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**Thomas P. DiNapoli  
COMPTROLLER**



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**OFFICE OF THE  
NEW YORK STATE COMPTROLLER**

**DIVISION OF STATE  
GOVERNMENT ACCOUNTABILITY**

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**NEW YORK CITY  
DEPARTMENT OF HEALTH  
AND MENTAL HYGIENE**

**FLU PANDEMIC  
PREPAREDNESS**

**Report 2007-N-19**

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## AUDIT OBJECTIVE

Our objective was to determine whether the New York City Department of Health and Mental Hygiene (DOHMH) has been actively preparing for a flu pandemic.

## AUDIT RESULTS - SUMMARY

Influenza (flu) viruses have threatened the health of animal and human populations for centuries. A flu pandemic occurs when a new strain of influenza emerges that has the ability to infect and be passed between humans. We found that DOHMH has been actively preparing for a flu pandemic and has developed a comprehensive plan (Plan) to outline its activities and guide its efforts. However, we also note that not all Plan activities reportedly completed by DOHMH have been documented. Further, improvements are needed over certain inventory items to ensure that they are readily available for distribution in the advent of a flu pandemic.

In July 2006, DOHMH released its Pandemic Influenza Preparedness and Response Plan (Plan) to guide the New York City's (City) response efforts in the event of a flu pandemic. To assist it in its flu pandemic preparedness efforts, DOHMH received \$5.8 million in grant funding from the Centers for Disease Control and Prevention (CDC) and \$1.9 million in grant funding from the United States Department of Health and Human Services (Health and Human Services).

We identified a total of 154 Plan activities ranging from the purchase and distribution of supplies and medical equipment, to conducting exercises that test response scenarios. Of these, we judgmentally selected 20 of the 154 activities, spanning various Plan categories, to determine whether these various activities had been completed. Of the 20

sampled activities, we verified that 18 were adequately documented as completed.

For the two remaining sampled Plan activities, DOHMH could not provide us with adequate supporting documentation to verify that certain required materials, including flu diagnostic test kits and rapid testing kits, were distributed to their intended destinations such as hospitals, clinics and physician's offices. Although receipt of these items was eventually acknowledged by the intended recipients, it was done long after the reported distribution date and only in response to a DOHMH inquiry.

DOHMH's application forms for grant monies include a description of the pandemic flu-related activities DOHMH would complete with the requested grant funds. To verify that the noted grant activities were completed, we judgmentally selected five of the 29 activities listed on the Health and Human Services grant application, and 14 of the 27 activities listed on the CDC grant application. We found that DOHMH completed the sampled grant-related activities as described.

We also note the need for improved controls over the inventory of face masks. DOHMH had not performed a physical inventory to confirm receipt of 216,000 face masks stored in warehouse space located in the State of Delaware.

Our audit report contains three recommendations regarding documentation of Plan and grant-related activities, and inventory controls.

In response to our draft audit report DOHMH officials agreed with two of our recommendations and disagreed with the remaining recommendation.

This report, dated August 13, 2009, is available on our website at: <http://www.osc.state.ny.us>. Add or update your mailing list by contacting us at: (518) 474-3271 or Office of the State Comptroller  
Division of State Government Accountability  
110 State Street, 11<sup>th</sup> Floor  
Albany, NY 12236

## BACKGROUND

Influenza (flu) viruses have threatened the health of animal and human populations for centuries. A flu pandemic occurs when a novel (new) strain of influenza emerges that has the ability to infect and be passed between humans. Because humans would have little immunity against the new virus, a worldwide epidemic, or pandemic, can occur. Flu pandemics have occurred three times since 1900 (1918, 1957, and 1968), killing millions of people worldwide.

Preparing and planning responses to pandemics is taking place at all levels of government. Federal plans, strategies or other guidance have been issued by the United States Homeland Security Council, United States Department of Health and Human Services (Health and Human Services), and the Centers for Disease Control and Prevention (CDC).

