

Focus 6. Inequality and cancer: the conflict ecosystem and refugees

Richard Sullivan, Omar Shamieh, Tezer Kutluk, Adel Daoud, and Adam P. Coutts

The changing nature of global conflict and its impact on demographically transitioned societies

During the Hungarian Revolution in 1956, 200 000 people fled to neighbouring Austria. This uprising and its aftermath shaped the way humanitarian organizations would deal with refugee crises in the decades that followed. The decolonization of Africa produced the first of that continent's numerous refugee crises by the 1960s, a trend that has now reached a zenith with the largest global refugee crisis since the Second World War across Africa, Asia, and the Middle East. Traditional humanitarian action to support displaced populations in low-resource settings focused on emergency aid and the control of infectious diseases; this situation has changed to one where people are leaving lower-middle-income countries, such as the Syrian Arab Republic, to escape conflict, poverty, and/or oppression. As well as the inherent infectious diseases, cancer and other noncommunicable diseases (NCDs) are prevalent among refugees. New inequalities have emerged as a result of these new conflict-driven demographic dynamics. Migration patterns and sociocultural changes are radically altering exposure to cancer risk factors and access to cancer care. The geopolitical status and immediate surroundings of refugees and internally displaced persons (IDPs) – for example, a rural refugee camp, an urban detention centre, or an enclave – defines and exacerbates inequalities in cancer. Many countries and regions now experience oscillations between conflict and fragile states (so-called post-conflict states). This results in populations spending longer periods as refugees, further weakening state capacity to maintain health systems.

Contemporary conflicts and humanitarian crises have had significant impacts on demographically transitioned countries from Latin America (e.g. the Mexican Drug Wars) to the Middle East and North Africa (MENA) region (e.g. regional conflicts since the 2011 Arab uprisings), particularly across Iraq, Libya, and the Syrian Arab Republic.

This has significant consequences for population health, including those of refugees and IDPs, at a time when pre-existing and long-term vulnerabilities, including the endemic high levels of poverty, corruption, unemployment, and disease (both infectious and noncommunicable) burden, are becoming increasingly significant (ILO/UNDP, 2013; Coutts, 2015). The scale and scope of the ongoing refugee crisis has exposed both the fragile nature of the health and social protection systems for cancer care of refugee host countries, and inadequacies in international response mechanisms for supporting displaced populations with a high burden of NCDs. However, academic discourse and foreign policy agendas on the conflict-affected countries in the region frequently overlook health inequalities and the political economy of how health systems are designed, implemented, and governed.

It is apparent that existing health systems and medical approaches have not been able to properly address the rising burden of cancer and other NCDs experienced in conflict-affected countries (SPHN, 2016). Cancer has been neglected within the policy response to the humanitarian crisis and development (Coutts et al., 2015). Evidence from public health, sociology, and social epidemiology studies demonstrates that factors separate from the provision of health services, such as social, economic, and political factors, are increasing inequalities in cancer; any policy response must therefore reflect this (NCCDH, 2012). Indeed, a recent analysis of health inequalities including in NCDs in the Eastern Mediterranean Region highlights the absence of a political economy and multisectoral approach to understanding health and health-care issues (Mokdad et al., 2016). From our research, it is clear that powerful vested interests, such as syndicates of hospitals and doctors, private sector health providers, and pharmaceutical and tobacco companies, have contributed to national inequalities in cancer through the inadequate health and social protection systems of conflict-affected countries (Coutts et al., 2013).

In addition to a high cancer burden, most countries in conflict have a long record of underinvestment in health research and its subsequent translation into adequately funded policies on a national level; this has given rise to critical skills shortages, insufficient capacity in health services, and poor health outcomes for the populations (Mateen et al., 2018). Viewed alongside the limitations of basic public health surveillance systems, these problems severely constrain governments and multilateral

agencies in attempting to address the unprecedented inequalities in both short- and long-term cancer care for vulnerable domestic populations and refugees (Ismail et al., 2013).

