

SECTION 1

INTRODUCTION

During the past five years, FDNY's World Trade Center Medical Monitoring and Treatment Program (FDNY-WTC-MMTP) has become a national model in terms of both providing services for Department members and developing comprehensive data on the effects of exposure to the WTC site. These objective data were an important part of the Mayor's WTC Health Panel's deliberations and recommendations released in February 2007. Through a series of charts and graphs, our FDNY report presents the data we have obtained. We hope this information is useful to all of our members, including non-WTC responders, in understanding the known health effects of 9/11. Of course, this FDNY report presents only aggregate data and contains no information about any individual member's health. In performing its medical monitoring and treatment roles, the FDNY-WTC-MMTP, as a top priority, is preserving the confidentiality of members' personal health records and information.

Section 1 of this report provides some background on the FDNY-WTC-MMTP (hereafter referred to as "the FDNY WTC Program"). Section 2 presents aggregate data on the physical health effects of exposures at the WTC on and after 9/11. Section 3 presents aggregate data on the mental health effects of 9/11. Section 4 shows the effects of 9/11 on FDNY member retirements and disability pensions collected. Sections 5 and 6 provide a summary of efforts to date, a brief look at future plans and information about funding the FDNY's programs. **The Appendices provide useful additional information about treatment centers, self-evaluation tips about your potential need for treatment and a list of FDNY WTC publications.**

MISSION

The current mission of the FDNY WTC Program is to evaluate and treat individual FDNY members, both active and

retired, who worked at the WTC sites. The FDNY WTC Program develops plans for future monitoring and treatment needs by analyzing patterns of illness and using this information to answer central questions about the health effects of WTC exposure. Monitoring and treatment are an outgrowth and expansion of what the FDNY Bureau of Health Services (FDNY-BHS) does everyday--improving member health and wellness through periodic medical evaluations, preventive therapies, injury/illness evaluations and treatment.

HISTORY OF THE FDNY WTC PROGRAM

One month after the attacks on the WTC, under the guidance of our Chief Medical Officers, Dr. Kerry Kelly and Dr. David Prezant, FDNY-BHS began comprehensive medical screenings. Both doctors were caught in the collapse and understood the potential short- and long-term health impacts of the unique exposures experienced at the WTC sites by our FDNY rescue workers (Firefighters and EMS members). FDNY-BHS co-designed this program specifically for FDNY members, partnering with the Uniformed Firefighters Association (UFA), the Uniformed Fire Officers Association (UFOA), the International Association of Fire Fighters (IAFF) and Uniformed Emergency Medical Technicians and Paramedics (UEP), Uniformed EMS Officers (UEMSO) and the Supervising Officers Association (SOA).

The periodic medicals and treatment programs already in place for active members supplied the foundation for the FDNY WTC Program and enabled FDNY-BHS to institute the program rapidly. We are proud that our BHS physicians were the first to identify and treat WTC-related illnesses and that the FDNY WTC Program helped to inform other WTC medical programs, including those provided by the Mount Sinai Consortium's¹ WTC Medical Monitoring and Treatment Program for non-FDNY responders and the Bellevue Hospital WTC



Environmental Health Center's Treatment Program.

Recognizing the potential for long-term health consequences from the exposures experienced at the WTC site, the FDNY WTC Program expanded its initial screening programs to include long-term monitoring, disease surveillance for late-emerging problems and treatment. Over time, the FDNY WTC Program also included many scientific partners, including the Centers for Disease Control and Prevention (CDC), the National Institute for Occupational Safety and Health (NIOSH), the Mt. Sinai NY/NJ WTC Health Consortium for non-FDNY responders, the Bellevue Hospital WTC Environmental Health Center, Montefiore Medical Center and Albert Einstein College of Medicine. As of December 31, 2006, more than 14,200 FDNY WTC rescue workers have had medical monitoring examinations and more than 8000 have received follow-up monitoring exams. Outreach activities continue in an effort to give monitoring examinations to all of the approximately 16,200 members with whom the FDNY WTC Program has been in active contact.

The FDNY WTC Program recently has expanded to provide WTC-related medications to active and retired members. The various treatment options available in the program will be discussed in greater detail later in this publication. Treatment provided under the FDNY WTC Program includes services only for WTC-related conditions. For those who did not participate in the WTC rescue and recovery effort and are not eligible for these free medications, the FDNY WTC Program remains important because it has allowed FDNY to provide increased monitoring, expanded treatment options, improved safety benefits and more robust training programs to all members.

