

Mount Sinai inside



FROM LEFT: Juan Wisnivesky, MD, DrPH, and Philip J. Landrigan, MD, MSc, whose study on 9/11 responders appears this month in *The Lancet*

New Study Documents Illnesses in 9/11 Responders

The Mount Sinai Medical Center, known for its pioneering work in occupational lung disease, assumed a leadership role in treating and documenting the health of first responders in the weeks following the collapse of the World Trade Center (WTC) towers when many began coughing and experiencing breathing problems. That documentation—culminating in a nine-year study of more than 27,000 people involved in rescue and recovery, cleanup, and restoration of essential services—was published this month in *The Lancet*.

The findings show that within nine years, nearly 42 percent of the WTC workers had impaired lung function. Those who arrived on the scene first received the greatest exposure to dust and smoke, and the most severe health damage. Plumes of smoke from burning jet fuel exposed the workers to toxins such as benzene, dioxin, and polyaromatic hydrocarbons. And, when the WTC towers collapsed, asbestos, lead, glass fibers, hydrochloric acid, polychlorinated biphenyls, and other caustic chemicals were released into the air.

“We have observed that 30 percent to 40 percent of rescue and recovery workers developed physical or mental

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\$4.3 Billion in Federal Funds To Treat Responders

Members of The Mount Sinai Medical Center recently hosted local and national politicians, union officials, and community advocates in Stern Auditorium to celebrate the long-awaited passage and implementation of the James Zadroga 9/11 Health and Compensation Act. The law provides \$4.3 billion in federal funding to treat and monitor the health of World Trade Center (WTC) responders, and will ensure a steady stream of funding for the WTC Health Program. Prior to the Zadroga Act, the health care costs of responders were covered under ad hoc grants that could be reduced or discontinued on a year-to-year basis.



New York City Mayor Michael Bloomberg spoke at the Mount Sinai event to celebrate the funding.

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New Study Documents Illnesses in 9/11 Responders (continued from page 1)

conditions and that there was a high level of co-morbidity,” says the study’s lead author, Juan Wisnivesky, MD, DrPH. Dr. Wisnivesky is Vice Chair for Research, Department of Medicine, and Associate Professor in the divisions of General Internal Medicine, and Pulmonology, Critical Care and Sleep Medicine.

The study found that 27.6 percent of responders had asthma; 42.3 percent had sinusitis; and 39.3 percent had gastroesophageal reflux disease, or GERD (see chart). Rates of post-traumatic stress disorder (PTSD), particularly among the non-police responders who reached the site first, were similar to those of U.S. war veterans, at 31.9 percent. The rate of depression among this group was 27.5 percent. At the time of the September 11, 2001, attacks, most of the responders were men in their late 30s, who were generally in good health.

“Many men and women who worked in the rescue and recovery efforts are still sick today, a decade later, as a consequence of their service,” says Philip J. Landrigan, MD, MSc, Dean for Global Health, and the Ethel H. Wise Professor and Chair of the Department of Preventive Medicine at The Mount Sinai Medical Center. Dr. Landrigan was the Principal Investigator and a senior author of the study, which involved four other medical centers in the New York area that worked with Mount Sinai and formed the World Trade Center Medical Monitoring and Treatment Program—now known as the World Trade Center Health Program. “The same dust that caused coughing left its imprint on the lungs in the form of scarring and inflammation, and that has translated into asthma and other forms of lung disease,” says Dr. Landrigan. The WTC program continues to treat and track the medical needs of the responders, following them for cancer and other late-manifesting illnesses.

and volunteers who worked at Ground Zero, the Staten Island Landfill, and the barge-loading piers received treatment at Mount Sinai or one of the other medical centers in the program. The Fire Department of New York had its own treatment and monitoring program for firefighters. It is estimated that more than 50,000 workers were involved in the aftermath of 9/11.

The study’s authors say the experience of 9/11 has raised awareness about the need to plan for future disasters by anticipating the likelihood that persistent physical and mental illness in rescue workers will occur.

Michael A. Crane, MD, Medical Director for the Mount Sinai WTC Health Program, says the study results “demonstrate again that this was a true blow to the health of the workers, and that they have suffered inordinately from it. These folks ran toward danger. They are the heroes.”