In July 2006, the New York City (City) Department of Health and Mental Hygiene (DOHMH) released its Pandemic Influenza Preparedness and Response Plan (Plan) to guide the City's response effort in the event of a flu pandemic. Many City agencies would be involved in a pandemic response, particularly the Office of Emergency Management, the Health and Hospitals Corporation, the Police Department, the Fire Department, and the Department of Citywide Administrative Services. In preparing its Plan,

DOHMH used the U.S. Department of Homeland Security's *National Strategy for Pandemic Influenza Implementation Plan*, issued in May 2006, and the U.S. Department of Health and Human Services' *HHS Pandemic Influenza Plan*, issued in November 2005, as models for its own Plan.

To assist it in its flu pandemic preparedness efforts, DOHMH has received \$5.8 million in grant funding from the CDC, and \$1.9 million in grant funding from Health and Human services.

## AUDIT FINDINGS AND RECOMMENDATIONS

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### *Verification of Plan Activities*

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DOHMH's Plan describes the detailed pandemic planning and response activities expected of DOHMH, as well as other City health care providers such as hospitals and clinics. DOHMH officials stated that the Plan has been a work in progress and will be continually updated as new information becomes available.

The Plan lists nine strategic planning areas: Command, Control, and Management Procedures; Surveillance and Epidemiologic Response; Laboratory Diagnostics; Community Control and Response; Health Care Planning and Emergency Response; Delivery of Antiviral Drugs; Vaccine Management; Mental Health Response; and Communications.

Each planning area contains various activities that are necessary for completion in order for the City to be properly prepared. We identified a total of 154 activities ranging from the purchase and distribution of supplies and medical equipment, to conducting exercises that test response scenarios. We judgmentally selected 20 of these activities,

spanning various Plan categories, to determine whether they had been completed. Of the 20 sampled activities, we verified that 18 were completed and fully documented. For example: One sampled activity required DOHMH to train the staff at 66 New York City hospital and commercial laboratories to perform influenza testing and shorten the time for recognition of an outbreak, while another activity required “tabletop exercises” for hospitals to use in testing their bio-event emergency response plans. Yet another activity required the purchase and distribution of vents and durable medical supplies for pre-selected hospital facilities to enhance surgical capacity in the event of an outbreak. We were able to verify that these activities had taken place.

However, for the following two activities, DOHMH could not provide us with adequate supporting documentation to verify that they had taken place:

- The Plan required flu diagnostic test kits to be provided to 30 different community health clinics, hospitals and private physician practices to perform flu testing. DOHMH records report the kits being distributed during December 2005. We found that the procedures used by DOHMH to verify delivery of these kits were not formalized and, as a result, there were no receipts of test kit delivery on file. As a result, there is inadequate assurance that the test kits were appropriately distributed or the associated testing performed.

In response to our observations, DOHMH sent out confirmation letters to all 30 clinics but only received replies from two clinics that were

dated May 23, 2008 and May 27, 2008. These two clinics indicated that they had received the flu diagnostic test kits, but did not specify the dates received.

- The Plan also required DOHMH to provide 28 sites (clinics and physicians’ offices) with rapid testing kits for the 2005 to 2006 flu season so they could identify whether influenza A was circulating within their practice and community. DOHMH provided us with dated receipts showing that the rapid testing kits were delivered to 20 of the 28 sites commensurate with the above-noted time period. For the remaining 8 sites, DOHMH obtained letters from the clinics, dated March 24-26, 2008, indicating that the kits were received but did not note when they were received. The original dated receipts of delivery provide greater assurance than reliance on after-the-fact correspondence that is unclear about when the kits were obtained.

The earlier a potential pandemic virus is detected, the earlier action to address the virus can be taken. Consequently, ensuring these test kits are distributed and used as intended is one component of early detection.

(In response to our draft audit report, DOHMH officials point out that the test kits are used to identify influenza A. They add that these test kits will not detect a possible pandemic flu such as H1N1. They also point out that the test kits were meant as an incentive for providers to participate in the Influenza Sentinel Providers network, which is a component of DOHMH’s Syndromic Surveillance System.)

### Recommendation

1. Maintain documentation for all Plan activities to verify that each is/was performed as intended.

(DOHMH officials agree with Recommendation 1.)