FUNDING

In October 2001, only four weeks after the attack, FDNY-BHS began performing standardized medical screenings on

WTC rescue workers with funding provided by NYC and the FDNY. This was the first comprehensive post-WTC exposure medical performed by any medical institution. In November 2001, the CDC granted \$4.8 million to the FDNY to help fund this program from 2002 to 2004. This allowed the FDNY WTC Program to include affected retirees, who previously would have been excluded from BHS monitoring and treatment. By February 2002, FDNY-BHS had conducted screening medical examinations on nearly 10,000 FDNY rescue workers (Fire and EMS, active and retired).

In July 2004, the FDNY received \$25 million from CDC/NIOSH to expand its monitoring program for an additional five years (2004-2009). This funding pays for standardized clinical exams, staffing, scheduling and follow-ups. With this funding, every "annual" or periodic medical evaluation members receive at the FDNY has been improved and expanded to be a WTC periodic medical to include higher quality pulmonary function tests and improved medical and mental health questionnaires. It also supports an FDNY data management group to provide quality assurance and data analysis, so that the FDNY WTC Program can plan for future needs and release its findings to our members. This report, provided to every active FDNY member and affected retiree, is one example of the data management group's work.

The FDNY WTC Program receives funding from the FDNY to provide most work-related treatment for our active members. Since 2005, certain specialized WTC treatments have been provided by supplemental funding through a September 11th Recovery Grant from the American Red Cross (ARC) Liberty Disaster Relief Fund. For retirees, initial funding for WTC-related physical health treatment (respiratory, etc.) came from this ARC grant. For retirees and family members, funding for WTC-related mental health treatment has come from multiple sources,

including the FDNY, IAFF, ARC, FEMA--Project Liberty, SAMSA and various philanthropies. A recent (November 2006) influx of approximately \$20 million from the federal government (NIOSH) now is being used to continue these medical and mental health treatment efforts. We anticipate that this funding will support the program for approximately 12 months.

The FDNY continues its efforts to secure additional federal funding to provide members with continued long-term monitoring and expert treatment. Future federal funding is always contingent upon documented needs; therefore, member participation in the FDNY WTC Program is important.

The FDNY and its unions have been major supporters of this program. Every dollar we receive from the federal government for the FDNY WTC Program is spent only on this program. Both the Fire Commissioner and union leadership have been instrumental in helping FDNY-BHS obtain funding for the FDNY WTC Program.

City government also has played a crucial role. In September 2006, the WTC Health Panel was formed to make recommendations to ensure sufficient funding of WTC health programs in the future. Its report, "Addressing the Health Impacts of 9-11," and the subsequent testimony given by Mayor Bloomberg before the U.S. Senate, vigorously advocate federal funding to fully support the FDNY WTC Program, the Mount Sinai Consortium's WTC Medical Monitoring and Treatment Program for non-FDNY responders and the Bellevue Hospital WTC Environmental Health Center's Treatment Program.

¹ Hospitals in the Mount Sinai Consortium:

- Mount Sinai School of Medicine/I. J. Selikoff Center for Occupational and Environmental Medicine
- Long Island World Trade Center Monitoring and Treatment Programs/Stony Brook Medical Center

- Center for the Biology of Natural Systems, Queens College
- University of Medicine & Dentistry of New Jersey/Robert Wood Johnson Medical School, Environmental & Occupational Health Sciences Institute
- Bellevue Hospital Center/NYU School of Medicine

- BHS Programs/Activity
- BHS Press Clippings
- BHS Published Scientific Articles

BHS WTC PROGRAM TIME LINE—September 2001-April 2007

2001

SEPTEMBER

WTC Attacks
 Tower 1 and 2 collapse
 Total job recall

BHS sets up triage center on Broadway

Tower 7 collapse

BHS treats members for WTC symptoms & injuries

CSU support groups begin, debriefing groups at site

IAFF and NFFF assist FDNY-CSU
 CSU sets up units in Staten Island and Fort Totten, Queens

Dr. Kelly testifies before U. S. Congress on WTC health impact
 Dr. Prezant addresses IAFF Convention on WTC health impact

