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September 12, 1996

The Honorable Luis R. Marcos, M.D.  
President  
New York City Health and Hospitals Corporation  
125 Worth Street  
New York, New York 10007

Re: Second Follow-up Review of *Planning  
for Disasters (A-23-89)*, Report No. A-12-96

Dear Dr. Marcos:

Pursuant to the State Comptroller's audit authority as set forth in the State Constitution, the State Finance Law, and the General Municipal Law, we have reviewed the actions taken by the New York City Health and Hospitals Corporation (HHC) to implement the recommendations from our prior audit report *Planning for Disasters*, Report A-23-89 issued March 28, 1990.

The prior audit highlighted shortcomings in some HHC hospitals' Disaster Plans and/or implementation of some of those Plans. For example, none of the seven HHC hospitals that we examined had a Disaster Plan that met the standards for all the elements evaluated by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and by the National Fire Protection Association (NFPA). Also, there was inadequate training of hospital personnel for their roles in disasters.

We made 25 recommendations, seven to the HHC Central Office and 18 to individual hospitals, to enhance HHC's overall ability to respond to a major disaster. For example, we recommended that a Central Office oversight role be established. It would coordinate, evaluate and monitor the Disaster

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Plans of individual hospitals and other facilities to ensure that their Plans fully comply with the JCAHO and NFPA standards. Also, we emphasized that fire and safety training should be provided and that the required number of disaster drills should be conducted each year.

This is the second follow-up review on the implementation of our original report. In our first follow-up, Report A-12-93 issued June 15, 1993, we reviewed the implementation actions taken on the prior recommendations by Central Office and Elmhurst, Metropolitan, and Woodhull Hospitals (the three hospitals visited during the first follow-up). In this review, we updated our review of the current implementation status of the seven recommendations addressed to the HHC Central Office, and examined the Disaster Plans at the remaining four facilities (Jacobi, Queens and Lincoln acute care hospitals, and the Seaview long-term care facility). We were informed that the four facilities are fully accredited by JCAHO and NFPA.

In this follow-up, we found that all seven recommendations we had directed to the HHC Central Office in the original audit have been either implemented or partially implemented (an improvement since the first follow-up where we found two recommendations not implemented). As a result, the public may have further assurance that HHC facilities have a central resource for technical guidance and assistance in preparing for possible disasters, and that this preparation includes training and testing its staffs for a timely and appropriate response to such disasters. We consider that these additional HHC actions resulted in greater compliance by the hospitals with the accreditation agencies' standards.

Yet, to further enhance the capabilities of an immediate and maximum HHC response to the indeterminable possibilities of an event that may be classified as an internal or external disaster, we recommend herein additional Disaster Plan initiatives. For example, we recommend that the six HHC Networks jointly develop a uniform format for Disaster Plans that comply fully with JCAHO and NFPA standards. There should be periodic verification that each facility is implementing the actions required by those standards. In addition, we recommend corrective action to the disaster plans of the four HHC facilities we visited. For example, we observed lackadaisical member attendance at Disaster Committee meetings where disaster planning and disaster drill shortcomings should be identified, corrected and disseminated to concerned facility personnel. There is also a need at three hospitals to assure that there is access to an alternate source of computer capability in the event of failure of their own equipment, and a need to provide for additional security coverage during the chaos that may develop during the reaction to a disaster event.

The details of our findings and background information are contained in the attached Appendix A. In Appendix B, we show compliance with specific accreditation standards by each of the four HHC facilities we visited.

We thank the Office of Internal Audits and the staffs of Bronx Municipal Hospital (now Jacobi), Queens Hospital Center, Lincoln Medical and Mental Health Center, and Seaview Hospital and Rehabilitation Center and Home for the assistance, cooperation and courtesies extended to our auditor during the follow-up review.

We would appreciate a response, indicating the actions taken or planned to address the unresolved matters discussed in this report.

