The population health argument against war

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There is ample evidence of a high prevalence of psychopathology among those persons unlucky enough to have lived through war, either as combatants, or, and even more so, as civilians caught in the middle of larger conflicts (1-3). Murthy and Lakshminarayana's article summarizes this evidence cogently and also shows that persons who are socially or economically vulnerable, including children, the elderly, and in many cases women, are more susceptible to the mental health consequences of war, and that ongoing displacement, stressors, or traumas may prolong the course of psychopathology and delay recovery. Although this review focuses on psychopathology, we should not forget that war is also accompanied by substantial mortality and physical morbidity, and, importantly, that there is a strong interrelationship between physical and psychological morbidity: persons who are physically injured are more likely to have prolonged psychopathology (4,5), and conversely, mental illness or injury increases the likelihood of poor physical health (6).

War is a display of force intended to subjugate one group to the will of another. It is perhaps then one of the primary goals of war to inflict harm (physical and psychological) as a means of forcing surrender and a cessation of activities undesirable to the warring party. Although war has long been part of human history and experience, a recent resurgence in between-nation conflict has resulted in substantial political discussion about "just" wars, or wars that are acceptable (7-9). These arguments suggest that war, while potentially having adverse consequences for those involved, is justifiable based on the alternatives. We suggest, however, that the burgeoning evidence documenting the mental and physical health consequences of war, among combatant and noncombatant populations alike, is seldom considered in the calculus leading up to decisions being made about war and its acceptability. Further, consideration of the full scope of the population health consequences of war raises the bar substantially about the conditions under which war is truly justifiable and as such provides a powerful argument against the initiation or perpetration of large-scale conflict.

One of the myths of modern warmaking is that wars can be conducted in a targeted "smart" way, focusing hostilities on armed combatants or political leaders without injuring the population. However, the evidence suggests that it is virtually impossible to conduct war in a way that targets only those who might be fighting back or those responsible for political and military decisions (10,11). The consequences of war inevitably include the deterioration of existing social structures, expose populations to stress and trauma, limit population access to preventive and curative health, and result in elevated rates of psychopathology and physical morbidity in persons who may well not be the intended targets of the conflict. In the vast majority of circumstances, poor population health is an inevitable consequence of war. We would suggest that arguments for just wars need to balance the adverse consequences an intended war will likely have on population health with the ongoing damage to population health in the absence of war.

Although we focus here on population health as an end in and of itself, it is the centrality of health to the achievement of other ends throughout life that in many ways cements the population health argument against war. Health is the underlying precondition for persons to achieve their personal goals and, by extension, achievement of societal goals is predicated on population health. Therefore, through limiting the health of populations, war is effectively limiting the achievement of these populations on all other conceivable fronts. This argues for an appreciation of the fact that the impact of war on societies lingers far after the war itself. Psychological and physical pathology persist for many years after war may have ended and so does the impact of any given war. Unfortunately, our appreciation of a time frame beyond a few years is limited, a limitation that is reinforced by the ever-more-pervasive news media that quickly moves on to the next story once a war is "over". However, war is seldom "over" within any given generation. The health consequences of war persist, and as a result, so do the social and economic consequences that shape all other experiences for a generation that has lived through a war. Perhaps even more alarming, recent studies suggest the inter-generational transmission of psychological trauma (12,13), further reinforcing the pervasive and long-term impact of war.

There is an abundance of accumulating empiric evidence about the social and economic consequences of adverse health. Most obviously adverse health burdens health care systems with a greater volume of need and with the attendant economic costs of providing care to those with psychological or physical morbidity. However, the indirect costs of adverse health are just as important and frequently overlooked. Adverse health is associated with limited productivity, decreased engagement in societal activities, and the imposition of a burden of care-giving on informal, as well as formal, social networks and services (14). The sum total of these costs is difficult to estimate, and is seldom considered, but these costs clearly go far beyond the costs of healthcare or of public health services. Therefore, the economic burden to societies, compounded by the impact of war on population health, must be considered as one of the consequences of war in any calculus about the "justness" or acceptability of any war.

Both overt inter-nation armed conflict as well as more limited wars such as long-term low-intensity conflict are associated with poor mental and physical health in the short and in the long

term. The effect of this increased pathology is pervasive and persistent in the population and has far-reaching social and economic implications for societies at war. Those responsible for public health need to insist that the population health consequences of war are clearly articulated and considered as part of any calculus or public debate about the initiation of war.

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How to prevent turning trauma into a disaster?

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There are many reasons why war does not do good to mankind. Amidst them are mental health consequences. Murthy and Lakshminarayana review studies that demonstrate the psychological impact of hostilities, stress and exposure to shocking events. The message is twofold. War may cause significant and pervasive psychopathology in civilians. At the same time, the majority of people in the theatre are rather resilient. Notwithstanding the war situation, they do not develop problems such as post-traumatic stress disorder (PTSD), anxiety or depression.

This is also seen in military personnel who are deployed in overseas peacekeeping operations. The vast majority of soldiers return home safe and healthy. They are often self-contented. They were able to do the duties they were trained for, they were given an opportunity to contribute to a safer world and they often have experienced bonding with colleagues. The reverse of the medal consists of a small, but significant part of military personnel who are faced with a great diversity of health problems. About one out of every five soldiers develops post-deployment symptoms (1).

Military deployment and trauma are often bracketed together. Problematic health status in military personnel is often attributed to PTSD, not only by laymen. This is not surprising, because the concept of PTSD originates from the problematic aftermath of the Vietnam War. In 1980, PTSD was introduced as a diagnostic entity in the DSM. However, equalling PTSD and military health problems would be simplistic. About a quarter of post-deployment symptoms can be explained by PTSD, but other main concerns are medically unexplained physical symptoms, anxiety, depression and substance misuse.

In the 1990s, the need for a broader view was demonstrated in studies in Gulf War veterans. The American and British army were confronted with large groups of military servicemen, returning from the first Persian Gulf War, reporting ill health. They were dog-tired and suffered from a wide range of symptoms. In fact, these military experienced health complaints which are common in the general population. They suffered the same health problems although much more frequent as compared to civilians and military who were not sent to the Persian Gulf (2).

There was a lot of speculation on and rumour about the causes of Gulf War related illness. An unequivocal causal factor, e.g. exposure to harmful substances, has never been found. At that time, Dutch United Nations (UN) soldiers returned from deployment in Cambodia. Their health was also troublesome. Research showed that 17% of the ex-servicemen suffered from severe fatigue. PTSD was observed in less than 2% (3).

Post-deployment symptoms may be severe, persistent and chronic. They actually show striking similarities with the whether: the state of today is the strongest predictor for tomorrow's situation. A part of Gulf War and Cambodia veterans has significant complaints and is not able to get rid of them. War also leaves tracks in the long-term. Twenty-five years after deployment in Lebanon, about 15% of Dutch UN veterans still reported impaired psychological well-being (4).

Murthy and Lakshminarayana empha-