NY Daily News, Sept. 27th. "Fire Doc Cites Nightmare of Bravest"

OCTOBER

FDNY becomes Project Liberty mental health site

WTC Medicals begin 7 days a week, 3 shifts per day

BHS and CDC partnership to test for heavy metals, PCBs and PAHs

BHS identifies "WTC Cough Syndrome"

FEMA and Project Liberty funding arrive for CSU

Congressional Committee hearings on 9/11

NY Times, Oct. 30th. "A Nation Challenged: The Firefighter's Rampant Coughs and Chest Pain Among Workers at Ground Zero"

NY Newsday, Oct. 30th. "The War on Terror; Breathing uneasily; respiratory problems plaguing Firefighters"

NY Daily News, Oct. 30th. "Firefighters battle 'Trade Center Cough'; 4,000 report problems linked to dust & smoke"

NOVEMBER

FDNY awarded \$4.8 million from CDC for medical screening for years 1 and 2



DECEMBER

Fires at WTC suppressed

2002

JANUARY

Dr. Prezant and Senator Hillary Clinton at joint press conference to secure \$12 million

Dr. Kelly addresses NY Congressional Delegation on 9/11 health effects

NY Daily News, Jan. 20th. "Terror Attacks Take Hidden Toll: Posttraumatic Stress hits Finest, Bravest"



FEBRUARY

BHS completes more than 10,000 WTC Screening Medicals on FDNY members
 WTC Screening Medicals continue 5 days a week, one shift per day

BHS WTC PROGRAM TIME LINE—September 2001-April 2007

2002

MARCH

NY Daily News,
March 4th.
“Retiring from the
Horror Post-9/11
job stress thinning
out Bravest &
Finest”

NY Daily News,
March 24th. “NY
Firefighters Struggle
with Breathing
Problems”



APRIL

Dr. Kelly
addresses
Congressional
Committee on
Environmental
Conservation,
Health and
Labor

JULY

WTC site officially
closes

FDNY work officially
ends at the WTC site

FDNY Free Tobacco
Cessation Program
begins, supported by
Pfizer, IAFF, ACCP
and Chest
Foundation

*American Journal of
Respiratory and
Critical Care
Medicine*, July 2002.
“Acute Eosinophilic
Pneumonia in a New
York City Firefighter
Exposed to World
Trade Center Dust”

NY Newsday, July
30th. “Clinton:
Release \$90M for
Checkups”

SEPTEMBER

BHS gives testimony at NY Academy of
Medicine Specialists WTC Meeting

MMWR, Sept. 11th. “Injuries and Illnesses
Among New York City Fire Department Rescue
Workers After Responding to the World Trade
Center Attacks”

MMWR, Sept. 11th. “Use of Respiratory
Protection Among Responders at the World
Trade Center Site--New York City, September
2001”

New England Journal of Medicine, Sept. 12th.
“Cough and Bronchial Responsiveness in
Firefighters at the World Trade Center Site”

NY Daily News, Sept. 9th. “LIGHTS OUT
Embracing Life, city firefighters enroll in a new
anti-smoking program. Quitting Time for
FDNY Firefighters”

NY Times, Sept. 10th. “Threats and
Responses: Rescuers Health: Lung Ailments
May Force 500 Firefighters off job”

NY Newsday, Sept. 10th. “Report: Many
Sapped by ‘WTC Cough’; Hundreds on med-
ical leave, restricted to light duty”

OCTOBER

BHS Health
Connections
newsletter debuts

October 12th
Memorial Day
Service. Plaque
dedication and
Medal
Ceremony at
Madison Square
Garden

NY Newsday,
Oct. 1st.
“Assessing the
scope of WTC
ailments: Experts
study how lung
ills may worsen”

NOVEMBER

Joint labor-
management
initiative for
WTC CD 73
Exposure
Reports

DECEMBER

Since
9/11/01,
1000 clients
at BHS for
respiratory
treatment

Since
9/11/01,
4000 clients
have come
to CSU

**NY Daily
News**,
Dec 15th.
“WTC Study:
Workers Still
Gasping for
Air; half of
screened res-
cuers suffer
ailments”

- BHS Programs/Activity
- BHS Press Clippings
- BHS Published Scientific Articles

BHS WTC PROGRAM TIME LINE—September 2001-April 2007

2003

JANUARY

NY Daily News, January 24th. "He'll Hear from Bravest. They want 9-11 aid from Bush at State of Union"

