becoming compliant. For example, by the end of our fieldwork, DOH officials indicated that they had worked with two of the private schools we visited and brought them into compliance. Officials indicated all students who weren't exempt were now completely immunized. Also, DOH indicated it has initiated legal processes to compel compliance by two other private schools.

DOH annually conducts audits of schools to validate their reported Survey data. Audits tend to focus on schools with reported CI rates of less than 90 percent, plus other schools selected at random. DOH conducted 214 such audits for the two school years in our scope, 170 of which focused on public schools' reporting. Of these audits, our tests found little chance of significant problems. Based on our testing, and through discussions with school and DOH officials, we determined there are small pockets of at-risk populations that are more likely to have low immunization rates, particularly at private schools – and especially those with a large international student population. Schools with large migrant student populations are also at high risk for low immunization rates. We recommended that DOH incorporate more risk factors, such as these, into its sampling methodology to better target assistance to those schools with high-risk student populations. We discussed this issue with DOH officials, and they agreed to incorporate the additional risk factors when selecting schools to audit.

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## Recommendation to DOH

1. Use additional risk factors, such as those detailed in this report, to identify higher-risk schools and better target audit and technical assistance efforts.

## Audit Scope and Methodology

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To determine if the Department of Health (DOH) and the State Education Department (SED) have established effective procedures to ensure New York's schools are adequately preventing, and are prepared to respond to, outbreaks of vaccine-preventable disease. The audit covers the period September 1, 2013 to March 31, 2016.

To accomplish our objective, we reviewed applicable laws and regulations related to immunizations and vaccine-preventable diseases. We analyzed and reviewed immunization data obtained by DOH for all schools in New York for the 2013-14 and 2014-15 school years. We performed data reliability tests and found DOH's Survey and audit data was reliable and could be used to support audit results and conclusions. We met with DOH and SED officials to determine each agency's respective role relating to our audit objective.

We conducted site visits to 24 schools. We judgmentally selected our sample of schools by considering type of school, their reported immunization and exemption rates, and whether their reporting had been previously validated by DOH. We reviewed policies and procedures, as well as other preparedness issues, while conducting our site visits. We also became familiar with the internal controls related to our objective and assessed their adequacy. Lastly, we communicated our preliminary findings to agency officials, and considered information they provided.

We conducted our performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions, and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these functions do not affect our ability to conduct independent audits of program performance.

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## Authority

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The audit was performed pursuant to the State Comptroller's authority under Article V, Section 1 of the State Constitution and Article II, Section 8 of the State Finance Law.

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## Reporting Requirements

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We provided draft copies of this report to DOH and SED officials for their review and formal comment. In their response, DOH officials agreed with our recommendation and indicated the steps DOH will take to implement it. SED officials verbally agreed with our report's observations and conclusions and declined the opportunity to formally respond. We considered DOH's and SED's comments in preparing this report. Also, DOH's formal comments are attached in their entirety to the end of the report.

Within 90 days after final release of this report, as required by Section 170 of the Executive Law, the Commissioners of Health and Education shall each report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendation contained herein, and if the recommendation was not implemented, the reasons why.

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## Contributors to This Report

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## Division of State Government Accountability

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# Agency Comments



## Department of Health

ANDREW M. CUOMO  
Governor

HOWARD A. ZUCKER, M.D., J.D.  
Commissioner

SALLY DRESLIN, M.S., R.N.  
Executive Deputy Commissioner

June 16, 2016

Mr. John Buyce, Audit Director  
Office of the State Comptroller  
Division of State Government Accountability  
110 State Street – 11<sup>th</sup> Floor  
Albany, New York 12236-0001

Dear Mr. Buyce:

Enclosed are the Department of Health's comments on the Office of the State Comptroller's Draft Audit Report 2015-S-85 entitled, "Oversight of Student Immunization in Schools."

Thank you for the opportunity to comment.

Sincerely,

Sally Dreslin, M.S., R.N.  
Executive Deputy Commissioner

Enclosure

cc: Michael J. Nazarko  
Brad Hutton  
Ellen Anderson  
Debra Blog  
Elizabeth Rausch-Phung  
Jeffrey Hammond  
Diane Christensen  
Lori Conway

**Department of Health  
Comments on the  
Office of the State Comptroller's  
Draft Audit Report 2015-S-85 entitled,  
Oversight of Student Immunization in Schools**

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The following is the Department of Health's (Department) response to the Office of the State Comptroller's (OSC) Draft Audit Report 2015-S-85 entitled, "Oversight of Student Immunization in Schools."

**Recommendation #1**

Use additional risk factors, such as those detailed in this report, to identify higher-risk schools and better target audit and technical assistance efforts.

**Response #1**

The Department agrees with this recommendation. The Department will review its school audit selection criteria and will incorporate additional risk factors, including schools known to have a large number of international students or who have high student exemptions, in addition to those criteria currently in use.