Rates of post-traumatic stress disorder, particularly among the non-police responders who reached the site first, were similar to those of U.S. war veterans.

Mount Sinai’s leadership role in occupational medicine—established in the 1960s when Irving J. Selikoff, MD, led groundbreaking research that linked asbestos exposure to lung cancer—made it the medical center of choice for the 9/11 rescue workers who were beginning to get sick.

Police officers, paramedics, iron workers, railway tunnel workers, telecommunications workers, medical examiners, sanitation workers,

THE 9/11 STUDY POPULATION				
CUMULATIVE INCIDENCE (%) YEAR POST-SEPTEMBER 11, 2001				
CONDITION		1	5	9
PHYSICAL HEALTH	ALL RESPONDERS			
	Asthma	13.7%	21.1%	27.6%
	Sinusitis	18.0%	31.2%	42.3%
	GERD	10.7%	25.4%	39.3%
MENTAL HEALTH SYMPTOMS	Abnormal Spirometry (Impaired Lung Function)	23.7%	29.1%	41.8%
	NEW YORK CITY POLICE			
	Depression	1.7%	3.7%	7.0%
	PTSD	2.5%	5.7%	9.3%
	Panic Disorder	2.3%	4.4%	8.4%
	OTHER RESPONDERS			
	Depression	10.8%	17.4%	27.5%
	PTSD	12.8%	22.6%	31.9%
	Panic Disorder	5.0%	12.8%	21.2%

Emergency Preparedness, Post-9/11

“September 11 became the pivotal event in strengthening and systematizing readiness at all institutions, including hospitals,” says Kevin Chason, DO, Mount Sinai’s Director of Emergency Management and Pre-Hospital Care. “It can be an event like 9/11, or a naturally occurring one like Hurricane Irene, but the response will need to be the same.”

In advance of Hurricane Irene, for example, Mount Sinai Medical Center leadership in Manhattan and Queens set the institution’s Emergency Operations Plan in motion on Friday, August 26, and the Incident Command

Center was activated on Saturday, August 27, and remained in effect through Sunday, August 28, to assure that hospital operations ran smoothly. The Medical Center had sufficient supplies and resources to meet the needs of patients and staff during the course of the storm. In addition, hundreds of medical students, residents, fellows, and interns volunteered to assist clinical and nonclinical staff. *Inside Mount Sinai* will feature these efforts in an upcoming issue.

Helping to make this all possible is an expansive communications system Mount

Sinai employs during emergencies that has different levels of notification and activation. It has the capability to deliver immediate messages by phone, text, and email to thousands of users that include not only Mount Sinai leadership and staff, but also city and state officials, according to Dr. Chason. “Emergency preparedness is about putting systems in place, having information available, communicating, and getting the best resources as quickly as possible to help us respond to these events,” adds Dr. Chason.

\$4.3 Billion in Federal Funds To Treat Responders (continued from page 1)

Mount Sinai is a leader in treating and tracking the health of approximately 20,000 responders who developed mental and physical complications as a result of their recovery efforts at Ground Zero, on the loading docks, and at the Staten Island Landfill where debris was taken.

“Today is a good day for New York. It’s a good day for our country. And our department is proud to provide a program that is caring for those whose courage, compassion, and resilience bolstered our nation in our time of need,” said Kathleen Sebelius, Secretary of the U.S. Department of Health and Human Services, who spoke at the event.

Attendees thanked U.S. Representative Carolyn B. Maloney (D-NY), who was a member of the House 9/11 Commission, and Jerrold L. Nadler (D-NY), whose district encompasses the World Trade Center site, for their persistent efforts in getting the Zadroga bill passed after facing stiff opposition in Congress. Both legislators also were in attendance.



Kathleen Sebelius, Secretary, U.S. Department of Health and Human Services, toured the WTC Clinical Center of Excellence at Mount Sinai with Michael A. Crane, MD, Medical Director for the Mount Sinai WTC Health Program.

“Today’s ceremony is the culmination of 10 years of struggle by so many people,” said Rep. Nadler. “We will no longer have to fight annually for an appropriation.”