FEBRUARY

Am. J. Resp. Crit. Care Med., February 2003. "Persistent Hyperreactivity and Reactive Airway Dysfunction in Firefighters at the World Trade Center"

MAY

NY Daily News, May 25th. "Sept. 11 Horror Haunts Heroes: physical, mental trauma surfacing"

JULY

First anniversary of Tobacco Cessation Program--more than 600 members and families treated with a 50% success rate

SEPTEMBER

IAFF Annual Health Convention--WTC Health Effects

Environmental Health Perspectives, September 2003. "Biomonitoring of Chemical Exposure among New York City Firefighters Responding to the World Trade Center Fire and Collapse"

OCTOBER

October 15th. First BioPOD exercise successfully completed

Retired members are welcomed back for WTC follow-up medicals

Dr. Weiden testifies on WTC Health of first responders to Congress

DECEMBER

James E. Olsen Foundation provides BHS w/10,000 colon cancer screening kits

FDNY, 2003. "Rising to the Challenge: The Counseling Service Unit of the Fire Department of New York Moves Forward After September 11, 2001"



BHS WTC PROGRAM TIME LINE—September 2001-April 2007

2004

JANUARY

Second BHS 9/11 Behavioral Health Screen sent to UFOA members and UFA retirees

MARCH

Smallpox Vaccination Program begins for health care workers and first responders

APRIL

\$90 million federal grant for WTC Consortium--\$25 million to FDNY-BHS for medical monitoring for 5 years (2004-2009)

Chest, April 2004. "Symptoms, Respirator Use, and Pulmonary Function Changes Among New York City Firefighters responding to the World Trade Center Disaster"

MAY

NY Daily News, May 24th. "1,700 Sue Over 9-11 Sickness Bravest, Finest cite work at WTC and Fresh Kills"



SEPTEMBER

9/11 World Trade Center Health Effects Conference at NYU

Dr. Prezant speaks on "Airway and Lung Disease among FDNY Firefighters"

Dr. Kelly speaks on "Mental Health of FDNY Firefighters"

NOVEMBER

November 11th. Second Annual BioPOD exercise successfully completed

NIOSH WTC Medical Monitoring Steering Committee begins

Joint labor-management partnership with FDNY and Mt. Sinai NY/NJ WTC Health Consortium, including Bellevue Hospital

Environmental Health Perspectives, November 2004. "Induced Sputum Assessment in New York City Firefighters Exposed to World Trade Center Dust"

2005

JUNE

American Red Cross Liberty Disaster Relief September 11th Fund Recovery Grant--\$5.6 million for FDNY-BHS WTC Medical Treatment (7/05-7/07)

Crit. Care Med., June 2005. "Bronchial hyper-reactivity and other inhalation lung injuries in rescue/recovery workers after the World Trade Center collapse"

Curr. Opin. Pulm. Med., June 2005. "Pulmonary disease in rescue workers at the World Trade Center site"

AUGUST

FDNY-BHS begins Enhanced WTC Medical Monitoring Version 2

BHS begins increasing staff size for enhanced medicals

SEPTEMBER

FDNY-BHS Hurricane Katrina relief pre- and post-deployment medicals



NOVEMBER

5600 invitational letters to retirees to rejoin the WTC Medical Monitoring Program

November 10th. Third Annual BioPOD exercise successfully completed

- BHS Programs/Activity
- BHS Press Clippings
- BHS Published Scientific Articles

BHS WTC PROGRAM TIME LINE—September 2001-April 2007

2006

JANUARY

FDNY Commissioner meets key Congressional members for WTC medical funding

The Chief, January 20th. "Link Deaths of 3 Firemen, Cop to WTC Site; Health officials Urge Screening, Offer Free Treatment"

The Chief, January 27th. "Unions Call for Death benefit in Post-9/11 Cases; Wary of Growing Toll Among responders to WTC Site"

FEBRUARY

Dr. Kelly and Dr. Prezant testify before Congress for WTC treatment dollars

Retiree WTC Medical Monitoring Program officially begins

NY Daily News, Feb. 19th. "Clear the Air on 9-11 Health"

MARCH

BHS World Trade Center Medical Monitoring Program Website launched

Dr. John Howard named Coordinator of WTC Programs, announces multi-million-dollar federal grant will be awarded in late 2006 for FDNY BHS to expand WTC treatment

