



**Mount
Sinai**

*Selikoff Centers for
Occupational Health*



Prevention and treatment of occupational injuries & illnesses in New York City & the Lower Hudson Valley

July 2017



Letter from the Director

Each year there are more than 200 work-related fatalities and 200,000 occupational diseases and injuries reported across New York State. Unfortunately, these numbers represent only a fraction of the problem because work-related health conditions are underreported. These conditions lead to significant pain and suffering for workers, disrupt careers, and devastate families. They result in a substantial economic burden due to both direct medical costs and indirect costs related to lost production, foregone opportunities, and diminished investment.

New York State is unique in having the only state-funded occupational health clinic network in the United States, providing specialized care and preventive services for workers. The Icahn School of Medicine at Mount Sinai is the proud home of the Selikoff Centers for Occupational Health, a network member, with clinical centers serving the New York City and Lower Hudson Valley regions.

As a World Trade Center Health Program Clinical Center of Excellence, the Selikoff Centers also provide medical monitoring and treatment to more than 22,000 9/11 responders.

With the changing dynamic of the workforce and emerging new occupational and environmental hazards, continued specialized research, training, and clinical care in occupational medicine are more critical than ever.

Thank you for your support and partnership.

Sincerely,

Michael A. Crane, MD, MPH
Medical Director



Aerial view of the Mount Sinai campus in New York City.

TABLE OF CONTENTS



Who We Are 2

Leadership 3

Services 4-5

History 6-7

World Trade Center

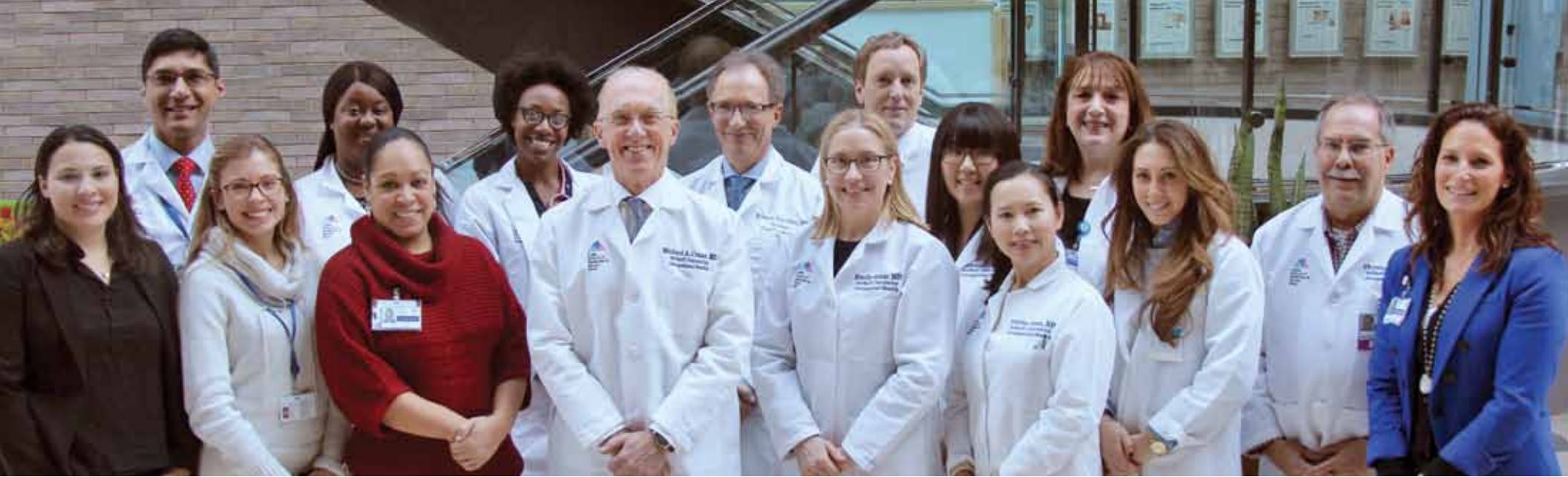
Health Program 8-9

Research 10-11

Residency Program 12-13

Outreach 14-15

History Timeline 16-17



WHO WE ARE

A Reputation for Excellence & Innovation

The Mount Sinai Selikoff Centers for Occupational Health are widely recognized as leaders in the prevention, diagnosis, and treatment of workplace injuries and illnesses. Our multidisciplinary health care team includes physicians, nurse practitioners, industrial hygienists, ergonomists, social workers, and benefits specialists, who provide comprehensive patient-centered services.