Kenneth L. Davis, MD, President and Chief Executive Officer of The Mount Sinai Medical

Center, said Mount Sinai’s legacy as a pioneer in the field of occupational medicine has been continued under the leadership of Philip J. Landrigan, MD, MSc, Dean for Global Health and the Ethel H. Wise Professor and Chair of the Department of Preventive Medicine. “For this reason, Mount Sinai has been so prominently engaged in treating the responders,” said Dr. Davis. “It is in our DNA.”

Until the law was passed, Mount Sinai and the other institutions in the WTC program “operated under the risk that the funding might dry up,” New York City Mayor Michael Bloomberg told the audience. “Today, that uncertainty has been lifted. The funding will cover vital research. Patients will have peace of mind. There is no way we can ever fully repay the first responders who charged into the buildings at the World Trade Center. But we can give them the care they need and the care they deserve. I am proud to see that this is a responsibility that the entire nation has assumed.”



LEFT PHOTO: U.S. Representative Carolyn B. Maloney (D-NY); CENTER PHOTO, FROM LEFT: U.S. Representative Charles B. Rangel (D-NY) and Peter W. May, Chairman, Boards of Trustees, The Mount Sinai Medical Center; RIGHT PHOTO: New York City Police Commissioner Raymond W. Kelly

A Multidisciplinary Approach to Care



9/11 responder Gabriele Pacino

On September 11, 2001, construction jobs throughout New York City were halted as ironworkers, welders, steelworkers, plumbers, machinists, asbestos workers, carpenters, electricians, pipe fitters, and other highly-skilled laborers were needed at Ground Zero. At the time, Gabriele Pacino, an Italian immigrant, was a 44-year-old member of the NYC Plumbers Local Union Number 1

who was working that day at Manhattan’s Columbus Circle when his foreman asked for volunteers to help at “the pile” that was the World Trade Center (WTC).

With gloves and a flashlight, he was dispatched to be part of the massive cleanup effort that would remove an estimated 1.5 million tons of concrete, steel, and other building debris from Ground Zero. He worked 12-hour days for the first five days of the cleanup effort. “I felt like I was giving back to this country what they’d given me. That’s why I did it,” he says.

Three years later, Mr. Pacino was having persistent lung infections and 9/11 nightmares, and his family doctor referred him to Mount Sinai’s

World Trade Center Health Program, where he was given a complete medical evaluation. Mr. Pacino was diagnosed with WTC-aggravated chronic obstructive pulmonary disease, gastroesophageal reflux disease, allergic rhinitis, sinusitis, and post-traumatic stress disorder.

“*At Mount Sinai, everybody treats me like a human being, like family.*”

- GABRIELE PACINO

“What the World Trade Center program provides is a well-integrated, multidisciplinary approach to care,” says Rafael E. de la Hoz, MD, Associate Professor, Preventive Medicine, and Medicine (General Internal Medicine), who is one of several physicians treating Mr. Pacino. His medical team at Mount Sinai is led by Laura A. Bienenfeld, MD, MPH, Assistant Professor, Preventive Medicine, and Medicine (General Internal Medicine), and also includes Michael R. Shohet, MD, Assistant Clinical Professor, Otolaryngology.

Mr. Pacino expresses his appreciation often for the medical care he is still receiving. “At Mount Sinai, everybody treats me like a human being, like family. I feel comfortable here. They do a lot for us.”

Events

Employee Benefits Fair

The Human Resources Department invites all faculty and staff to its annual Employee Benefits Fair. Meet benefit vendors and learn about 2012 benefit changes. Raffles, pick-up giveaways, and snacks will also be available.

Wednesday, September 14

8 am - 3 pm

Annenberg West Lobby

Basic Science Lecture Vascular Surgery

Bruce Darrow, MD, PhD, Assistant Professor of Medicine (Cardiology), presents "Pre-Operative Cardiac Evaluation of the Vascular Surgery Patient."

Friday, September 9

7 - 8 am

5 East 98th Street
Fifteenth Floor
Conference Room

The Tisch Cancer Institute Frontiers in Oncology Seminar

Carlo M. Croce, MD, John W. Wolfe Chair in Human Cancer Genetics, Ohio State University Comprehensive Cancer Center, presents "Causes and Consequences: MicroRNA Dysregulation in Cancer."

