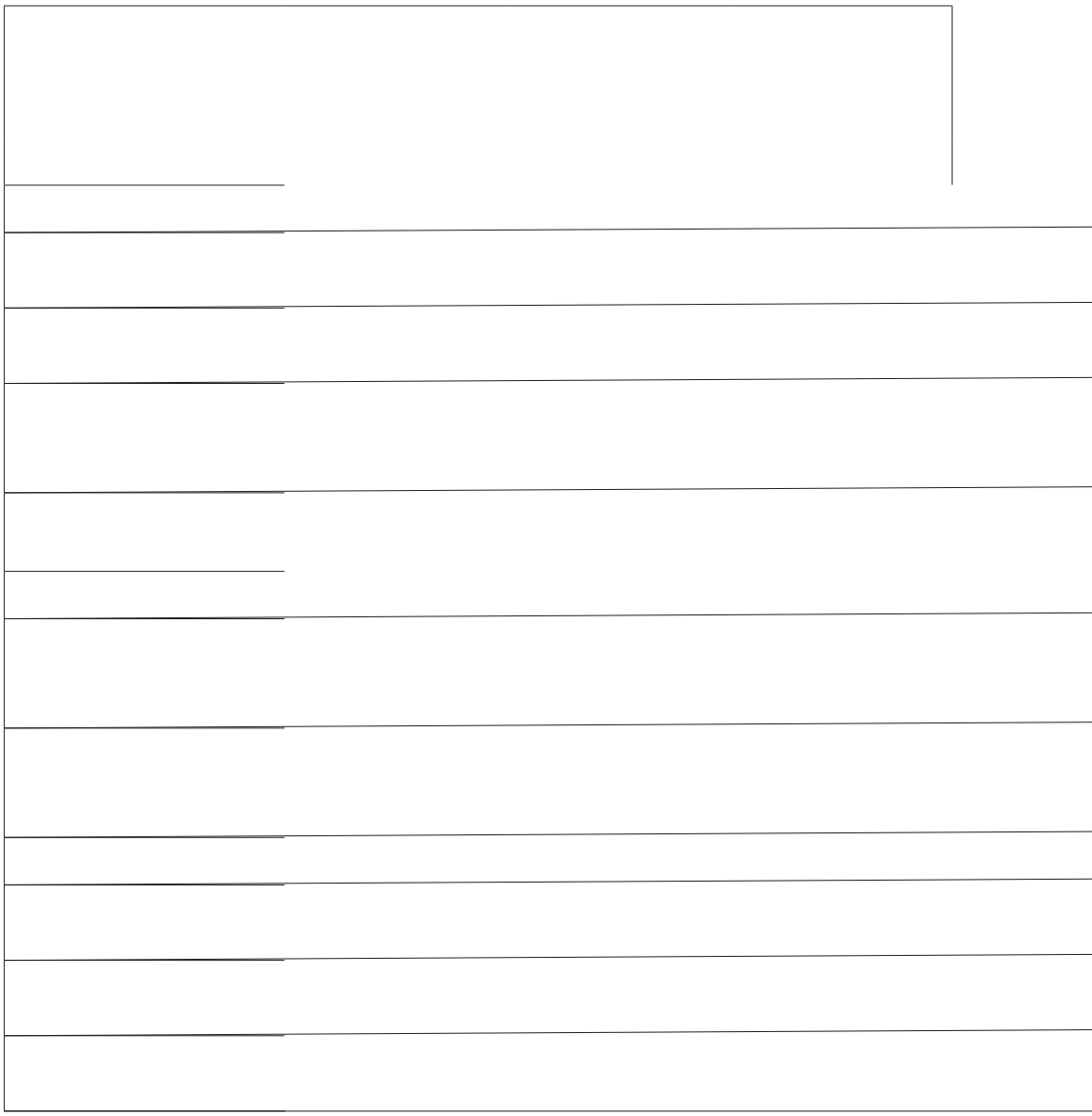
Table 2



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2.3 *Global Burden of Armed Violence* (2008), 40, ; ://-B -A -V ; .;

