Health and Health Care Decline in Iraq:

The Example of Cancer & Oncology

Mac Skelton

Introduction

In the 1980s and up until 1991, Iraq's annual budget for health care averaged $450 million USD annually and the country boasted some of the highest medical standards in the region.[1] The 1991 Gulf War dealt a severe blow to the country's major infrastructures, leaving hospitals highly compromised and dealing with an overwhelming number of patients. UN Sanctions furthered the process of deterioration. In 1996 an international team of researchers reported that "one third of hospital beds were closed," the "average length of stay had more than halved since before the Gulf War," and "more than half of the hospitals' diagnostic and therapeutic equipments" were not functioning due to a "lack of spare parts or maintenance."[2] A decade after the start of the Sanctions, the total health budget had fallen to $22 million, approximately 5 percent of what it had been in the 1980s.[3] Twenty-two years after the first Gulf War, health and health care remain highly compromised in Iraq. With a focus on the example of cancer and oncology in Iraq, this article provides windows into both the decline of health and health care and the ways in which this decline has been contested, debated, and silenced.

Health indicators

Health indicators plummeted throughout the 1990s in Iraq. The dismantlement of water, sanitation, and electricity systems furnished the ground for the spread of illnesses such as diarrhea. Typhoid cases saw a fivefold spike. Low birth weight babies increased in prevalence from 4% to 17% of the total. Polio and measles cases doubled.[4] In the year following the first Gulf War, increases in child and infant mortality corresponded to an excess of about 47,000 deaths among children under the age of five.[5] Food shortages began as soon as Sanctions were put into effect. Rationing was introduced in order to mitigate this problem, but the crisis would only grow. Sanctions technically exempted medicine and food from the comprehensive import ban, but in reality both suffered. Non-rationed food prices skyrocketed to 25-times the pre-1991 levels.[6] A 1996 WHO report stated that the "vast majority of the country's population has been on a semi-starvation diet for years." As UNICEF's 1997 report stated, fully a third of Iraqi children under the age five were "chronically malnourished."[7]

The 2003 invasion and its aftermath would be equally disastrous. Not only were excess deaths due to violence enormous,[8] many thousands were killed or injured due to electrical shocks, falls, unintentional gunshot wounds and other accidents attributable to a

battered infrastructure and instability.[9] Life expectancy at birth in 2010 was 58 years, down from 65 years 30 years prior. By 2011, tuberculosis rates had reached levels six times higher than in Syria and 30 times higher than in Jordan. Child immunization rates dropped by nearly 20% between 2000 and 2011.[10]

Exodus of doctors

Iraqi doctors, who were considered to be among the most advanced in the Middle East, fled the country *en masse* in the years following the 2003 invasion.[11] Many physicians had already left the country due to the plummeting wages during the sanctions period. Doctors' state salaries reached as low as $2 a month under the weight of the embargo. Salaries increased significantly during the post-2003 American occupation, but, as the security situation deteriorated and sectarian militias and gangs gained power, doctors became prime targets for assassinations and kidnappings.[12] An estimated 18,000 physicians, roughly half the national total prior to the occupation, have left Iraq.[13] The majority have no plans to return.[14] Understaffed and poorly resourced, hospitals have struggled to provide care. [15] Experiences of failed diagnoses and treatments have contributed to a breakdown of trust in the reliability of doctors and medical institutions. As a consequence, regional cities such as Beirut and Amman are becoming hubs for the thousands of Iraqi patients seeking medical care outside the country.[16]

Cancer care in Iraq

After the director of the WHO Cancer Programme Karol Sikora's visit to Iraq in 1999, he described cancer services on the ground: "Visiting the cancer centre in Iraq is a harrowing experience." He added: "It was immediately clear that there were staggering deficiencies in cancer treatment facilities because of the United Nations Sanctions, which are intended to exclude food and medicines. A cancer centre without a single analgesic; a radiotherapy unit where each patient needs one hour under the machine because the radiation source is so old…the availability of chemotherapy is essentially a lottery."[17] Oncology became a specific target of the sanctions: "Requested radiotherapy equipment, chemotherapy drugs, and analgesics are consistently blocked by United States and British advisers. There seems to be a rather ludicrous notion that such agents could be converted into chemical or other weapons." [18] During the 1990s and early 2000s, cancer patients were forced to rely on black markets to supplement hospital provisions of key medications.[19]