Every physician in the Selikoff Centers for Occupational Health is a faculty member of the Department of Environmental Medicine and Public Health in the Icahn School of Medicine at Mount Sinai, which is ranked among the highest in the nation in National Institutes of Health funding-per-investigator. Within the Department, the Division of Occupational and Environmental Medicine is a leader in interdisciplinary research and has made groundbreaking discoveries about occupational-related illnesses during the last 50 years. Today, research efforts focus on finding preventive solutions to workplace injuries and illnesses.

Leadership

Robert O. Wright, MD, MPH

Ethel H. Wise Professor and Chair, Department of Environmental Medicine and Public Health

Roberto Lucchini, MD

Director, Division of Occupational and Environmental Medicine

Director, World Trade Center Health Program Data Center at Mount Sinai

Director, NIOSH Region II Education & Resources Center for New York and New Jersey

Michael A. Crane, MD, MPH

Medical Director

Selikoff Centers for Occupational Health

World Trade Center Health Program Clinical Center of Excellence at Mount Sinai

Laura E. Crowley, MD

Deputy Medical Director

Selikoff Centers for Occupational Health

World Trade Center Health Program Clinical Center of Excellence at Mount Sinai

Winston Kwa, MD

Medical Director, Selikoff Centers for Occupational Health – Lower Hudson Valley Region

John D. Meyer, MD

Director, Occupational Medicine Residency Program

Claudine Holt, MD, MPH

Deputy Director, Occupational Medicine Residency Program

Julia Nicolaou Burns, MPH

Administrator, Selikoff Centers for Occupational Health



**Icahn
School of
Medicine at
Mount
Sinai**

Monitoring and Treatment



WTC Health Program

CDC/NIOSH
Designated WTC
Clinical Center
of Excellence

New York State Occupational Health Clinic Network



Member of the
New York State DOH
Occupational Health
Clinic Network



CDC/NIOSH
Designated TWH
Clinical Center
of Excellence



SERVICES

for Workers in NYC and Lower Hudson Valley

The Mount Sinai Selikoff Centers for Occupational Health are dedicated to providing cutting-edge clinical services with a focus on prevention to keep workers healthy and their workplaces safe. Services include:

Services for Workers: Our physicians are leaders in the field of occupational medicine, providing care to injured and ill workers and retirees in the New York City and Lower Hudson Valley regions. Our highly skilled and multilingual team of physicians, nurse practitioners, industrial hygienists, ergonomists, social workers, and benefits specialists provide comprehensive patient-centered services.

We diagnose and treat occupational diseases, evaluate the work conditions of our patients to determine whether other co-workers may be at risk, and suggest measures to improve work environments. We focus not only on the medical diagnosis but also the likely underlying cause of disease. Identification of an etiologic agent can improve the treatment and management of a condition. More importantly, identification of workplace hazards can also be used to prevent occupational diseases through training and education of workers and their employers, along with establishing effective workplace interventions.

Emotional and financial pressures are common for our patients who face uncertainties related to their health, jobs, and family stability. Our benefits specialists and social workers provide dedicated support services to individuals, helping them navigate the complex workers' compensation system and providing external referrals to additional resources.

World Trade Center Health Program Services: As the site of Mount Sinai's World Trade Center Health Program Clinical Center of Excellence (CCE), the Selikoff Centers continue to provide medical monitoring and treatment services to workers and volunteers who were involved in the rescue, recovery, and cleanup efforts after the attacks on September 11, 2001. These workers were exposed to many toxins at the World Trade Center site and have developed medical and mental health conditions related to their exposures. Mount Sinai's CCE is the largest of the Clinical Centers of Excellence with a responder population exceeding 22,000 patients.