lations.[20] Significant numbers of indirect deaths have been documented in a variety of settings, including in Iraq, Darfur, Afghanistan, Angola, the Democratic Republic of the Congo, Kosovo, and Guatemala. One summary study reported that the indirect health consequences of civil wars between 1991 and 1997 throughout the world were twice that associated with direct, combat-related effects. A report published by the Geneva Declaration Secretariat suggested that for every violent death resulting from war between 2004 and 2007, four died from war-associated elevations in malnutrition and disease.[21] Global health scholar Amy Hagopian and her colleagues reported that approximately one-third of all deaths in Iraq were due to indirect causes.[22] Prior studies have also suggested significantly elevated rates of indirect deaths, although the precise proportion varied with different methodologies and points in time.[23] In Kosovo, overall mortality more than doubled during the height of the fighting, but most of this increase was due to direct, traumatic injury.[24] Beyond mortality considerations, indirect effects can include substantial numbers of disabilities, developmental disorders in children, and of special concern, long-standing mental health conditions. There is substantial evidence that the exposure to combat and displacement can generate severe emotional disturbances in all age groups, but particularly children. Both the severity and chronicity of these exposures are important. Posttraumatic stress disorder (ptsd) is all too common, particularly when children witness the death of a parent or loved one.[25] The failure to provide normalizing or therapeutic environments, such as access to schools or mental health services, only exacerbates long-term mental health effects.

However, recent studies have underscored the complexity of estimating indirect effects.[26] Some analyses suggest that young child mortality can actually decline during periods of conflict, reflecting a continuation of long-term trends in improving child survival;[27] though these declines were generally less steep than during the years prior to war. The variation in these estimates likely involves the inherent difficulties of accurate data ascertainment in war zones. Security can be poor and there may be a variety of disincentives to participating in a survey or responding faithfully to questions. Populations exposed to war are often highly mobile and disparities in who emigrates can result in nonrepresentative skewing of the residual populations available for surveys. In addition, exposures to violence can vary even among communities in close proximity. Therefore, a reliance on national or regional mortality figures can obscure the impact of war confined to a relatively small area.

In many ways, the variation in the estimates of indirect effects reflects less the failures than the advances in the field. The growing sophistication of the methods being employed is increasingly documenting inherent differences in how indirect effects occur in different areas of conflict. It seems clear, for example, that the impact of conflict in very-low-resource settings such as the Democratic Republic of the Congo may have very different indirect effects than in mid- to high-income locations, such as Bosnia or Kosovo. In this manner, the estimation of indirect effects is coming into line with the estimation of direct effects. Both clearly suffer from difficult logistical and political obstacles, and yet these efforts to quantify the human cost of war have improved significantly and remain essential.

Sanctions can represent a special case of warfare in which all the effects on civilians are indirect. Not all sanction regimes may be considered a type of warfare. However, it seems a bias in definition not to recognize state-enforced, crossborder deprivation resulting in mass death in an enemy popu-

The assessment of success and proportionality can prove more complex, however, when war's objectives are explicitly based on humanitarian concerns, such as in Kosovo or Libya. Just war theory is intended to justify war as much as confine it. When war is justified on the basis of humanitarian intervention, of "saving innocent lives," some predictive comparison must be made between the human impact of intervention – both direct and indirect – and that likely to occur were the intervention not undertaken. In this manner, a consideration of indirect effects can either create incentives to initiate or refrain from war. Philosopher Steven Lee has suggested that this dual capacity informs the analysis of proportionality as weighing the "created evil" generated by a violent intervention against the "resisted evil" that the intervention intends to avert.[31] Both considerations should involve some prediction of indirect effects. This predictive imperative cannot be dismissed by the mere assertion that the intention of the intervention was inherently well-meaning or just. As Lee states: "Proportionality limits what a state can do in the name of a just ca

fects drone on. Periods without active combat are always better than periods with active combat. However, the protracted and intermittent nature of a conflict and the blurred distinctions between prewar, war, and postwar phases make the application of traditional just war theory to the indirect effects of war somewhat more difficult. There is a risk that an insistence on analytic templates based on wars with a definitive beginning and end, such as World War II, can relegate the civilian cost of lengthy, churning conflicts to the periphery of just war relevance or even capability.

