### World Trade Center

### Health 2016 Annual Report Registry







### Letter from the Director

### Dear Enrollees:

This past fall we observed the 15th anniversary of the September 11 terrorist attacks. The memory of those who lost their lives cannot be forgotten, and the impact of the disaster on the health of those who were exposed is still a concern today.

Your participation in our surveys helps make our reports possible. It allows us to get a more complete picture of the health effects of 9/11 and helps to inform 9/11-related health care. The World Trade Center Health Registry continues to encourage enrollees who report 9/11-related symptoms and conditions to apply to the World Trade Center (WTC) Health Program for monitoring and/or treatment.

In this report, you will find recent Registry findings on cancer, gastroesophageal reflux disease, asthma, posttraumatic stress disorder (PTSD), substance use in adolescents and other health outcomes. Videos explaining these findings can be found on our website at nyc.gov/911HealthInfo.

Thank you for your continued commitment to the Registry.

Sincerely,

Mark Farfel, ScD

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Director



## Continuing the Registry's Mission



The National Institute for Occupational Safety and Health has extended the Registry's work to 2021 under the recent re-authorization of the James Zadroga 9/11 Health and Compensation Act of 2010.

### This extension allows the Registry to continue its mission to:

- Identify and track the long-term physical and mental health effects of 9/11 and gaps in care for 9/11-related health conditions
- Respond to enrollees' health concerns and refer enrollees to the WTC Health Program
- Share findings and recommendations with enrollees, the public, the WTC Health Program and policymakers
- Offer guidance to public health professionals in planning for future emergencies

### Need Care for 9/11-Related Health Problems? We're Still Here to Help.

The WTC Health Registry connects enrollees to care for specific 9/11-related health conditions through the World Trade Center Health Program. Since July 2013, the Registry's Treatment Referral Program has reached out to more than 23,000 enrollees and provided WTC Health Program applications and assistance to almost 10,000 enrollees.

### How does it work?

If you, a loved one or someone you know may have a 9/11-related health problem, please call the 9/11 Treatment Referral Program at 888-WTC-7848 (888-982-7848). When you call, specially trained staff will ask you questions about your health problems and explain how to get the appropriate care through the WTC Health Program.

Your referral options depend on your needs, eligibility and how you were affected by 9/11. They include:

- WTC Health Program for Survivors
- WTC Health Program for Responders

### How do I know if I need care?

If you were exposed to the WTC attacks and have some of the following symptoms, you might need care: coughing, wheezing, shortness of breath, sinus congestion, stomach problems, frequent heartburn, depression and anxiety.

### Findings A second of the seco

The Registry published the following findings in the American Journal of Industrial Medicine's special issue for the 15th anniversary of 9/11.



### **Chronic Conditions and Early Retirement and Job Loss**

This study looked at the association between 9/11-related chronic health conditions (with or without PTSD) and early retirement and job loss among non-uniformed rescue and recovery workers. We found that workers with chronic conditions were more likely to experience early retirement and job loss. When workers also had PTSD, they were even more likely to experience early retirement and job loss.

### The Impact of Asthma and Posttraumatic Stress Disorder (PTSD) on Gastroesophageal Reflux Symptoms (GERS)

While GERS, asthma and PTSD have been reported by people exposed to the 9/11 disaster, few studies have explored the connection between the three conditions. Our study found that asthma and PTSD were each linked with the persistence of GERS in enrollees who had symptoms in 2003-04. Asthma and PTSD were also linked to the development of GERS 10 to 11 years after 9/11 in enrollees who did not have early GERS symptoms.

### Cancer Ten Years After 9/11

In previous work we found more cases of prostate and thyroid cancers and multiple myeloma among rescue and recovery workers enrolled in the Registry compared to the general population of New York State. In this 2011 follow-up study, we found that cases of prostate and thyroid cancers remained elevated among rescue and recovery workers. We also found that small—but higher than expected—numbers of skin melanoma were present in both responders and survivors. Cases of female breast cancer and non-Hodgkin's lymphoma were also elevated among survivors.

### Mental Health Status of World Trade Center Tower Survivors

We compared the mental health status of people who were in the World Trade Center towers with those in other surrounding buildings or on the street the morning of 9/11. Those in the towers were more likely to develop posttraumatic stress disorder (PTSD) and binge drink 10 years after 9/11. People who experienced infrastructure challenges (e.g., restricted access to stairways and obstructed exits) and behavioral challenges (e.g., perception of danger, anger and anxiety) were also more likely to develop PTSD.

### Asthma Among Staten Island Fresh Kills Landfill and Barge Workers

Post-9/11 rates of new asthma cases among Staten Island landfill or barge workers were similar to those of other WTC disaster rescue and recovery workers.