Sincerely,

Rosemary Scanlon

Attachment

cc: D. Lynne, Director of Operations

## New York City Health and Hospitals Corporation

### Second Follow-up Review

#### Planning for Disasters

A-12-96

#### Background

The Health and Hospitals Corporation (HHC) provides comprehensive health care services to City residents at 11 acute care hospitals, five long-term care facilities, five freestanding Diagnostic and Treatment Centers, two satellite clinic networks, a number of smaller neighborhood clinics, and two Health Maintenance Organizations.

The City's Office of Emergency Management (OEM) provides oversight and coordination of all City emergency efforts implementing the City's overall Emergency Plan. Each HHC facility is expected to have its own Disaster Plans for continuing operations in the event of an external or internal emergency.

The operation of each HHC hospital is examined every three years by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Hospitals need JCAHO approval to secure and retain licensing and government funding. The JCAHO examination includes a review of the hospital's Emergency Preparedness Program as delineated in a Disaster Plan (Plan). Generally included in the Plan is a separate fire plan prepared in accordance with standards established by the National Fire Protection Association (NFPA).

JCAHO defines a disaster as any situation that seriously overtaxes, or threatens seriously to overtax, the routine capabilities of a health care facility so as to create the need for an emergency expansion of facilities. An internal disaster is an occurrence that causes physical damage to the hospital and/or injury to the hospital staff. An external disaster is an occurrence that results in a need for the hospital to treat a large number of casualties but causes no damage to the facility. External disasters include earthquakes, hurricanes, tornadoes, floods, mass food poisoning, industrial accidents, transportation accidents, building fires, utility failures, arson and bombings.

According to JCAHO guidelines, the Plan should provide for the "effective utilization of available resources to prevent or minimize the consequences of a disaster . . . so that patient care can be continued during a disaster." Also, each Plan should be "pertinent to a variety of disasters and . . . based on the hospital's capabilities and limitations." The guidelines suggest but do not mandate, that facilities should prepare Plans to address both internal and external disasters. All roles and responsibilities of the various hospital departments should be in writing so that they can be reviewed, incorporated into a training program, tested, and evaluated for effectiveness.

This follow-up focused on the seven recommendations that were addressed to HHC in the original audit

(the other 18 recommendations in that audit were specific for hospitals examined during our first follow-up). HHC, in its decentralization, reduced Central Office's oversight of disaster planning and implementation. Yet, the thrust of the seven recommendations remains the same: to enhance HHC's delivery of emergency health services to the patients in the event of a disaster. We evaluated the current capability of disaster planning at the four hospitals (Jacobi, Queens, Lincoln, and Seaview) included in our original audit that were not reviewed in our first follow-up. We understand that the six Networks established from the HHC decentralization assumed many of the staff support functions and oversight previously done by Central Office, with ultimate responsibility for disaster planning delegated to each facility's Executive Director.

Our review used the follow-up standards described below for assessing the extent of corrective action, if any:

**Implemented** - auditee agreed with the recommendation, and we verified that action had been taken to adopt the recommendation or an alternative approach that achieved the same objective.

**Partially Implemented** - auditee agreed with the recommendation, and we observed that action was in process that would implement the recommendation or the recommendation's objective.

**Not Implemented** - auditee disagreed with the recommendation or, if it had agreed, there was no evidence of implementation action being taken.

**No Longer Applicable** - auditee took other action that rendered this recommendation moot.

## FOLLOW-UP OBSERVATIONS, BY RECOMMENDATION

The Health and Hospitals Corporation should:

1. **Consider establishing a stronger Central Office oversight role to coordinate, evaluate and monitor the preparation and implementation of Disaster Plans for its hospitals and other facilities. At a minimum, we believe that Central Office should ensure that each facility periodically updates its Plan.**

**Status** - Implemented

**Agency Action** - An Office of Occupational and Environmental Health Services (OOEHS) was established at HHC's Central Office, as we recommended, for ensuring that the facilities' Plans meet the JCAHO and NFPA standards. Although it was reduced in staff as part of the downsizing of Central Office, OOEHS is available and responsible for "technical assistance and guidance to our facilities regarding such plans."