Partnerships for Prevention: We partner with employers, unions, and other organizations to evaluate work environments and establish integrated occupational health protection and health promotion programs. Our medical experts and outreach team members visit organizations, unions, and employers to bring quality training and education programs to the communities served by our clinical centers.

Ergonomics and Injury Prevention: Musculoskeletal disorders are a common source of injury in the workplace. Our ergonomist works with unions and employers to improve work environments and establish programs that reduce the risks of injury. Essential components of our ergonomics initiative are teaching workers how to optimize their workstation set up, how to use equipment properly, and how to implement appropriate strategies and exercises to improve posture.

Industrial Hygiene: Our industrial hygienists work in the clinical setting with occupational medicine physicians to support the evaluation and diagnosis of a patient's disease. Patients participate in a thorough occupational history interview, providing information that helps the clinical team identify the underlying causes of a disease. We then can work with unions and employers to ensure the necessary workplace interventions are in place to prevent further illness for the wider worker population. Our industrial hygienists help develop comprehensive and effective workplace health and safety programs and design site-specific exposure monitoring programs for physical, biological, and chemical hazards. We provide feasible recommendations to control or eliminate hazards and lead specialized trainings across industries.

Major Work-Related Conditions

- Upper extremity cumulative trauma disorders
- Carpal tunnel syndrome
- Epicondylitis
- Spasm or myalgia
- Asbestos-related lung disease
- Asthma & other upper respiratory conditions (chemical exposures/indoor air toxins)
- Heavy metal toxicity (elevated blood lead and/or mercury levels)

Common Exposures

- Asbestos
- Silica
- Metals (lead, mercury, and arsenic)
- PCBs
- Solvents
- Physical hazards



HISTORY

of the New York State Occupational Health Clinic Network



The New York State Occupational Health Clinic Network (OHCN) is unique in the United States as a partially publicly funded, statewide, public health-based network offering clinical and preventive occupational disease services. It was established to address the need for specialized regional occupational health centers open to all state residents for the diagnosis and treatment of occupational diseases following a report by researchers from Mount Sinai and other institutions on the problem of occupational disease in New York State.

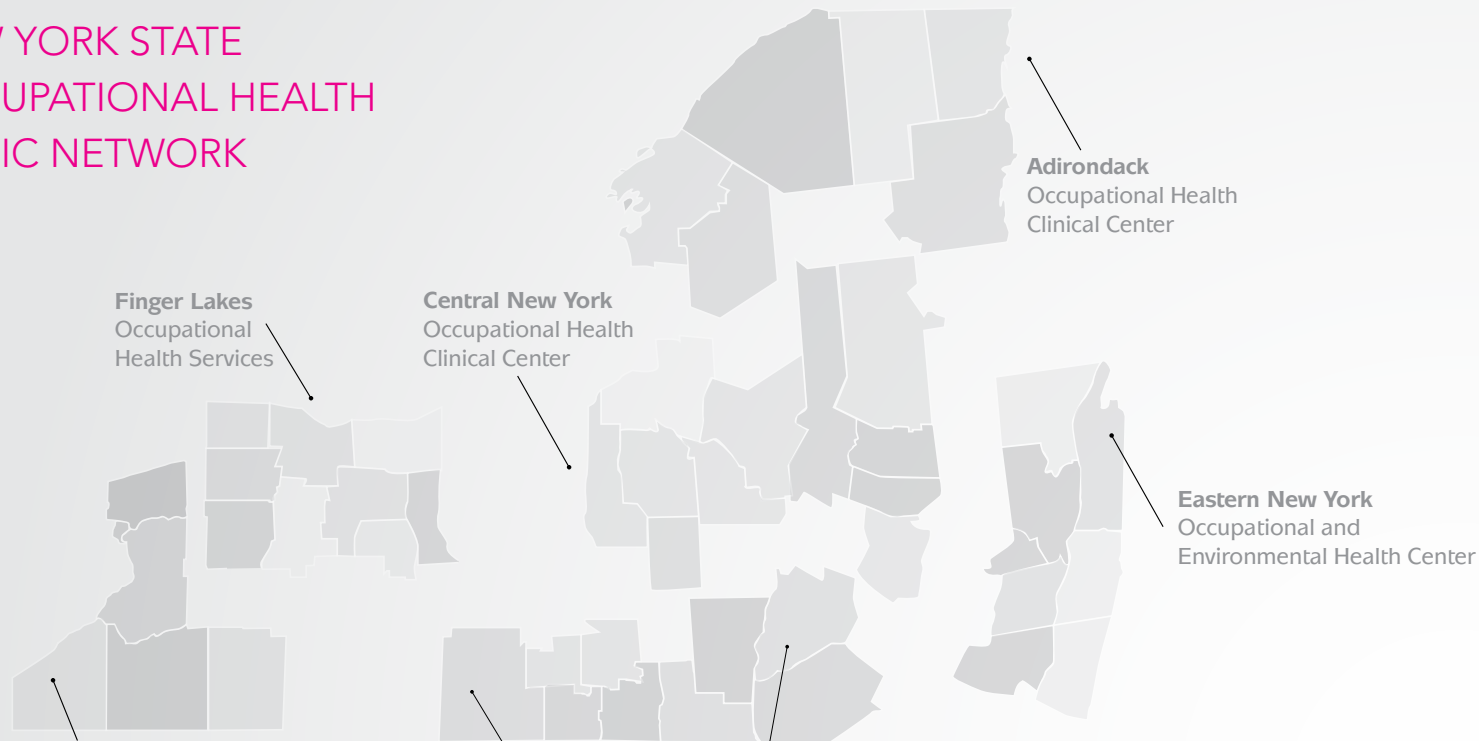
The report concluded that the state's resources, both in clinical facilities and professionals trained in occupational health, were inadequate to meet the public health need. The New York State Legislature appropriated \$1,000,000 from the general fund for six regional clinics in 1987. Funding for the clinics was transferred in 1989 to the Workers' Compensation Board through an amendment of subdivision 2 of section 151 of the Workers' Compensation Law.