In a study of 651 childhood leaukemia patients, significant shortages of chemotherapeutic agents were evident from the large increase in the proportion of patients who received less than 50% of the prescribed chemotherapy: The percentage jumped from 20.1% between 1990 and 1994 to 54.3% between 2000 and 2002. The survival rate for patients who received all prescribed chemotherapy was significantly greater than it was for patients who missed any chemotherapy.[20]

In the aftermath of the 2003 invasion, supplies for cancer medications dwindled due to the tightening of border controls and the disruption of distribution channels. Humanitarian aid organizations turned cancer patients away frequently due to the prioritization of conflict injuries.[21] To this day, Iraq's cancer centers remain highly compromised and under-resourced.[22]

Traveling for oncology: Beirut's Weekend Hotel

The persistence of poor medical conditions has contributed to an exploding phenomenon of medical travel as Iraqis fly to Beirut, Amman and even India for life-saving treatments (see Dewachi, this site). Recent fieldwork conducted by the author and Omar Al-Dewachi among Iraqi cancer patients in Beirut provided insight into these problems. During the summer of 2012, I spent my afternoons and evenings at the Weekend Hotel, a mid-sized inn located in the heart of Beirut's medical district. Since 2007, over half of the hotel's guests have been Iraqis (mostly Shia and middle class) seeking cancer care. Patients and family members graciously took the time to explain their journeys, detailing their frustrations with the deterioration of Iraqi hospitals as well as the severe financial and emotional burdens of travel abroad.[23],[24] The majority had endured one or more failed diagnoses and treatments in Iraq before traveling to Beirut.

Abu Samia, a 49-year old cancer patient from Baghdad, endured two misdiagnoses in Iraq before deciding to travel abroad.[25] Emad, a 26-year old escorting his mother, expressed frustration over the difficulty of getting an appointment for radiotherapy in Iraq. "They told us it might be months. How could we wait months when my mother is dying of brain cancer? So we decided to come to Beirut." In 2012, Faisal's sister, Mariam, a 35 year-old single woman, fell ill with rectal bleeding, abdominal discomfort and rapid loss of weight. Faisal, the eldest brother in the family, rushed his sister to a hospital in Baghdad where she was hastily diagnosed with a bacterial infection in the colon. With her state failing to improve with antibiotics, the family, disenchanted by the incompetence and deterioration of medical care in the country, decided to look for options abroad. They applied for a visa to Jordan, but after a month without a response, they decided to come to Beirut. At the American University of Beirut Medical Center, Mariam was diagnosed with colon cancer with metastasis to her liver. After a month of chemotherapy in Lebanon, Faisal said they had spent almost every dollar of the $19,000 saved for the trip. He explained, "We'll have to go back now to Najaf. But I went ahead and made another appointment at American University of Beirut Hospital for next month." Patients and families often travel back and forth between Iraq and Lebanon, visiting family and gathering money between trips.

In Iraq, chemotherapy is administered exclusively at government hospitals and remains free of charge.[26] It is striking that many middle-class families are turning down completely free chemotherapy at home and are instead traveling to Lebanon where they pay thousands of dollars in private hospitals. The families at the Weekend Hotel were not wealthy by Iraqi standards. They were hardware shop owners, boiler operators in

factories, journalists, government accountants, mechanics, and clothing store owners. Several ran out of money well before they anticipated due to the high costs of treatments in Beirut. They shared accounts of gathering funds from families, friends and religious organizations in order to fund the travel and treatment. The total expenditures of families interviewed for this study ranged from $20,000 to $100,000.

The Iraqi Ministry of Health has announced a flurry of initiatives since 2009 aimed at making improvements in oncology. Societies such as the Iraqi Society for Cancer Patients and Friends, the Breast Cancer Society of Iraq, the Mosul Oncology Society, and the Iraqi Medical Physics Society have been established. The Ministry of Health recently announced the goal of constructing four major oncology centers in Iraq's largest cities followed by specialized oncology units in each governmental general hospital.[27] It remains to be seen if these steps will make a substantive difference in the long run.