2. **Consider requiring all hospitals to prepare two separate Plans, an internal and an external one.**

**Status** - Partially Implemented

**Agency Action** - JCAHO instructions "recommend" separate Disaster Plans because the response differs for some types of internal and external disasters. Jacobi and Queens have adopted the recommendation and established separate external and internal Plans. Lincoln and Seaview prepared only a combined single Plan. Seaview maintains that separate plans are not needed since it is a long term care facility.

The hospitals are required to update their Plans once a year. Jacobi, Queens, and Seaview updated their Plans in 1995. Lincoln has not done an update since 1993, but we were told that an update is underway.

3. **Review all Plans to make certain that they meet the pertinent elements of the JCAHCO and NFPA standards.**

**Status** - Partially Implemented

**Agency Action** - NFPA requires that an Internal Plan address 26 elements (such as evacuations, drills, etc.); External Plans should address 23 elements; and a combined Plan should address 26 elements. Our review of the six Plans showed compliance ranging from 87 to 92 percent.

**Degree of compliance**

	<b><u>Internal Elements (26)</u></b>	<b><u>External Elements (23)</u></b>	<b><u>Combined Elements (26)</u></b>
Jacobi	24	21	NA
Queens	23	20	NA
Lincoln	NA	NA	23
Seaview	NA	NA	22

NA = Not Applicable

Our review disclosed the following exceptions to the standards:

- C Four Plans did not provide for additional sources of security coverage during a disaster and four others did not provide for the physical safety of the employees during civil disturbance.
- C Three Plans did not indicate that there was external coordination with an outside community emergency medical service in the development of the Plan, and three Plans did not specify alternative EDP sources in case the hospital's own computer equipment is destroyed during a disaster.
- C One Plan did not specify how plan information is to be disseminated to the professional staff and employees, and the differences between standard operating procedures and disaster operating procedures.

Also, some External Plan standards were incorporated in Internal Plans and vice versa. We deemed the presence of a standard in either Plan as "compliance".

**4. Ensure that adequate disaster preparedness and fire and safety training are provided to key personnel.**

**Status** - Partially Implemented

**Agency Action** - Jacobi provided one emergency preparedness orientation to 202 new employees. It could not document that veteran employees were reoriented annually by the respective department heads on their specific roles during a disaster, or that the Internal Plan fire safety training element was given yearly as part of the employee in-service training programs.

Similarly, Lincoln could not document the number of employees who received mandatory in-service training in 1995.

Seaview provided fire and safety training in 1995 to 319 of the hospital's 636 employees. It also conducted the mandated annual in-service training on infectious disease controls, patients' rights, and hospital safety to the staff of the various departments. However, only 66 percent of the hospital's staff attended.

Queens could not assure us that all its employees receive training in all required matters in 1995. It did document training 930 floor wardens on the new fire alarm system; hospital-wide orientation training for 529 employees; and fire and safety training to 908 employees. In addition, Queens provided orientation training on emergency preparedness to all 166 new employees.

- 5. Ensure that its facilities conduct the required number of internal and external disaster drills each year. One of the drills should include an influx of "casualties" so as to adequately assess hospital and staff response and patient management.**

**Status** - Partially Implemented

**Agency Action** - Jacobi conducted one external disaster drill in 1995. Critiques of this drill resulted in a recommendation for additional in-service training by the departments concerned.

Queens simulated one external disaster drill in 1995, that of a bomb detonated at a shopping mall. The critiques indicated that the overall response by the staff was excellent. Queens had one actual external disaster incident involving the influx of 14 children exposed to noxious fumes at a local school. It activated the disaster alert which mobilized its disaster response resources. Queens also conducted 63 fire drills in all buildings of the hospital complex.

Lincoln did not conduct external disaster drills in 1995 because it experienced two incidents considered actual external disasters: emergency room admissions of six persons suffering from illicit drug overdoses, and three trauma patients with gunshot wounds. We were told that an actual disaster counts as a drill. A critique of this incident indicated that the drill was a success, but identified areas needing improvement. Lincoln also conducted 28 fire drills. The critiques of the drills indicated that department heads were notified of employees not participating in the drill.