Member of the
New York State DOH
Occupational Health
Clinic Network

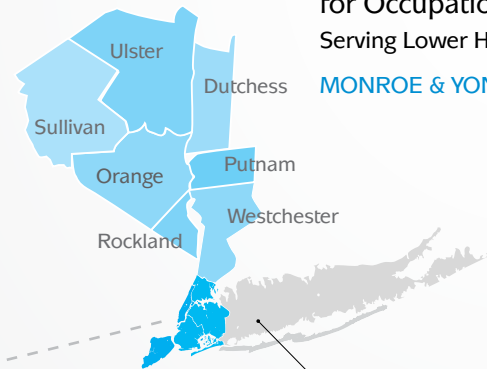


NEW YORK STATE OCCUPATIONAL HEALTH CLINIC NETWORK



LOWER HUDSON VALLEY REGION

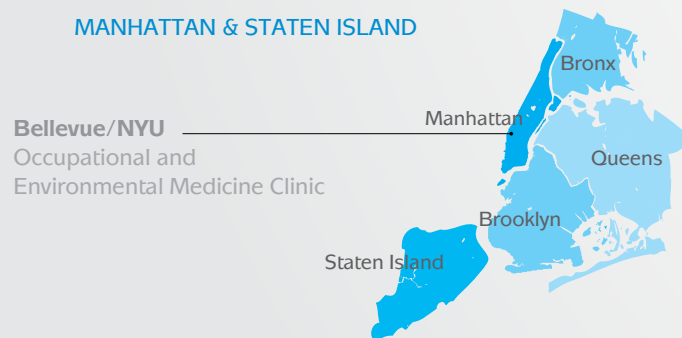
**Mount Sinai Selikoff Centers
for Occupational Health**
Serving Lower Hudson Valley with clinical locations in
MONROE & YONKERS



Occupational and Environmental
Medicine of Long Island

NEW YORK CITY REGION

**Mount Sinai Selikoff Centers
for Occupational Health**
Serving New York City with clinical locations in
MANHATTAN & STATEN ISLAND