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### *Verification of Grant Activities*

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To enhance its flu pandemic preparedness activities, DOHMH applied to Health and Human Services and CDC for grant monies to be used specifically for this purpose. The respective grant applications require a description of what activities DOHMH would complete with the grant monies. We found that DOHMH completed all of the sampled grant-related activities. However, we identified a need for improved controls over face mask inventory purchased with Health and Human Services grant monies.

#### **Health and Human Services Grant**

The \$1.9 million award from Health and Human Services was to be used specifically to address flu pandemic planning. Detailed grant application activities include the purchase of surgical gowns, hand hygiene products and face masks; and DOHMH staff visits to emergency departments of local hospitals to conduct screening and isolation drills.

To verify that DOHMH performed the listed grant activities, we judgmentally selected five of the 29 listed activities, spanning various grant categories, for review. We found that the five sampled activities were in fact completed – including the purchase of special use face masks. However, we have concerns regarding the inventory controls over these masks.

DOHMH' grant application stated that 1.1 million face masks would be purchased and retained to help stop the spread of a possible flu pandemic. When we asked to see the face masks in question, DOHMH officials explained during the audit that the original grant funding was reduced and they were only able to purchase 216,000 face masks, at a cost of \$84,396, instead of the originally planned 1.1 million.

According to DOHMH officials, these face masks were stored in a warehouse located in the State of Delaware - and the warehouse did not provide them with a confirmation of the inventory of face masks on hand. Further, DOHMH officials informed us that they had not performed their own physical inventory to confirm receipt of the masks. As a result, DOHMH lacked adequate assurance that the 216,000 face masks in the Delaware warehouse were accounted for.

(In response to our draft audit report, DOHMH officials assert that the face masks in question, although pandemic flu-related, were not purchased with this specific grant. They subsequently provided us with a summary of the items purchased with this specific grant, and the purchase documentation for the masks, to support their assertion. They also indicate that the masks have been relocated to the New York City area and that a new inventory tracking system is being implemented.)

#### **CDC Grant**

The \$5.8 million award DOHMH received from CDC outlined 27 activities relating to planning for a flu pandemic including planning, communication, isolation, quarantine, and community preparedness and participation. To verify that the CDC grant activities were performed, here too we judgmentally selected 14 of the 27 listed

activities, spanning various grant activities, for review. These activities included training, conducting exercises to test the Plan, promoting volunteer recruitment and distributing, storing, monitoring and administering flu pandemic vaccines. In addition, DOHMH is to establish agreements with neighboring jurisdictions that address communication, mutual aid, and other cross jurisdictional needs.

We found that DOHMH adequately documented completion of all 14 sampled activities as described in the grant application.

### Recommendations

2. Verify the existence of the 216,000 masks procured with pandemic flu-related grant monies, and relocate them to New York City.

(DOHMH officials disagree with this recommendation because they maintain the masks have been identified and are now stored in a warehouse in the New York City area.)

3. Implement a comprehensive inventory over all products procured with grant funds including the specialized masks noted above.

(DOHMH officials agree with Recommendation 3.)

### AUDIT SCOPE AND METHODOLOGY

We audited the various activities being employed by DOHMH to prepare for a flu pandemic. Our audit covered the period July 10, 2006 through November 30, 2008.

To accomplish our objective, we met with DOHMH officials and reviewed DOHMH's Pandemic Influenza Preparedness and

Response Plan (Plan), the U.S. Department of Homeland Security's *National Strategy for Pandemic Influenza Implementation Plan*, and Health and Human Services' *HHS Pandemic Influenza Plan*. We also reviewed grant applications and any and all documentation available to support the sampled activities selected for audit. Reviewed documentation included meeting agendas and minutes, attendance sheets, inventory records and purchasing documents.

As is our practice, we notify agency officials at the outset of each audit that we will be requesting a representation letter in which agency management provides assurances, to the best of their knowledge, concerning the relevance, accuracy and competence of the evidence provided to the auditors during the course of the audit. The representation letter is intended to confirm oral representations made to the auditors and to reduce the likelihood of misunderstandings. In the representation letter, agency officials assert that, to the best of their knowledge, all relevant financial and programmatic records and related data have been provided to the auditors. Agency officials further affirm that either the agency has complied with all laws, rules, and regulations applicable to its operations that would have a significant effect on the operating practices being audited, or that any exceptions have been disclosed to the auditors. However, officials at the New York City Mayor's Office of Operations have informed us that, as a matter of policy, mayoral agency officials do not provide representation letters in connection with our audits. As a result, we lack assurance from agency officials that all relevant information was provided to us during the audit.