### Children's Health

• Substance Use in Adolescents: This study looked at substance use in adolescents who were 0 to 8 years old on 9/11. Adolescents who witnessed a disturbing event on 9/11 were twice as likely to say they had ever had a drink and almost three times as likely to have ever used marijuana. Among adolescents who were 5 years of age or older on 9/11, we found that fear for personal safety during the attacks was associated with having ever smoked cigarettes, used alcohol and/or used marijuana. (Journal of Child & Adolescent Substance Abuse, 2016)



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### **Respiratory Health**

• Lower Respiratory Symptoms:
Approximately 15 percent
of adults included in this
study reported having lower
respiratory symptoms (LRS)
(persistent cough, wheezing,
shortness of breath) 10 years
after 9/11. Enrollees more
likely to have persistent LRS
were those who had higher
exposure to the disaster\*,
had probable PTSD, lacked
a college education and were
obese. Enrollees with persistent
LRS were also more likely
to report poor physical and
mental health and lower quality
of life. (Occupational and
Environmental Medicine, 2016)

### Posttraumatic Stress Disorder

- PTSD and Human Remains
  Exposure: We studied the
  relationship between human
  remains exposure during WTC
  recovery and clean-up work
  and persistent PTSD. We found
  that the risk of having persistent
  PTSD increased the more a
  person was exposed to human
  remains. Of that group, those who
  lacked social support were at
  an even higher risk of persistent
  PTSD. (International Journal of
  Emergency Mental Health and
  Human Resilience, 2015)
- Police PTSD, Depression and Anxiety: Out of police who had probable PTSD\*\* (243 officers, or 12.9 percent of total police enrollees), 21.8 percent had probable PTSD only, 24.7 percent also had depression and 5.8 percent also had anxiety. Nearly half of police with probable PTSD had both depression and anxiety. (American Journal of Industrial Medicine, 2016)
- PTSD Patterns Over Time: We examined long-term patterns of PTSD symptoms and found that one in four civilians who were exposed to the disaster had PTSD at some point during the study period. Some people with PTSD had symptoms that improved; however, most had symptoms that either persisted or got worse over time. PTSD that persisted or worsened was more common among enrollees with low education, low social support and/or high WTC exposure\*, and among enrollees who were unemployed or unable to get the mental health care they needed. (Journal of Traumatic Stress, 2016)

<sup>\*</sup>High exposure includes being caught in the dust cloud on 9/11, and performing rescue and/or recovery work directly after the disaster and/or for more than three months after 9/11.

<sup>\*\*</sup>Probable PTSD means that PTSD was selfreported, and not clinically diagnosed.



### **Recommendations**

- More studies are needed to understand the complex relationships between chronic diseases and PTSD.
- Because physical and mental health conditions are often connected, a coordinated approach to care, like the one used by the World Trade Center Health Program, is recommended for those affected by the 9/11 disaster.
- Disaster response planners should recognize the high risk of PTSD associated with human remains exposure. Planners should include pre-briefing and training for workers before they respond to a disaster.
- Workers should also be offered ongoing psychological support during a disaster response effort, and screening for PTSD and referrals to evidence-based treatment after the response.

### About the Registry

The World Trade Center Health Registry was established in 2002 by the New York City Department of Health and Mental Hygiene and the federal Agency for Toxic Substances and Disease Registry. The National Institute for Occupational Safety and Health has funded the Registry since May 2009.

### **WTC Health Program**

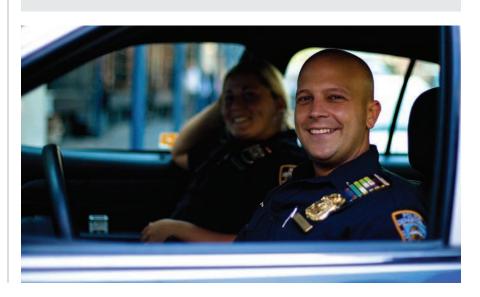
The federal WTC Health Program provides medical services for 9/11-related health problems at no cost to eligible responders and survivors. The James Zadroga 9/11 Health and Compensation Act of 2010 created the WTC Health Program. On December 18, 2015, the program was extended until 2090 through the re-authorization of the Zadroga Act.

If you have any questions about the WTC Health Program, please call 888-982-4748 or email WTC@cdc.gov. For more information about the program, visit www.cdc.gov/wtc/.

### September 11th Victim Compensation Fund (VCF)

The VCF provides compensation for any person (or personal representative of a deceased person) who suffered physical harm or was killed as a result of 9/11, the rescue and recovery operations or the debris-removal efforts that took place after the disaster.

The VCF was also extended under the Zadroga Act, allowing people to submit their claims until December 18, 2020. The law includes important changes to the VCF's policies and procedures for evaluating claims and calculating each claimant's loss. For more information, please visit www.vcf.gov or call 1-855-885-1555.



World Trade Center Health Registry 125 Worth Street, CN-6W New York, NY 10013

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### **Contact Us**

We've recently moved back to our downtown location: 125 Worth Street, CN-6W New York, NY 10013

For more information about the Registry, call us at 866-NYC-WTCR (866-692-9827), email us at wtchr@health.nyc.gov or visit nyc.gov/911HealthInfo.

### Find Us Online:

Visit nyc.gov/911HealthInfo to watch videos about the Registry's recent findings, hear what other enrollees are saying about the Registry and view a complete list of the Registry's publications.

### **Update Your Contact Information:**

Online: https://a816-healthpsi.nyc.gov/wtchr By phone: 866-NYC-WTCR (866-692-9827)

By email: wtchr@health.nyc.gov