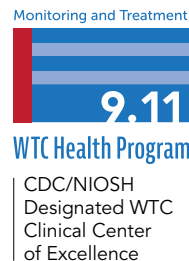




WORLD TRADE CENTER

Clinical Center of Excellence at Mount Sinai

The World Trade Center (WTC) Health Program was established by the James Zadroga 9/11 Health and Compensation Act of 2010 and is administered by the National Institute for Occupational Health and Safety (NIOSH) within the federal Centers for Disease Control and Prevention (CDC). The Zadroga Act provides free medical monitoring, treatment, mental health services, and benefits counseling for 9/11 responders and volunteers. Building on a long tradition of caring for injured and ill workers through the Selikoff Centers for Occupational Health, Mount Sinai is home to the largest WTC Health Program Clinical Center of Excellence (CCE) in the NY/NJ region, serving more than 22,000 responders.



Recent studies, including those authored by Mount Sinai researchers, have documented the persistence of physical and mental health problems experienced by 9/11 responders and volunteers. Some of the problems experienced by responders include: upper and lower respiratory and gastrointestinal conditions, musculoskeletal disorders, mental health conditions, as well as various types of cancer. These studies have reinforced the fact that responders require continuous medical care and long-term follow up.



R HEALTH PROGRAM

Mount Sinai's history of caring for 9/11 responders began in the immediate aftermath of the attacks on September 11, 2001. Recognizing the serious nature of the environmental exposures at Ground Zero, Mount Sinai physicians, experts at other regional occupational medicine clinics, as well as New York City unions and other stakeholder organizations developed a medical screening program to evaluate the health of 9/11 responders.

Medical evaluations began immediately after September 11th at the Mount Sinai Irving J. Selikoff Center for Occupational and Environmental Medicine—known today as the Selikoff Centers for Occupational Health. The Center, a New York State occupational health center of excellence, had nearly 20 years' experience examining workers exposed to toxins such as asbestos, lead, and silica, and was primed to undertake the work of evaluating 9/11 responders.

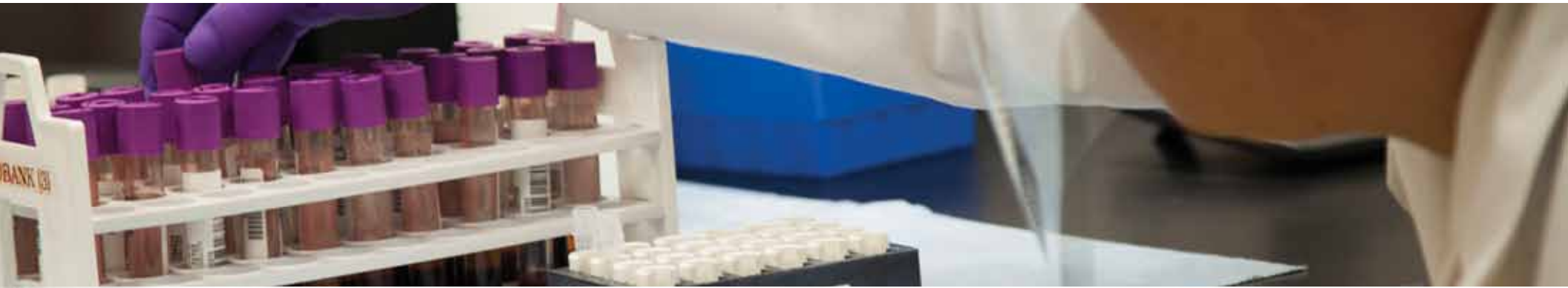
In April 2002, Mount Sinai received federal funding to establish the WTC Worker and Volunteer Medical Screening Program, and examinations began in July 2002. A Mount Sinai-led clinical consortium of occupational health experts conducted standardized examinations throughout the tri-state area, and a national program was set up for those outside the region. In December 2010, the James Zadroga 9/11 Health and Compensation Act was enacted, which provided funding for five years for monitoring, screening, and treatment services for WTC responders and survivors (community members) at designated Clinical Centers of Excellence. A reauthorization bill was passed in December 2015, extending the WTC Health Program for 75 more years.

RESEARCH

More than 50 years of transformative research and innovative practice

Cutting-edge research related to the prevention, diagnosis, and treatment of occupational illness and injury is a cornerstone of the Division of Occupational and Environmental Medicine.