There is a need to find ways to delimit the indirect effects in order to navigate the margins of where the human costs of unjust war give way to the human costs of unjust peace. Humanitarian strategies are helpful, as they are in all wars. Yet a critical reading of just war criteria seems most essential when war-fighting and peacemaking defy traditional boundaries, when conflict is prolonged and conceptually muddled. This may be of special concern when standoff weapons, such as high-altitude bombing or the use of armed drones, allow one side to extend combat operations over long periods of time without significant risk to their soldiers. The indirect effects of this protracted violence, in terms of both injury and mental well-being, can be profound. The failure to critically implement just war criteria when war phases are confused can create an analytic vacuum that can too often permit the chronicity of

ity to prevent indirect effects has grown enormously, a level of technical advancement that has been so profound that it has the ability to reshape traditional applications of just war theory to current and future conflicts around the world.

In the context of just war, technical innovation means more than the creation of more powerful and precise munitions. It also means an enhanced capacity to measure and reduce the human impact of war. Innovation in these two technical domains – measurement and mitigation – has been sufficient to rethink the application of just war theory to the indirect effects of war.

The primary basis of estimating the indirect effects of war has been to measure those health outcomes that would not have occurred if war were not present. As one report stated, "measuring war related deaths involves comparing the number of deaths that occurred due to a conflict against the counterfactual scenario of peace."[42] The indirect component comprises those deaths not due to direct combat-related injury. This approach often means that indirect effects are expressed in some form as "excess" outcomes defined by some comparative simulation. These excess outcomes are calculated as the difference between, for example, an expected number of deaths based on peacetime mortality rates and the actual observed numbers of deaths during the war-defined study period, be it

conflict in the Democratic Republic of the Congo and Darfur, direct trauma-related mortality accounted for less than 20 percent of all excess deaths among children under five years of age.[44] The leading causes of excess death were fever/malaria, neonatal (newborn) illnesses, measles, diarrhea, and acute respiratory infection: pre-

The mitigation of indirect effects has moral meaning. If innocence has any meaning, the epidemiology reveals that the victims are those with the most striking moral claims. If the scale of suffering has any meaning, epidemiology demands that indirect effects not be ignored. If the failure to act when capability exists has any meaning, the science of indirect effects testifies to a damning global complacency. There remain both conceptual and technical challenges in crafting a full embrace of the indirect effects of war. But these tasks do not seem the critical obstacles. Rather, the obstacles lie in the apparent utility of diminishing war's true human cost and the maddening acquiescence of our moral frameworks that gives license to this evasion. The essential challenge lies in renegotiating the tension between the exercise of power and the claims of the vulnerable, a tension from which, not coincidently, both epidemiology and just war theory were born.[49]

endnotes9

The Lancet 375 (9711) (2010): 294 300. , *The Lancet* 367 (9504) (2006): 44 51; , *BMC Public Health* 14 (266) (2014).

[22] [illegible] *Paul H. Wise* [illegible] 2003 2011 [illegible] „*PLoS Medicine* 10 (10) (2013).

[23] [illegible] „*Interna-*

41 [illegible], *Humanity's Law* ([illegible], 2011); [illegible], „Cornell International Law Journal 39 (3) (2006): 689–696.

42 [illegible], „European Journal of Population 21 (2–3) (2005): 145–166.

43 [illegible]

44 [illegible]

45 [illegible], *The Lancet* 362 (2003): 65–71.

46 [illegible], *Spheres of Justice* ([illegible], 1983); [illegible], *Inequality Reexamined* ([illegible], 1992); [illegible], *Just Health Care* ([illegible], 1985); [illegible], *Health and Social Justice* ([illegible], 2009).

47 [illegible], „The BMJ 307 (6895) (1993): 44–48.

48 [illegible], *Global Trends 2014: World at War* ([illegible], 2015).

49 [illegible], *Victorian Social Medicine: The Ideas and Methods of William Farr* ([illegible], 1979).