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## **The Economic and Social Costs of Burn Pits on our Soldiers and Society**

Prepared Statement by Dr. Thomas S. Woodson for Burn Pits Congressional Briefing

The other people on the panel can speak on the health consequences of burn pits and the immense trauma our soldiers suffer. I will focus on the economic, social and policy consequences of burn pits. This brief statement cannot detail all the consequences of the burn pits crisis, but I will highlight a few challenges.

First, I will start with the economic impacts related to burn pits. For many, discussing the economic impacts of burn pits seems callous because it is impossible to understand the hurt and pain of having a debilitating disease or losing a family member. My intention is not to minimize the loss people suffer, but to highlight even more consequences of using burn pits.

The challenging part of estimating the economic and social consequences of our soldiers living close to burn pits is that the soldiers and veterans are showing a wide range of symptoms. There are veterans suffering from chronic obstructive pulmonary disease (COPD), cancers, rashes, headaches, tumors, and cardiovascular diseases, and many of our veterans have already died. It will take a dedicated team of many scientists to measure the impacts of burn pits.

For this briefing, I will focus on the most common condition affecting veterans in the Airborne Hazards and Open Burn Pit Registry: hypertension. Hypertension, or high blood pressure, is not a headline grabbing illness, but if it is not controlled, it can lead to heart attacks and strokes. About 36% of the respondents in the registry said they suffer from hypertension (U.S. Department of Veterans Affairs, 2015). These statistics are extremely troubling considering the overall rate of hypertension in the United States is only 29% and the rate for people from 18-39 years old is 9% (Fryar, Ostchega, Hales, Zhang, & Kruszon-Moran, 2017). Over 50% of the veterans in the registry are under 40 (Office of the Under Secretary of Defense, 2008; U.S. Department of Veterans Affairs, 2015), so it is startling that so many young soldiers that were physically fit now suffer from hypertension.

The average cost to treat hypertension in the United States is about \$2000 per year (Kirkland et al., 2018). In addition to medical expenses, people suffering from hypertension miss additional days of work, and while they are at work, they are less productive (Allen, Hines, Pazdernik, Konecny, & Breitenbach, 2018; Unmuessig, Fishman, Vrijhoef, Elissen, & Grossman, 2016). The average productivity loss per person due to hypertension is small compared to other disease, like back pain, but because hypertension is so common, this disease has a large overall impact on companies and the economy. For example, one study surveyed employees in large health care systems and found that 22% of the workers suffer from hypertension (Allen et al., 2018). The



productivity loss for hypertension is only \$126 per year per person, but the overall cost to the large companies is about \$400,000 per year (Allen et al., 2018).

In addition, the family members of the soldiers and veterans suffer emotional, physical and financial stress because they are forced to become caregivers for burn pit victims. Caregivers face their own absenteeism and productivity challenges. A recent study finds that 80% of employees that are also caregivers admit caregiving negatively impacts their productivity (Fuller & Raman, 2017). Another sad effect of caregiving is that caregivers themselves develop illness. Studies find that caregivers have a significantly higher risk of developing hypertension (Capistrant, Moon, & Glymour, 2012). These amplifying effects further harm military families and the wellbeing, safety and security of the country.

These are just some of the costs for one disease. Victims of burn pit exposure suffer from multiple illnesses at the same time which compounds the impact of this crisis.

Another overlooked aspect of the burn pit crisis is the consequence this has on troop readiness. Currently, 6% of the 2.7 million troops deployed after 9/11 joined the registry (April 1, 2019 (U.S. Department of Veterans Affairs, 2019) and 60% of those servicemembers and veterans have decreased exercise tolerance (Falvo, Tseng, Morley, Mitchell, & Helmer, 2017). This means about 104,000 soldiers and veterans are unable to complete some of their normal tasks. That dramatically impacts the effectiveness of our troops. Moreover, if the VA does not treat our service members and veterans with dignity and respect when they fall ill, then it will be much harder to recruit new men and women to join the military. This a serious problem for the country's readiness because at this time, the military has trouble meeting its recruiting goals. For example, in 2018 the Army failed to meet its recruiting quota by about 6,500 troops (Philippss, 2018).

At the global level, burn pits have caused considerable health and environmental damage to our partners overseas and could further destabilize Iraq and Afghanistan which in turn affects US security and diplomacy. This may seem like a remote consequence, but the example of Agent Orange during Vietnam should serve as an important warning for Congress. There are still lingering tensions and problems between Vietnam and the United States over Agent Orange (Ha, 2016; Palmer, 2003). If Congress and the President do not act quickly to rectify the burn pits crisis, this issue could steadily harm our soldiers, veterans, and the general security of Americans.

Thank you

A handwritten signature in blue ink that reads "Thomas S. Woodson".

Dr. Thomas S. Woodson



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