The conflict ecosystem and inequalities

Today's refugee crisis brings the inequalities in cancer experienced by refugees and the impact of conflict on cancer care into sharp perspective. The cancer burden in transitioned middle-income countries is already high because of years of underinvestment in health services; conflict serves only to increase the inequalities experienced by both refugees and domestic populations of host countries.

The fragile and nascent cancer control programmes of countries in North Africa and sub-Saharan Africa mean that cancer care for domestic populations is already limited. The influx to these countries of refugees, some of whom are seeking cancer care, has already had an impact on the availability of and accessibility of cancer care in Rwanda and the United Republic of Tanzania; of the more than 420 000 refugees who left Burundi during 2015–2017, 20% went to Rwanda and 54% went to the United Republic of Tanzania. The conflicts in Chad, Libya, and Mali and across the Sahel have also driven cancer patients into seeking care in Tunisia and across the Mediterranean Sea. Although many families in Libya have been able to pay out-of-pocket expenses for care, even basic treatment is unaffordable for most refugees from the Sahel region. The impact of Libyan refugees seeking cancer care has been 2-fold: contributing to the decline of Libyan cancer care by removing domestic remittances; and contributing to inequalities in outcomes for host-country populations by displacing domestic, publically insured patients in Tunisia.

The contribution to inequalities in cancer from the movement of refugees has also been seen in South-East Asia (Chongsuvivatwong et al., 2011). Inequality in outcomes and high levels of catastrophic expenditure on cancer treatment have been well documented. Countries such as Bangladesh and Myanmar have particularly unequal and fragile cancer care systems. However, during 2017 about 761 000 refugees were displaced from Myanmar to Bangladesh, essentially from one low-income setting to another, reversing the incremental improvements in cancer care (achieved from advances in treatment) and inadvertently increasing inequalities in outcomes as

wealthier patients left Bangladesh to seek care in Northeast India. Ironically, this secondary migration then places a strain on resources in an already-constrained and deprived part of India, enhancing cumulative inequalities across the region.

Traditionally equitable health systems in Latin America, such as that of Columbia, are coming under huge strain from refugees escaping the civil unrest and collapsing economy in the Bolivarian Republic of Venezuela; about 68 000 refugees were absorbed in 2017 alone. Similarly, many refugees migrating across Europe find themselves passing through many of the more deprived central and eastern European countries that already have relatively poor cancer outcomes. In particular, the high number of children (~20% of the total refugee population; Carballo et al., 2017) has placed a significant burden on childhood cancer services in many countries (ExPO-r-Net, 2018). Refugees seeking cancer care contribute to complex patterns of displacement of domestic cancer patients, either through the volume effect or by the rising costs of treatment because of increased demand.

Inequalities in access to care, outcomes, and financial burden are also driven by conflict geography. The trapping of refugees in seam zones and enclaves, such as the Biddu enclave (a cluster of eight Palestinian villages in the West Bank surrounded by and cut off by Israeli settlements), or the isolation of communities (e.g. the Gaza Strip) as a result of conflict, drives inequalities in cancer. For example, breast cancer 5-year survival is just more than 54% in these communities, compared with a regional average of nearly 74% (Khatib et al., 2017). Analysis by the United Nations High Commissioner for Refugees revealed that refugees in formal camp settings experience very poor cancer outcomes; even when the cancer has been diagnosed, they receive inadequate treatment, because the refugee camp care system is geared towards the treatment of communicable diseases (Spiegel et al., 2014). The clinical and surgical expertise within such a system is usually focused on trauma and benign disease (Trelles et al., 2015). Without referral or access to a country's dedicated cancer centre, access to curative or palliative treatment is beyond many refugees, especially those living in the informal "*sans papiers*" sector. Sexual inequality is also worsened by conflict in most settings; women experience significantly poorer cancer outcomes than men (Bigby and Holmes, 2005; Mokdad et al., 2016).

