

Bayard Roberts

*Senior Lecturer in Health Systems and Policy,
London School of Hygiene and Tropical Medicine*

Is conflict bad for health? The intuitive answer is yes. However, it is generally difficult to epidemiologically prove a direct causal link between armed conflict and worse health outcomes among civilians. This is largely because of contextually driven methodological limitations such as uncertain and limited baseline and longitudinal data that could help demonstrate temporal patterns over underlying secular trends (HSC, 2011). However, these epidemiological limitations should clearly not prevent us from drawing plausible, evidence-based associations between conflict and health. A large volume of descriptive data has highlighted that health outcomes are generally significantly worse among populations exposed to conflict and forced displacement when compared to those who are not exposed. Mortality (including maternal mortality) and malnutrition rates are often significantly elevated as a result of exposure to conflict, with high profile examples including the Democratic Republic of Congo Iraq, Somalia, Sudan, Syria, and Uganda (Checchi & Roberts, 2005; Salama, 2004; World Bank, 2011). Exposure to conflict and forced displacement are also associated with at least a doubling of the prevalence of common mental health disorders (WHO, 2013a), while other mental disorders such as post-traumatic stress disorder can rise even more substantially (Steel, 2009).

Could health outcomes improve despite conflict? Some studies have shown improved population-level health outcomes during times of conflict, but these studies are generally few in number or methodologically limited (HSC, 2011; Devkota & Van Teijlingen, 2010). Evidence also suggests that conflict may be protective against the spread of some diseases such as HIV/AIDS (Spiegel *et al.*, 2007). Fundamentally, the health impacts of conflict will vary depending on the intensity of the conflict; demographic and epidemiological profiles; socio-economic circumstances and available resources, and coverage and effectiveness of the health sector response.

What is the impact of conflict at the global health level? The Global Burden of Disease Study suggests that armed conflict has a fairly negligible impact – indeed it reportedly accounts for less than 1% of the Global Burden of Disease – either as deaths or Disability Adjusted Life

Years (DALYs) (G.B.D. Risk Factors Collaborators, 2015). However, the study only includes direct deaths from conflict, rather than the indirect deaths which can account for up to 90% of the excess deaths arising from conflict. It also excludes conflict as a risk-factor for physical and mental morbidity and disability. The broader health effects of conflict, such as on health systems, are also not captured.

It is difficult to empirically map the pathways explaining the impact of conflict on health outcomes because of the contextual constraints and methodological limitations noted above. However, credible explanations clearly exist. These include the direct impact on the deaths, injuries, and psychological trauma that occur from the war-fighting itself. They also include the indirect impact on physical and mental morbidity and malnutrition from: impoverishment; reduced access to shelter, health services, food, potable water, and sanitation; higher exposure to disease vectors; sense of loss; and disruption to key health system functions. These key health system functions include: damaged or destroyed health services, medical supplies, and essential public health functions; reduced human resources due to attacks on health workers and disrupted training; reduced disease surveillance and other information systems; compromised stewardship; and diverted government funding and diminished international funding as donors invest in safer and more stable countries (Patel *et al.*, 2016).

In terms of poverty reduction and development, at the individual level, conflict and forced displacement can lead to the loss of assets and income which is exacerbated by the long-term and cyclical nature of conflict and forced displacement. In addition, the cost of health care, particularly for more complex treatment of non-communicable diseases, can also risk bankrupting households through catastrophic health expenditure – such as is happening with Syrian refugees today (Spiegel *et al.*, 2014). Permanent physical disability from injuries and long-lasting mental disabilities can severely compromise the ability of individuals and their families to function, including economically, at their full potential (Makhashvili *et al.*, 2013; WHO, 2013b). At the district and national levels, conflict impedes economic growth and deters investment, thereby slowing or reversing progress in poverty reduction and development (World Bank, 2011).