In 1995, Seaview had one actual internal disaster incident involving a water main break, and conducted 22 fire drills.

Jacobi and Queens have separate external and internal Disaster Committees while Lincoln and Seaview each have one. The critiques of a hospital's drills should be discussed at Disaster Committee meetings. The minutes of 1995 committee meetings at all facilities showed poor attendance.

**6. Ensure that its facilities inform employees of disaster-related procedures through written directives.**

**Status** - Implemented

**Agency Action** - Disaster Plan procedures are expected to be disseminated to employees through in-service training programs, new employee orientation, and the Employee Handbook. In addition, each department head receives a copy of the Plans and should orient his or her staff to specific roles during a disaster. Inquiries at randomly selected departments at two hospitals found that most had a copy of its Disaster Plans.

**7. Provide Fire/Safety training for its police at their assigned locations.**

**Status** - Implemented

**Agency Action** - The Hospital Police assigned to the four hospitals received in-house training.

### **Current Recommendations**

Based on our follow-up, we recommend that the six HHC Networks jointly develop a uniform format for Disaster Plans that comply fully with JCAHO and NFPA standards. There should be periodic verification that each facility is implementing the actions required by those standards. In addition, we recommend the following corrective actions to the Disaster Plans of the four hospitals that we reviewed.

Jacobi Hospital should:

1. Strengthen the documentation required to prove compliance with training requirements.
2. Conduct the required number of internal and external disaster drills each year, and ensure that hospital personnel are familiar with disaster protocols.
3. Ensure attendance at Disaster Committee meetings. Information discussed at these meetings should be provided to absent members.
4. Evaluate and revise its Disaster Plan to:
  - a. Provide for additional security coverage and indicate its source.
  - b. Provide for the physical safety of the employees during civil disturbance.

Queens Hospital Center should:

1. Ensure attendance at Disaster Committee meetings. Information discussed at these meetings should be provided to absent members.
2. Evaluate and revise its Disaster Plan to:
  - a. include coordination with an outside community emergency medical service in the development of its Plan.
  - b. provide for additional security coverage and indicate its source.
  - c. indicate the name and location of alternate sources of computer equipment.

Lincoln Medical and Mental Health Center should:

1. Prepare both Internal and External Plans.
2. Strengthen internal controls to assure that data on training is reported.

3. Conduct the required number of internal and external disaster drills each year, and ensure that hospital personnel are familiar with the disaster protocol.
4. Ensure attendance at Disaster Committee meetings. Information discussed at these meetings should be provided to absent members.
5. Evaluate and revise its Disaster Plan to:
  - a. include external coordination with an outside community emergency medical service on the development of its Plan.
  - b. indicate the name and location of alternate sources of computer equipment.
  - c. address the need for a visitors' reception center away from the main facility or receiving area, and specify its location.
  - d. Provide for the physical safety of the employees during a civil disturbance.

Seaview Hospital and Rehabilitation Center and Home officials should:

1. Conduct the required number of internal and external disaster drills each year, and ensure that hospital personnel are familiar with the disaster protocol in the event of actual disaster.
2. Ensure attendance at Disaster Committee meetings. Information discussed at these meetings should be provided to absent members.

3. Evaluate and revise its Disaster Plan to:
  - a. specify how Plan information is to be disseminated to the employees.
  - b. provide for the physical safety of the employees during civil disturbance.
  - c. Indicate the name and location of alternate sources of computer equipment.