From its establishment in 1960 as the nation's first hospital division of occupational medicine, the Division of Occupational and Environmental Medicine at Mount Sinai has revolutionized worker health prevention and treatment. Today, the Division continues to be a pioneer in worker health. Our faculty collaborates with experts regionally through the NIOSH-funded NY/NJ Occupational Safety & Health Center, nationally through the Association of Occupational and Environmental Clinics and with academic departments at major universities and health care institutions, as well as internationally through the International Commission on Occupational Health, the World Health Organization, and the International Labour Office.



NY/NJ Occupational Safety & Health Center

The Division of Occupational and Environmental Medicine is home to the NY/NJ Occupational Safety & Health Center, a NIOSH-supported consortium of academic institutions that provide teaching, training, and research opportunities in occupational health and safety. Participating institutions are the Icahn School of Medicine at Mount Sinai, CUNY Hunter College, the New Jersey Institute of Technology, New York University, and Rutgers University. The National Institute of Occupational Safety and Health (NIOSH) developed these Educational and Research Centers (ERCs) in 1977 and currently funds 18 university-based centers across the country.





Current Projects

Diesel Exposure

We are exploring community levels of black carbon, which is associated with cardiovascular disease and cancer. Bus depots have proven to be a significant source of particulate matter, generally emitted by vehicles that use diesel. We are monitoring diesel exposure experienced by bus drivers with new wearable devices.

Health Promotion in the Workplace

We evaluate occupational safety and health protections with broader workplace practices in order to advance worker safety, health, and well-being. We work under the guidelines of the Total Worker Health (TWH) Affiliate Program of the Centers for Disease Control and Prevention, of which the Mount Sinai Health System is a member. The Selikoff Centers for Occupational Health are the first designated TWH Clinical Centers of Excellence in the United States.

Manganese

We are investigating the ramifications of overexposure to manganese, which often occurs through certain industrial and agricultural activities. Manganese can affect parts of the brain that are important for motor coordination and cognitive functions. Evidence also suggests a link between occupational and environmental exposure to manganese and Parkinson's disease.

Occupational Health Surveillance

Our ongoing collection and analysis of occupational health data have helped to determine the current risk factors, the industries affected, and the state of occupational health in New York.

Return to Work (RTW) Tool for Primary Care Providers for Low Back Pain Patients

Low back pain (LBP) is the most common cause of disability in the US for adults under the age of 45. Primary care physicians are commonly the first medical practitioners to assess a patient with LBP. A randomized controlled trial found that by implementing a clinical practice guideline in a primary care setting, workers with LBP had improved function and reduced loss-of-work days. This pilot project aims to develop such guidelines in the form of an accessible and adaptable tool.

Silicosis

New York City underground workers are at an increased risk for silicosis with every year of exposure to silica. In light of the link between silica exposure and lung-related diseases, such as pneumoconiosis and lung cancer, as well as autoimmune diseases, we promote regular physical examinations and screenings so that respirators and fit-testing may be employed to limit physiological damage.

Maternal and Fetal Health

Knowing that certain chemicals can damage cognitive and motor functions in the developing brain, we are researching how maternal stress combined with exposure to certain metals during pregnancy may influence infant development. Women's health at work is a special research area with a focus on pregnant working women, specifically in occupations such as construction.

World Trade Center Disaster-Related Health Conditions

We continue to monitor and analyze the health effects on workers and volunteers who assisted in the recovery and cleanup of the World Trade Center site. These workers are at an increased risk of multiple illnesses, including various cancers. We continue to investigate these health manifestations through multi-center monitoring and subsequent data analyses.

RESIDENCY PROGRAM at Mount Sinai



The Occupational Medicine Residency Program at Mount Sinai is an ACGME-accredited training program supported by NIOSH to train up to four residents each year. This two-year residency program requires candidates to have at least one year of training in internal medicine or surgery prior to applying. As part of the training, residents also are enrolled in the Master's of Public Health program and obtain an MPH degree upon completion.