Addressing inequalities experienced by refugees or those affected by conflicts

Conflict changes therapeutic and social geographies through complex paths that drive inequalities in cancer by affecting not only refugees and IDPs but also the low-income domestic populations of host countries; furthermore, the reduction in the volume of the skilled workforce of the conflict-affected country contributes to inequalities in cancer for those choosing to stay (Dewachi et al., 2014). Despite the recognition of ageing refugee populations and the rising number of transitioned countries affected by conflict, new frameworks for humanitarian medicine still do not address cancer (Spiegel et al., 2010). This is a fundamental gap and needs to be tackled if progress is to be made in addressing inequalities in cancer within these unique ecosystems. Even strategies aimed at providing care for patients with NCDs in emergencies are mostly silent on the best models of care and pathways, never mind the wider political economy of delivering cancer control (Slama et al., 2017). However, many host countries (e.g. Turkey) have developed interventions that deliver outcomes equal to those of the population of the host country (Kebudi et al., 2016). The Turkish government recently extended the coverage for cancer patients by abolishing the charges that had been applied to non-resident populations only. The common denominator among countries that have delivered such interventions is a prior history of and commitment to universal health coverage (Atun et al., 2013). The impact of absorbing refugees has exposed short- and long-term vulnerabilities in the health systems of host countries, but has also had the effect of forcing policy-makers to reform their health systems, particularly in light of the assessment of national resources (Coutts et al., 2013; Kaafarani et al., 2018).

References

- Atun R, Aydın S, Chakraborty S, Sümer S, Aran M, Gürol I, et al. (2013). Universal health coverage in Turkey: enhancement of equity. *Lancet*. 382(9886):65–99. [https://doi.org/10.1016/S0140-6736\(13\)61051-X](https://doi.org/10.1016/S0140-6736(13)61051-X) PMID:23810020
- Bigby J, Holmes MD (2005). Disparities across the breast cancer continuum. *Cancer Causes Control*. 16(1):35–44. <https://doi.org/10.1007/s10552-004-1263-1> PMID:15750856
- Carballo M, Hargreaves S, Gudumac I, Maclean EC (2017). Evolving migrant crisis in Europe: implications for health systems. *Lancet Glob Health*. 5(3):e252–3. [https://doi.org/10.1016/S2214-109X\(17\)30040-2](https://doi.org/10.1016/S2214-109X(17)30040-2) PMID:28193385
- Chongsuvivatwong V, Phua KH, Yap MT, Pocock NS, Hashim JH, Chhem R, et al. (2011). Health and health-care systems in Southeast Asia: diversity and transitions. *Lancet*. 377(9763):429–37. [https://doi.org/10.1016/S0140-6736\(10\)61507-3](https://doi.org/10.1016/S0140-6736(10)61507-3) PMID:21269685