**Compliance with Elements of Disaster Plan  
Jacobi, Queens, Lincoln, and Seaview Hospitals**

No.	Elements	Jacobi		Queens		Lincoln	Seaview
		Int.	Ext.	Int.	Ex.		
1.	Indicate where critical medical supplies, food and water are stockpiled.	Yes	Yes	Yes	Yes	Yes	Yes
2.	Indicate where portable disaster kits are stockpiled.	Yes	Yes	Yes	Yes	Yes	Yes
3.	Provide for obtaining additional medical and emergency supplies and equipment from outside source.	Yes	Yes	Yes	Yes	Yes	Yes
4.	Provide for obtaining emergency staff from an outside source.	Yes	Yes	Yes	Yes	Yes	Yes
5.	Provide for an alternate site to transfer all or part of the hospital's operations.	Yes	Yes	Yes	Yes	Yes	Yes
6.	Define the role of security personnel during a disaster.	Yes	Yes	Yes	Yes	Yes	Yes
7.	Provide for additional security and indicate source.	No	No	No	No	Yes	Yes
8.	Address the issue of traffic control. Include traffic flow charts for internal traffic showing stairs, corridors, exits, etc.	Yes	Yes	Yes	Yes	Yes	Yes
9.	Indicate the location for the control center during a disaster.	Yes	Yes	Yes	Yes	Yes	Yes

NA = Not Applicable

**APPENDIX B**

No.	Elements	Jacobi		Queens		Lincoln	Seaview
		Int.	Ext.	Int.	Ex.		
10.	Indicate an available alternative communication system if the switchboard becomes inoperable, such as two-way radios, walkie-talkie, etc.	Yes	NA	Yes	NA	Yes	Yes
11.	List source and location of an alternative communication system outside the facility (e.g., nearest pay telephones).	Yes	NA	Yes	NA	Yes	Yes
12.	Indicate the name and location of alternate sources of computer equipment.	Yes	Yes	No	No	No	No
13.	Indicate the location of a reception area for the news media and provide for the media reception area to have access to telephone communications.	Yes	Yes	Yes	Yes	Yes	Yes
14.	Indicate that the facility has one or more unlisted telephones and their locations for use in making outgoing calls during emergencies.	Yes	Yes	Yes	Yes	Yes	Yes
15.	Address the need for a visitor's reception center away from the main facility or receiving area and specify its location.	Yes	Yes	Yes	Yes	No	Yes
16.	Define the role of the clergy.	Yes	Yes	Yes	Yes	Yes	Yes
17.	Provide for the use of identification cards for authorized personnel utilized in disaster procedures.	Yes	Yes	Yes	Yes	Yes	Yes

NA = Not Applicable

No.	Elements	Jacobi		Queens		Lincoln	Seaview
		Int.	Ext.	Int.	Ex.		
18.	Specify differences between standard operating procedures and disaster operating procedures.	Yes	Yes	Yes	Yes	Yes	Yes
19.	Specify the individual role of each professional staff member and employee of the facility.	Yes	Yes	Yes	Yes	Yes	Yes
20.	Specify how Plan information is to be disseminated to the professional staff and employees.	Yes	Yes	Yes	Yes	Yes	No
21.	Indicate that there was external coordination with an outside community emergency medical service in the development of the Plan.	Yes	Yes	No	No	No	Yes
22.	Provide the switchboard operator with a checklist to be kept available at all times and used to obtain as much information as possible from a caller concerning the location of an alleged bomb, time of detonation, and other essential data.	Yes	NA	Yes	NA	Yes	Yes
23.	Provide for the physical safety of the employees during civil disturbance.	No	No	Yes	Yes	Yes	No
24.	Address radiation control and decontamination of victims or staff personnel and public safety in connection with nuclear accidents or incidents.	Yes	Yes	Yes	Yes	Yes	NA

NA = Not Applicable

No.	Elements	Jacobi		Queens		Lincoln	Seaview
		Int.	Ext.	Int.	Ex.		
25.	Cover the risk of radiation, hazardous material and contaminated patients.	Yes	Yes	Yes	Yes	Yes	Yes
26.	Include a sequence for deactivating the Plan protocols overall or for deactivation by functional unit as casualties are treated and sent elsewhere.	Yes	Yes	Yes	Yes	Yes	Yes
Elements							
Complied with		24	21	23	20	23	22
Not complied with		2	2	3	3	3	3
Not Applicable		0	3	0	3	0	1
Total applicable elements		26	26	26	26	26	26
Compliance Rate		92%	91%	88%	87%	88%	88%