This unique graduate medical education program is the only Occupational Medicine residency program in New York State. Residents gain most of their clinical experience in the clinics of the Occupational Health Clinic Network (OHCN), mainly at the Selikoff Centers for Occupational Health's Manhattan campus. They gain experience evaluating a variety of work-related and environmental cases typically not seen at a general clinic. Residents also work closely with industrial hygienists and participate in site visits at work locations to gain firsthand experience on workplace hazards.

Residents are encouraged to be active in the working community. In addition to interacting with employees and labor groups, they rotate at local OSHA offices in Manhattan and Northern New Jersey, where they participate in onsite investigations and assist in reviewing cases. Residents in the program are also given the opportunity to participate in employee health programs at major corporations in the New York area. There, they contribute to the development of worker safety programs and protocols and to the evaluation of the effectiveness of interventions in the prevention of work-related illnesses and injuries.

A majority of the residency graduates continue to stay active in occupational medicine, taking on leadership roles and dedicating their professional lives to helping injured workers and reducing workplace hazards.



John D. Meyer, MD, Residency Director with resident Aletheia Donahue, MD.



OUTREACH

Community Engagement



COMMUNITY OUTREACH

We are committed to building community awareness about occupational health issues and promoting safe and healthy practices in the workplace. Our medical experts and health and safety specialists visit local community organizations, unions, and employers to bring quality training and education programs to the communities served by our clinical centers. Topics have included: ergonomics, asbestos exposure, and occupational hazards in manufacturing, construction, transportation, and infrastructure repair.

PHYSICIAN EDUCATION

The Division of Occupational and Environmental Medicine holds weekly seminars for physicians and residents. Topics have included sleep apnea, barriers to medication adherence, industrial hygiene, and women's health in the workplace. Participants receive continuing education credits.

CONFERENCES

We have convened several notable conferences, bringing together researchers, physicians, community leaders from labor and industry, government representatives, and other health and safety stakeholders. Recent events include:

- Manganese Health Effects on Neurodevelopment and Neurodegenerative Diseases, 9/25/16 – 9/28/16
- 15 Years Beyond 9/11: Future Implications for the WTC Health Program, 9/14/16
- NY/NJ Occupational Safety and Health for Health Care Workers, 4/1/16
- Symposium & Exhibit Commemorating the 100th Anniversary of the Birth of Dr. Irving J. Selikoff, 10/16/2015
- Conference: Solutions in Safe Patient Handling, 6/30/2015

EDUCATIONAL MATERIALS

Education is the key to preventing workplace injuries and illnesses. In addition to providing trainings and workshops, the Mount Sinai Selikoff Centers for Occupational Health develop easy-to-read handouts that describe the risk factors, signs and symptoms, prevention, diagnosis, and treatment of occupational injuries and illnesses. Materials are distributed at community events and available for free in our clinical centers and on our website. We also disseminate information to our stakeholders via email and social media channels.

Educational Materials are available on the following topics:

Cleaning/Janitorial, Construction and Manufacturing, Ergonomics, Food and Restaurant Service, Laboratories, Nail Salons, Transportation, as well as various Occupational Injuries and Illnesses.

<http://www.mountsinai.org/patient-care/service-areas/occupational-health/resources>

TIMELINE

1960-1985



Dr. Irving J. Selikoff, co-discoverer of a treatment for tuberculosis, who went on to prove the hazards of asbestos and lead a campaign against its use, was a well-known pioneer in the field of preventive medicine. He is considered the "Father of Occupational Medicine" in the United States, and was responsible for establishing Mount Sinai's first environmental health laboratory. He served as its Director from 1960 to 1985. Dr. Selikoff remained active in the field until his death in 1992.

Our internationally recognized clinical center was eventually named after Dr. Selikoff, who is remembered for his seminal research on asbestos-related illness and his advocacy on behalf of the working class. He played a key role in the establishment of the two most important national agencies dealing with worker health prevention and treatment — the National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety & Health Administration (OSHA).