Monday, September 19

4 - 5 pm

Goldwurm Auditorium

Grand Rounds Geriatrics & Palliative Medicine

Gary Rodin, MD, Professor of Psychiatry, University of Toronto, presents the Claude D. Pepper Older Americans Independence Center Grand Rounds, "The Psychological Impact of Advanced and Terminal Disease: Recent Findings and New Perspectives."

Thursday, September 8

5 - 6 pm

Annenberg 10-30

Lecture Neurosurgery

Ossama Al-Mefty, MD, Professor of Neurosurgery, Harvard University and Brigham and Women's Hospital, presents the Dr. Leonard I. Malis, MD, Endowed Lectureship, "Petroclival Meningioma: Malis Conquered Challenge."

Wednesday, September 21

8 am

Annenberg Board Room
Fifth Floor



Inside Mount Sinai

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Announcement

Faculty Headshots for Web Profiles

For those who have not yet had a photo taken for their web profile, or would like a new, color headshot, the next Headshot Session will be on Thursday, September 15, from 8:30 am - 5 pm. No appointment is necessary, but a Mount Sinai ID is required. Those who bring a USB Flash Drive can take their photos with them. To learn more, contact Susanne Erni at 212-731-7821.

Thursday, September 15

8:30 am - 5 pm

Guggenheim Atrium

Under the stairs

9/11 Remembrances

"REMEMBERING 9/11 AND PLANNING FOR THE FUTURE: A SYMPOSIUM"

The Mount Sinai Medical Center will commemorate the 10th anniversary of 9/11 with a symposium on Friday, September 9, from 8:30 am to noon, in Stern Auditorium. The symposium will examine Mount Sinai's role in providing medical assistance to rescue workers and first responders following the collapse of the World Trade Center's landmark Twin Towers, and also the Medical Center's subsequent treatment of more than 20,000 responders. Speakers also will discuss current disaster-planning efforts and the future direction of emergency preparedness and response for health care providers.

Philip J. Landrigan, MD, MSc, Dean for Global Health, and Ethel H. Wise Professor and Chair of the Department of Preventive Medicine at Mount Sinai School of Medicine, will be the moderator. Dr. Landrigan will discuss newly released medical findings about health problems in the responders.

Symposium speakers will include:

Kevin Chason, DO, Director, Emergency Management and Pre-Hospital Care, and Chair of the Symposium Committee

Commander Andy J. Chen, a Regional Emergency Coordinator for the U.S. Department of Health and Human Services

Wayne Keathley, President and Chief Operating Officer, The Mount Sinai Hospital

Stephen Levin, MD, Professor of Preventive Medicine, and Co-Director of Mount Sinai-Irving J. Selikoff Center for Occupational and Environmental Medicine

Mary Ann McLaughlin, MD, Medical Director, Cardiac Health Program, Assistant Professor of Medicine (Cardiology), and Health Evidence and Policy

Garrison Resnick, Director of Outreach and Education, World Trade Center Health Program, Clinical Center of Excellence at Mount Sinai

Jeffrey W. Runge, MD, Former Chief Medical Officer for the Department of Homeland Security

Register at <https://wtcdcc.mssm.edu/911symposium/>. To learn more, contact Rabbi Rafael Goldstein at 212-241-3082 or infopastoralcare@mountsinai.org.

Friday, September 9

8:30 am - Noon

Stern Auditorium

GARDEN OF REMEMBRANCE AND "MEMORY BOARD"

On Sunday, September 11, individuals seeking a reflective place can visit Mount Sinai's Garden of Remembrance in the Annenberg West Lobby, which will also feature a "memory board" made of photographs and photos of mementos from Mount Sinai employees.

Also, on Sunday, a live broadcast from Ground Zero will be aired on flat screens in the Guggenheim Atrium.

Employee Assistance Program and pastoral services are available by calling ext. 47262.

Garden of Remembrance

Sunday, September 11, 8 am - Monday, September 12, 7:30 am

Annenberg West Lobby



"Tiles for America" is a memorial located at Seventh Avenue and Eleventh Street that honors the individuals lost on September 11, 2001.

Photo Credit: Adam Lededer, Flickr