We conducted our 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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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.

## **AUTHORITY**

We performed this audit pursuant to the State Comptroller's authority as set forth in Article V, Section 1 of the State Constitution, and Article III of the General Municipal Law.

## **REPORTING REQUIREMENTS**

We issued a draft copy of this report to DOHMH officials for their review and comments. Their comments were considered in preparing this final report and are attached in their entirety as Appendix A. State Comptroller Comments on the DOHMH response are attached as Appendix B.

Within 90 days after final release of this report, we request the Commissioner of DOHMH to report to the State Comptroller, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

## **CONTRIBUTORS TO THE REPORT**

Major contributors to this report include William Challice, Frank Patone, Al Kee, Todd Seeberger, Jeff Marks, Ryan Wendelowski, Unal Sumerkan, Jonathan Bernstein, Adele Banks and Sue Gold.

## APPENDIX A - AUDITEE RESPONSE



July 7, 2009

Thomas P. DiNapoli  
New York State Comptroller  
110 State Street  
Albany, New York, 12236

Dear Comptroller DiNapoli:

We are pleased to have the opportunity to respond to this draft report concerning the *New York City Department of Health and Mental Hygiene: Pandemic Flu Preparedness* ("Report") dated May 6, 2009. We acknowledge the work and dedication of your staff during the performance of this audit.

The audit's "objective was to determine whether ... (DOHMH) has been actively preparing for a flu pandemic." We are pleased that the auditors conclude that DOHMH has been actively preparing for a flu pandemic and has developed a comprehensive plan to outline its activities and that guides its efforts.

The auditors made three recommendations. We agree with the two recommendations: that DOHMH should 1) maintain documentation for all Plan activities and 2) implement a comprehensive inventory over all products. As acknowledged in the audit report, DOHMH is procuring a new inventory system, which will commence operation in FY 2010.

However, we disagree with the recommendation that DOHMH "verify the existence of 216,000 masks procured with pandemic flu-related grant monies and relocate them to New York City." Our position is supported by the following facts:

- The 216,000 masks have been identified and are now located in a CDC approved New York City area warehouse.
- These masks were not purchased with Pandemic Flu related monies. They were procured under a separate grant program, Assistant Secretary for Preparedness and Response (ASPR), for hospital preparedness for all emergencies.
- In August 2008, we explained to the auditors that these masks were procured with a separate program grant funds and provided them with proof of purchase of 216,000 masks and their shipment from a Delaware warehouse. As stated above, these masks were transferred to a New York City area warehouse in February 2009.

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Comment  
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\* See State Comptroller Comments, page 12.



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Thomas P. DiNapoli

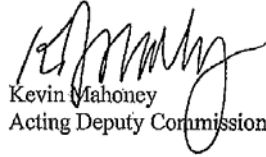
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July 7, 2009

Additional comments on the draft audit report are included in the full response which supports our position.

We appreciate the courtesy and professionalism of your staff in their performance of this audit. If you have questions or need further information, please contact Thomas Hardiman, Director, Internal and External Audits, at 212-219-5285.

Sincerely,



Kevin Mahoney  
Acting Deputy Commissioner

CC: Thomas Farley, MD, MPH  
Andrew Rein  
Isaac Weisfuse, MD, MPH  
Sara Packman  
Thomas Hardiman

**RESPONSE TO THE NEW YORK STATE COMPTROLLER'S AUDIT OF THE  
DEPARTMENT OF HEALTH AND MENTAL HYGIENE FLU PANDEMIC  
PREPAREDNESS**

**(2007-N-19)**

This response to findings and recommendations, along with the attached cover letter constitute DOHMH's formal response to the Office of the Comptroller's draft report titled *New York City Department of Health and Mental Hygiene: Pandemic Flu Preparedness* ("Report") dated May 6, 2009. We acknowledge the work and dedication of your staff during the performance of this audit.