The Mount Sinai Selikoff Centers for Occupational Health

1987 The final report, "Occupational Disease in New York State," was presented to the New York State Legislature.

The conclusions highlighted:

- Work-related disease was a significant public health problem, claiming the lives of 5,000-7,000 New Yorkers each year.
- Work-related illnesses were estimated to total 100,000 per year, with a cost to the state's economy of \$600 million annually.
- State resources, both in terms of clinical facilities and trained professionals in occupational health, were woefully inadequate in meeting the public health need.

Later that year, the New York State Legislature approved funding to create a unique statewide network of occupational health clinics.

1960

1980

1980s

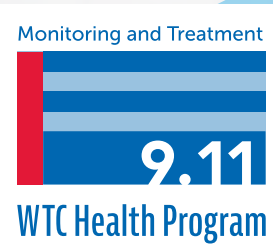
1990

In the mid-1980s, a broad coalition of occupational safety and health specialists, public health advocates, and labor and civic leaders urged the New York State Legislature to commission a study of the wide problem of occupationally-related diseases in New York. This study was undertaken by Mount Sinai School of Medicine physicians.



2013 In September 2013, the New York State Occupational Health Clinic Network (OHCN) celebrated its 25th Anniversary, hosted by Mount Sinai Selikoff Centers for Occupational Health, with a two-day conference at the New York Academy of Medicine.

2001 Immediately following the attacks of 9/11, the Centers mobilized and began examining World Trade Center (WTC) responders. The initiative grew to become the WTC Health Program, funded through the Centers for Disease Control and Prevention/NIOSH, and today provides monitoring and treatment to more than 66,000 workers who participated in the rescue, recovery, and clean-up efforts related to this disaster.



1987-1988

Services expanded dramatically with permanent funding from the New York State Department of Health and incorporation of the New York State Occupational Health Clinic Network (OHCN). The OHCN then included 11 Clinical Centers of Excellence in Occupational Medicine across New York State, organized into regions.

New York State Occupational Health Clinic Network



On November 4, 2014, NIOSH designated the Mount Sinai Selikoff Centers for Occupational Health as the first Total Worker Health (TWH) Clinical Centers of Excellence in the nation. The TWH Program supports the development and adoption of research and best practices that emphasize opportunities to sustain and improve worker safety and health through a primary focus on the workplace. The TWH interventions integrate protection from work-related safety and health hazards with health promotion to advance worker well-being.

2015

On October 16, 2015, New York Representative Congresswoman Carolyn Maloney, Dr. David Michaels, Assistant Secretary of Labor for Occupational Safety and Health and Director of OSHA, Dr. John Howard, Director of NIOSH, along with community leaders, joined faculty from the Mount Sinai Selikoff Centers for Occupational Health to dedicate the newly renovated clinical center in Manhattan. A fourth clinical center was also opened that year in Monroe, New York.



2016

2016



On September 25-28, 2016, Mount Sinai hosted MANGANESE2016, an international conference on the neurotoxicity and prevention of adverse manganese health effects. Manganese is a metal which, when inhaled or ingested, can accumulate in the blood stream and brain, where it can lead to lasting damage. It is generally used in the production of steel and other metal manufacturing, making workers in these industries especially susceptible to manganese-related health conditions. The conference yielded state-of-the-science discussion of what is known, and identified information gaps, about the health effects of manganese exposure. It was attended by more than 150 representatives from academia, government, industry, and labor from 19 countries.



**Mount
Sinai**

*Selikoff Centers for
Occupational Health*

Excellence in the prevention, diagnosis, and
treatment of work-related injury and illness.

For an appointment or more information:

www.mountsinai.org/selikoff

888.702.0630



Follow us on Twitter: [@SinaiOccMed](https://twitter.com/SinaiOccMed)



Like us on Facebook: facebook.com/workerhealth

NEW YORK CITY

MANHATTAN CLINICAL CENTER

1468 Madison Avenue
Annenberg Building, 3rd Floor
Manhattan, NY 10029

STATEN ISLAND CLINICAL CENTER

2052 Richmond Road, Suite 2A
Staten Island, NY 10306

LOWER HUDSON VALLEY

MONROE CLINICAL CENTER

745 Route 17M, Suite 103
Monroe, NY 10950

YONKERS CLINICAL CENTER

1020 Warburton Avenue, Suite 1
Yonkers, NY 10701