

TerranearPMC Safety Share

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Week of June 17, 2019 – The Aftermath of 9/11

On Tuesday, June 11, 2019, former "Daily Show" host Jon Stewart gave an emotional testimony before a House panel as he called on Congress to reauthorize a fund that compensates victims of 9/11 and their families.

Nearly seven years after that fateful day, many began to suffer from various types of respiratory ailments including the rare cancer mesothelioma while others succumbed to their exposures and died. These conditions brought about the "9/11 Victims Compensation Fund (VCF):" a fund designed to help pay for medical and economic losses. And now, 18 years later, it's running out of money, causing steep cuts unless it is reauthorized.

As of December 2017, the most common conditions certified by the World Trade Center Health Program were rhinosinusitis (sinus/nasal cavity inflammation), gastroesophageal reflux disease (GERD), asthma, sleep apnea, cancer, posttraumatic stress disorder, respiratory disease, chronic obstructive pulmonary disease, depression, and anxiety disorder. The most common cancers were skin cancer and prostate cancer (The World Trade Center Health Program regularly publishes the most commonly certified condition on its website).

According to air pollution experts, the dust created from the collapsed towers was toxic. Thousands of tons of the debris from the collapsed Twin Towers was pulverized concrete; a known source for airborne silica. When silica particles become so small (about 10 microns in diameter) they are referred to as "respirable" and can reach the furthest regions of the lungs (i.e. alveoli) where gas exchange takes place. The condition is known as silicosis and is a debilitating disease. In addition to silica, other materials such as asbestos as well as detectable amounts of lead and mercury were present. There were also levels of dioxins and PAHs from the fires which burned for three months. Many of these materials were dispersed throughout lower Manhattan and have been recognized as being carcinogenic or triggering kidney, heart, liver and nervous system disorders. A case report funded by the National Institute for Occupational Safety and Health (NIOSH) and performed by Mount Sinai School of Medicine observed carbon nanotubes in dust samples and in the lungs of several 9/11 responders. At the same time, there was a lack of understanding of the long-term health implications caused by the smoke and dust in the air and how first responders would be affected.

Without a doubt, I would find it hard to believe that a single American would even think about not doing everything possible to ensure the continued health and well-being of our gallant first responders. Helping these brave men and women who selflessly entered into the area where only the remnants of the World Trade Center Towers stood only hours earlier, and literally charged into our modern "Valley of Death" as England's famed Poet-Laurate, Alfred Lord Tennyson once described in his "Charge of the Light Brigade" deserve America's 100% unwavering support.

But while reading the many articles of our courageous first responders, all too often it appears that a very crucial piece of information has been omitted. The fact is, as soon as news of the World Trade Center Tragedy was reported on our televisions and radios, industrial hygienists (IHs) from around the country were deployed to lower Manhattan and assist the members of the New York Police and Fire Departments with proper donning of respirators. In addition, vendors that specialized with S&H equipment, donated disposable coveralls, gloves, as well as respirators and various types of filters designed to protect persons from the inhalation hazards associated with the building materials. So



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much respirator equipment and materials were sent (for no fee) to Ground Zero that for months afterwards, such supplies were not available for work at other job sites. For months after the 9/11 tragedy, when projects made requests to their vendors for additional HEPA filters or charcoal cartridges, they were told that they were out of stock as all their supplies were donated to the World Trade Center rescue operations.

According to reports from the on-site IH professionals, various air-purifying devices were provided to the first responders while they tried to instruct the wearers on proper donning and doffing to ensure the respirators would properly protect them. However, respiratory protection was rarely used! Responders realized that time was of the essence and that every second was precious. After all, people were trapped in the monumental pile of debris and the difference between a few seconds could be the difference between life and death.

In an article that appeared in the New York Times (dated June 5, 2006), an explanation was provided as to why personal protective equipment (PPE) was not used to the degree in which needed. Based on observations and conversations with the responders, there was an overlying attitude that it would seem to be selfish and unpatriotic in the midst of unimaginable disaster to consider their personal S&H before the victims' rescue. In addition, scorching temperatures on the pile made working in the masks unbearable while making it nearly impossible for the workers to communicate with each other with masks on, so they pulled them down to talk and never placed them back over their mouth/nose. Meanwhile, filters clogged easily in the thick, powdery dust, and replacements were not always readily available: although supplies were plentiful, but distribution lacked effective coordination.

But perhaps the greatest impediments to compliance were the confusing guidelines and minimal enforcement efforts. This was due to too many agencies overseeing the work with overlapping jurisdictions and, at times, contrary policies.

And finally, about a week after 9/11, federal environmental officials announced that it was safe for people to return to Lower Manhattan and that Wall Street could reopen. This caused a misunderstanding as responders thought they had a green light to proceed operations without respirators.

From a "Lessons Learned" perspective, while we can now understand that – in all likelihood - our first responders could have been properly protected from the various types of airborne toxic materials, through a lack of communication between the various agencies, unclear roles and responsibilities, improper donning of PPE, a desire to respond to the immediate safety of the public and ineffective distribution of PPE, the first responders S&H was left compromised. Through proper emergency preparedness – which includes effective implementation of procedures, training and an efficient distribution process of PPE - could our first responders been spared the pain and suffering that they now endure.



If we learn nothing else from this tragedy, we learn that life is short and there is no time for hate - Sandy Dahl, wife of Flight 93 pilot Jason Dahl