NY Post, March 9th. "\$75M fund to treat 9/11 Cops and Firemen"

APRIL

Chest, April 2006. "Tobacco Free with FDNY" The New York City Fire Department World Trade Center Tobacco Cessation Study

MAY

NY Times, May 2nd. "'Teachable' 9/11 Moment Helped Smokers Quit"

NY Post, May 15th. "Heroes' Breath toll--9/11 Sucks 12 Years from Bravest Lungs"

NY Times, May 16th. "Firefighters' Lung Capacity Suffered after 9/11 Work, Study shows about 10 times usual loss"

NY Post, May 22nd. "Medics Kids Most Shaken After 9/11"

JUNE

NY Newsday, June 1st. "The Responders Health Woes: Their 9/11 Plague: Almost 5 years after the terror attacks, new, critical cases are surfacing"



BHS WTC PROGRAM TIME LINE—September 2001-April 2007

2006 & 2007

JULY

Dr. John Howard, NIOSH Director and WTC Health Coordinator, visits FDNY-BHS site

NY Daily News, July 22nd. "Abandoned Heroes"

NY Daily News, July 23rd. "The Fatalities Among the Forgotten"

NY Daily News, July 24th. "Death Sentence"

NY Daily News, July 27th. "Proof of lung woes Docs detail pain of WTC workers"

AUGUST

More than 1100 retirees receive WTC monitoring medical in first 6 months. FDNY receives \$1.5 million from NIOSH to continue CSU treatment centers

Am. J. Resp. Crit. Care Med., August 2006. "Pulmonary Function After Exposure to the World Trade Center in the New York City Fire Department"

Editorial published in *Am. J. Resp. Crit. Care Med.*, August 2006; 174:235. *The World Trade Center Collapse A Continuing Tragedy for Lung Health?* By Balmes J.R.

NY Newsday, August 2nd. "Study: 9/11 responders lungs impaired"

NY Post, August 9th. "FDNY to Take Closer Look at Heroes' Health"

The Chief, August 11th. "Cites Impact on Health: Clinton: Feds must help 9/11 workers"

SEPTEMBER

5th Anniversary of September 11th

DOHMH WTC Clinical Treatment Guidelines for Adults Exposed to WTC (FDNY and Mount Sinai co-authors)

Comm. Scoppetta testifies at U.S. Congress on WTC health effects Sept. 8th

Mayor Bloomberg forms WTC Health Panel

NOVEMBER

FDNY receives \$20 million supplement from NIOSH to begin free medication program and expand treatment

DECEMBER

BHS begins WTC treatment with free medications

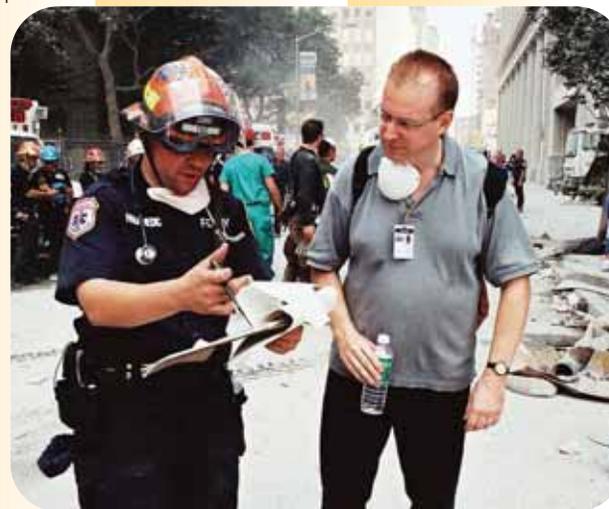
FEBRUARY
MARCH
APRIL

February 13th. Mayor's WTC Panel releases report, "Addressing the Health Impacts of 9/11"; outlines annual health and mental health treatment and monitoring recommendations

Deputy Mayors Linda Gibbs and Edward Skyler give testimony to U.S. Congress

March 21st. Mayor Bloomberg testifies before U.S. Senate for WTC treatment programs

Chest, April 2007. "WTC Sarcoid-Like Granulomatous Pulmonary Disease in NYC Fire Rescue Workers"



Aerial view of Ground Zero during recovery operations phase.