The audit's objective was to determine whether "DOHMH has been actively preparing for a flu pandemic". We are pleased that the auditors concluded that DOHMH has been actively preparing for a flu pandemic and has developed a comprehensive plan to outline its activities and that guides its efforts.

The auditors made three recommendations. We agree with the two recommendations that DOHMH should 1) maintaining documentation for all Plan activities and 2) implement a comprehensive inventory controls over all products. As acknowledged in the audit report, DOHMH is procuring a new inventory system, which will commence operation in FY 2010. However, we disagree with the third recommendation that DOHMH should "verify the existence of 216,000 masks procured with pandemic flu-related grant monies and relocate them to New York City".

In the following sections, we first focus on the Audit Results Summary section where we explain why this recommendation should be removed from the report and suggest an additional change for clarity. We will then respond to each recommendation.

**Audit Results Summary - 216,000 Face Masks**

In the Audit Results – Summary, the auditors state that "DOHMH could not readily identify 216,000 face masks purchased with grant funds." The auditors also state that the masks "...would not be readily available to New Yorkers, including first responders, until transported to the New York City area." These statements should be removed from the report for the following reasons:

- The 216,000 masks have been identified and are now located in a CDC approved New York City area warehouse which is easily accessible to NYC. These masks were not purchased with Pandemic Flu related monies. They were procured under a separate grant program, Assistant Secretary for Preparedness and Response (ASPR), for hospital preparedness for all emergencies.
- In August 2008, we explained to the auditors that these masks were procured with a separate program grant funds and provided them with proof of purchase of 216,000 masks and their shipment from a Delaware warehouse. We have forwarded documentation of the transfer of these masks to the New York City area warehouse under a separate cover.

* Comment 2
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\* See State Comptroller Comments, page 12.

- The auditors did not visit the warehouse where these masks were stored.
- In the event of a pandemic flu outbreak, there would be sufficient time to transfer the masks from Delaware to the New York area. As a result, we recommend removing the statement about the masks not being readily available to New Yorkers.

**Verification of Plan Activities – Distribution of Diagnostic Test Kits**

The auditors acknowledged that DOHMH had sought, obtained, and provided the alternative documentation to demonstrate that the test kits were delivered to their intended recipients. We would like the auditors to include the following paragraph for clarity about the test kits and their importance:

“The test kits are used to identify influenza A. These kits will not detect a possible pandemic flu such as H1N1. These kits were meant to serve as an incentive for providers to participate in the Influenza Sentinel Providers Network, which is a component of DOHMH’s Syndromic Surveillance System.”

* Comment 2
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**DOHMH Response to Audit Recommendations**

*1. Maintain documentation for all Plan activities to verify that each is/was performed as intended.*

**DOHMH Response:**

We concur with the auditors’ recommendation. Documentation is routinely maintained for all Plan activities. Occasionally a document is misplaced and the program will take steps to substantiate activities by using alternative documentation.

*2. Verify the existence of the 216,000 masks procured with Pandemic flu-related grant monies, and relocate them to New York City.*

**DOHMH Response:**

As stated above, the 216,000 masks have been identified, and are now stored in a warehouse in the New York City area.

*3. Implement a comprehensive inventory over all products procured with grant funds including the specialized masks noted above.*

**DOHMH Response:**

We are aware of the need to improve inventory controls at DOHMH’s warehouse. We are in the process of implementing a new inventory tracking system, that will include grant purchased equipment and items. The system is expected to commence operation in FY2010.

\* See State Comptroller Comments, page 12.

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## APPENDIX B - STATE COMPTROLLER COMMENTS ON AUDITEE RESPONSE

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1. It appears that much of the DOHMH disagreement with this recommendation is because the 216,000 masks have reportedly been identified and were relocated to a New York City area warehouse in February 2009. We are pleased that actions have been taken consistent with our recommendation developed at the time of our audit. DOHMH officials also note that the masks we looked for were not purchased with the grant in question, but were purchased with another pandemic-flu related grant. As support for their response, they subsequently provided us with a summary of the items purchased with the audited grant, and the procurement documentation for the 216,000 masks. Our report has been revised to reflect these facts.
2. We have revised our final audit report to reflect the comments of DOHMH officials.