Miller, Diane M. (CDC/NIOSH/EID)

From: Landrigan, Philip [phil.landrigan@mssm.edu]
Sent: Thursday, March 24, 2011 5:39 PM
To: NIOSH Docket Office (CDC)
Subject: 226-Implementation of the James Zadroga 9/11 Health and Compensation Act of 2010 (Pub. L 111-347)
Attachments: WTC.pdf

Dear NIOSH Docket Office:

Please find attached letter on Request for Information on Conditions Relating to Cancer to Consider for the world Trace Center Health Program.

Thank you.

Sincerely,

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March 24, 2011

Response: Request for Information on Conditions Relating to Cancer to Consider for the World Trade Center Health Program

[Docket Number NIOSH-227]

Summary. The destruction of the World Trade Center on September 11, 2001, the fires that burned for the next three months, and the subsequent demolition and reconstruction at Ground Zero, the former site of the twin towers, produced an extraordinarily complex mix of airborne pollutants, including many known and suspect carcinogens.[1] The 9/11 responders were exposed to all of these materials, frequently in high concentrations and in complex mixtures that have never previously been encountered.

In previous studies, occupational exposures to each of the carcinogens identified at Ground Zero have been strongly associated with various cancers.[2, 3] The World Trade Center Medical Monitoring and Treatment Program (WTC MMTP) is therefore carefully tracking all reported cancers in responders and is dedicated toward determining if there are linkages between any cancer in responders and the occupational exposures that they sustained. This letter report summarizes our actions to date and our future plans for assessing cancer in 9/11 responders.

Background. Rescue, recovery and reconstruction workers as well as volunteers at Ground Zero were all exposed to multiple airborne pollutants. Organic carcinogens identified in WTC dust and smoke include benzene, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated dibenzodioxins. Inorganic carcinogens such as asbestos and metals were also present. Heaviest exposures occurred among those responders actually enveloped in the dust cloud and among those who worked at the site in the first days after the attacks. Many thousands of additional responders experienced sustained exposures to a mix of carcinogens over the succeeding days, weeks and months.

In 2009, the WTC MMTP published the manuscript "Multiple Myeloma in World Trade Center Responders."[4] The study reported an unusual number of multiple myeloma cases

in World Trade Center responders under the age of 45. As a case series it did not permit the drawing of causal inference. Nonetheless the report underscored the importance of maintaining surveillance for cancer and other emerging diseases in this highly exposed population.

Methods. In June 2010, we participated in an expert meeting with the Fire Department of New York City, New York City Department of Health Registry, nationally recognized biostatisticians, environmental health scientists and cancer epidemiologists to develop strategies and methods that may be utilized to analyze the WTC data for cancer. Currently, the WTC MMTP Cancer Surveillance Team continues to work intensively to confirm all self reported cancers. We have hired a senior, highly experienced nurse who is engaged in the process of interviewing every responder who has reported cancer. She is asking for permission to obtain these responders' medical records from hospitals and physicians so that all reported diagnoses of cancer can be properly verified and classified. We are also linking our data on cancer in responders with State Tumor Registries in NY, NJ, CT, FL, PA and NC. This will enable us to compare data on the numbers of cancers reported by responders with expected numbers of cancers in the general population.

Conclusion. At the World Trade Center Medical Monitoring and Treatment Program, we remain deeply concerned and committed to answering the question of whether cancer is associated with exposures sustained by World Trade Center responders during their 9/11 response work

[1] PJ, Lioy Weisel CP, Millette JR, et al. Characterization of the Dust/Smoke Aerosol that Settled East of the World Trade Center (WTC) in Lower Manhattan after the Collapse of the WTC: 11 September 2001. Environ Health Perspect 110:703-714 (2002)

[2] Clapp RW, Howe GK, Jacobs MM. Environmental and occupational causes of cancer: A call to act on what we know. Biomedicine and Pharmacotherapy. 2007: 61;631-639.

[3] Siemiatycki J, Richardson L, Straif K, Latreille B, Lakhani R, Campbell S, Rousseau MC, Boffetta P. Listing Occupational Carcinogens. Environ Health Perspect. 2004:112(15): 1447–1459

[4] Moline JM, Herbert R, Crowley L, Troy K, Hodgman E, Shukla G, Udasin I, Luft B, Wallenstein S, Landrigan P, Savitz DA. Multiple myeloma in World Trade Center responders: a case series.J Occup Environ Med. 2009 Aug;51(8):896-902.

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