However, we must be careful to guard against making assumptions on the health impacts of conflict and forced migration without using reliable evidence. Perhaps the clearest example of the failure to use evidence was the assumption by many governmental, non-governmental and UN agencies that conflict and forced migration would inevitably spread HIV/AIDS (UNGA, 2001). In fact, evidence suggests the opposite was generally the case (Spiegel, 2007). This failure likely resulted in substantial misallocation of scarce resources and further stigmatized forcibly displaced persons.

It is also important that we use evidence to not only better understand the impact of conflict on health and development, but, crucially, to also strengthen the effectiveness of humanitarian health interventions. There remain large evidence gaps on the effectiveness (and cost-effectiveness) of humanitarian interventions in improving health outcomes (Blanchet *et al.*, 2015). There are also very few studies which have sought to evaluate

the effectiveness of inter-sectoral interventions – such as for health and education or income generation and how they can improve health and other development outcomes (Blanchet *et al.*, 2015). Indeed, the failure to generate and use evidence to better understand the health needs and effectiveness of humanitarian health responses remains a critically neglected area in the humanitarian system.

References

Blanchet K. *et al.* "An evidence review of research on health interventions in humanitarian crises". *Enhancing Learning & Research for Humanitarian Assistance* (2015). (on-line) <http://www.elrha.org/wp-content/uploads/2015/01/Evidence-Review-22.10.15.pdf>

Checchi, F. and Roberts, L. "Interpreting and using mortality data in humanitarian emergencies: a primer for non-epidemiologists". *Humanitarian practice network paper*, no. 52 (September 2005). Overseas Development Institute: London. (on-line) <http://odihpn.org/resources/interpreting-and-using-mortality-data-in-humanitarian-emergencies/>

Devkota, B. and Van Teijlingen, E.R. "Understanding effects of armed conflict on health outcomes: the case of Nepal". *Conflict and Health*, vol. 4 (2010), p. 20.

G. B. D. Risk Factors Collaborators. "Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013". *The Lancet*, vol. 386, no. 10010 (2015), p. 2287-323.

HSC - Human Security Centre. *Human Security Report 2009/10: The Causes of Peace and The Shrinking Costs of War*. University of British Columbia: Vancouver, 2011.

Makhashvili, N. *et al.* "Mental disorders and their association with disability among internally displaced persons and returnees in Georgia". *Journal of Traumatic Stress*, vol. 27, no. 5 (2014), p. 509-18.

Patel, P. *et al.* "Tracking official development assistance for reproductive health in conflict-affected countries: 2002-2011". *British Journal of Obstetrics and Gynaecology*, vol. 123, no. 10 (2016), p. 1693-704.

Salama, P. *et al.* "Lessons learned from complex emergencies over past decade". *The Lancet*, vol. 364, no. 9447 (2004), p. 1801-13.

Spiegel, P.; Khalifa, A. and Mateen, F.J. "Cancer in refugees in Jordan and Syria between 2009 and 2012: challenges and the way forward in humanitarian emergencies". *The Lancet Oncology*, vol. 15, no. 7 (2014), p. e290-7.

Spiegel, P.B. *et al.* "Prevalence of HIV infection in conflict-affected and displaced people in seven sub-Saharan African countries: a systematic review". *The Lancet*, vol. 369, no. 9580 (2007), p. 2187-95.

Steel, Z. *et al.* "Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis". *The Journal of the American Medical Association*, vol. 302, no. 5 (2009), p. 537-49.

UN - United Nations. "General Assembly Special Session on HIV/AIDS 25-27"(June 2001). New York: United Nations.

WHO – World Health Organization. *Building back better: sustainable mental health care after emergencies*. Geneva: World Health Organization, 2013a. (on-line) http://www.who.int/mental_health/emergencies/building_back_better/en/

WHO-World Health Organization. *Investing in mental health: evidence for action*. Geneva: World Health Organization, 2013b. (on-line) http://www.who.int/mental_health/publications/financing/investing_in_mh_2013/en/

World Bank. "Conflict, Security and Development". *World Bank Development Report (2011)* (on-line) http://siteresources.worldbank.org/INTWDRS/Resources/WDR2011_Full_Text.pdf