- Coutts A (2015). Inclusive social development. A report prepared for the Economic and Social Commission for Western Asia, Beirut, Lebanon. Available from: <http://socialprotection-humanrights.org/wp-content/uploads/2015/07/Inclusive-Social-Development-2015-ESCWA.pdf>.
- Coutts A, Fouad FM, Abbara A, Sibai AM, Sahloul Z, Blanchet K (2015). Responding to the Syrian health crisis: the need for data and research. *Lancet Respir Med.* 3(3):e8–9. [https://doi.org/10.1016/S2213-2600\(15\)00041-7](https://doi.org/10.1016/S2213-2600(15)00041-7) PMID:25773219
- Coutts A, Stuckler D, Batniji R, Ismail S, Maziak W, McKee M (2013). The Arab Spring and health: two years on. *Int J Health Serv.* 43(1):49–60. <https://doi.org/10.2190/HS.43.1.d> PMID:23527453
- Dewachi O, Skelton M, Nguyen VK, Fouad FM, Sitta GA, Maasri Z, et al. (2014). Changing therapeutic geographies of the Iraqi and Syrian wars. *Lancet.* 383(9915):449–57. [https://doi.org/10.1016/S0140-6736\(13\)62299-0](https://doi.org/10.1016/S0140-6736(13)62299-0) PMID:24452046
- ExPO-r-Net (2018). European Expert Paediatric Oncology Reference Network for Diagnostics and Treatment. Available from: <https://www.expornet.eu/>.
- ILO/UNDP (2013). Rethinking economic growth: towards productive and inclusive Arab Societies. International Labour Organization and United Nations Development Programme. Available from: http://www.ilo.org/beirut/publications/WCMS_208346/lang-en/index.htm.
- Ismail SA, McDonald A, Dubois E, Aljohani FG, Coutts AP, Majeed A, et al. (2013). Assessing the state of health research in the Eastern Mediterranean Region. *J R Soc Med.* 106(6):224–33. <https://doi.org/10.1258/jrsm.2012.120240> PMID:23761582
- Kaafarani HMA, Khalifeh JM, Ramly EP, Simon D, Safa R, Khalil L, et al. (2018). A nationwide, systematic, and comprehensive assessment of surgical capacity in Lebanon: results of the Surgical Capacity in Areas with Refugees (SCAR) study. *Ann Surg.* 1. <https://doi.org/10.1097/SLA.0000000000002687> PMID:29373369
- Kebudi R, Bayram I, Yagci-Kupeli B, Kupeli S, Sezgin G, Pekpak E, et al. (2016). Refugee children with cancer in Turkey. *Lancet Oncol.* 17(7):865–7. [https://doi.org/10.1016/S1470-2045\(16\)30211-X](https://doi.org/10.1016/S1470-2045(16)30211-X) PMID:27396633
- Khatib R, Giacaman R, Khammash U, Yusuf S (2017). Challenges to conducting epidemiology research in chronic conflict areas: examples from PURE- Palestine. *Confl Health.* 10(1):33. <https://doi.org/10.1186/s13031-016-0101-x> PMID:28239410
- Mateen FJ, McKenzie ED, Rose S (2018). Medical schools in fragile states: implications for delivery of care. *Health Serv Res.* 53(3):1335–48. <https://doi.org/10.1111/1475-6773.12709> PMID:29368334
- Mokdad AH, Forouzanfar MH, Daoud F, El Bcheraoui C, Moradi-Lakeh M, Khalil I, et al. (2016). Health in times of uncertainty in the Eastern Mediterranean region, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet Glob Health.* 4(10):e704–13. [https://doi.org/10.1016/S2214-109X\(16\)30168-1](https://doi.org/10.1016/S2214-109X(16)30168-1) PMID:27568068
- NCCDH (2012). Assessing the impact and effectiveness of intersectoral action on the social determinants of health and health equity: an expedited systematic review. Nova Scotia, Canada: St Francis Xavier University. National Collaborating Centre for Determinants of Health. Available from: http://nccdh.ca/images/uploads/ISA_Report_EN1.pdf.
- Slama S, Kim HJ, Roglic G, Boulle P, Hering H, Varghese C, et al. (2017). Care of non-communicable diseases in emergencies. *Lancet.* 389(10066):326–30. [https://doi.org/10.1016/S0140-6736\(16\)31404-0](https://doi.org/10.1016/S0140-6736(16)31404-0) PMID:27637675
- SPHN (2016). Syria's health: the silent burden of chronic diseases. Syria Public Health Network. Available from: <http://syriahealthnetwork.org/attachments/article/34/NCD%20SPHN%20report.pdf>.
- Spiegel P, Khalifa A, Mateen FJ (2014). Cancer in refugees in Jordan and Syria between 2009 and 2012: challenges and the way forward in humanitarian emergencies. *Lancet Oncol.* 15(7):e290–7. [https://doi.org/10.1016/S1470-2045\(14\)70067-1](https://doi.org/10.1016/S1470-2045(14)70067-1) PMID:24872112
- Spiegel PB, Checchi F, Colombo S, Paik E (2010). Health-care needs of people affected by conflict: future trends and changing frameworks. *Lancet.* 375(9711):341–5. [https://doi.org/10.1016/S0140-6736\(09\)61873-0](https://doi.org/10.1016/S0140-6736(09)61873-0) PMID:20109961
- Trelles M, Dominguez L, Tayler-Smith K, Kiswani K, Zerboni A, Vandenborre T, et al. (2015). Providing surgery in a war-torn context: the Médecins Sans Frontières experience in Syria. *Confl Health.* 9(1):36. <https://doi.org/10.1186/s13031-015-0064-3> PMID:26674297