The depleted uranium debate

The disastrous breakdown of oncology care in Iraq has not caused major concern and debate on the world stage. International attention regarding cancer in Iraq has been directed towards the controversy over the connection between the Allied use of depleted uranium weapons and cancer rates in Iraq. During the 1991 aerial campaign over Iraq, the US utilized approximately 340 tons of missiles containing depleted uranium (DU).[28] In the years that followed, a DU controversy emerged. Iraqi Health Under Secretary Shawqi Sabri Murcos stated at a 1998 conference in Baghdad: "The use of depleted uranium has caused irreparable damage to Iraq's people and its environment…Our surveys show a dramatic increase in cases of leukaemia, especially among children in areas of southern Iraq bombed by the allies."[29] During the 1990s, the Iraqi government's Committee for Pollution Impact by Aggressive Bombing supported and disseminated research on cancer and DU. At a 1999 conference in London, representatives of the Committee reported that rates of cancer and congenital abnormalities had doubled since the 1991 Gulf war, with as much as 5-fold increases in areas of the country heavily hit during the Allied bombing campaign.[30]

American and British government officials repeatedly rejected these claims and offered their own research in support of the claim that DU did not pose a health risk. In the aftermath of the 2003 invasion, Lieutenant-Colonel David Lapan said: "There've been a number of studies – by the UK's Royal Society and the World Health Organization, for example – into the health risks of DU, or the lack of them…One thing we've found in these various studies is that there are no long-term effects from DU."[31]

These studies did not involve site-specific research in Iraq.[32,33] Moreover, the reports were not nearly as dismissive of a potential association between DU and cancer as Lapan's comments suggest. The Royal Society report states: "DU is radioactive and poisonous. Exposure to sufficiently high levels might be expected to increase the incidence of some cancers, notably lung cancer, and possibly leukaemia, and may damage the kidneys. The key question is whether exposures to DU on the battlefield are such that the

increased incidence of cancer, or the likelihood of kidney damage, are insignificant or are high enough to cause concern."[34] The report goes on to establish that more research must be done in order to determine the plausibility of battlefield or war-related exposure. Tragically, US military and defense officials have a long track record of looking to scientific evidence more for support of their positions than for illumination. Health-related statistics and claims have often become points of contestation within the politics of war.[35]

With the US as an occupier/ally following the 2003 invasion, the new Iraqi government no longer makes public pronouncements blaming the American military for a cancer epidemic. In recent years, teams of independent researchers (mostly Iraqis due to the security situation) have published studies in peer-reviewed journals exploring the plausibility of a connection between environmental exposure and cancer, birth defects, etc. [36],[37],[38] While these studies indicate potential increases in the incidence of cancer and birth defects, the authors generally recognize the need for further study and the difficulty of making firm conclusions about causality. One major obstacle to research has been the lack of solid long-term data. The Ministry of Health established a cancer registry in 1976 and has reported data on cancer incidence annually. According to the registry, cancer incidence rose from 31.1 per 100,000 people in 1991 to 52.8 per 100,000 people in 2006. This is a large increase, and it may not even reflect the true total number of cases. Many Iraqis seek cancer care abroad and therefore go unaccounted for. Hospital reporting to the cancer registry has been notoriously poor since the start of the sanctions period.[39]

Beyond depleted uranium

Importantly, any attempt to investigate the effects of war-related environmental exposure cannot focus solely on depleted uranium. The impact of the 1991 Gulf War on the Iraqi environment was disastrous. It included widespread pollution of land, sea, and rivers. Oil well fires led to oil spills and toxic smoke.[40] Al-Hadithi et al. call attention to a broader range of substances now found in abnormally high levels such as heavy metals, dioxins, and white phosphorus.[41]

Iraqi cancer patients at the Weekend Hotel generally objected to too much focus on DU over and above other potential war-related toxins. Interviewees identified a broad range of potential carcinogenic substances that had surfaced under conditions of war, including Allied weapons, bad medicine from Iraq's now eroded hospitals, impure foodstuffs from the UN sanctions period, and sewage from destroyed sanitation systems. Politicized contestation over cancer in Iraq has contributed to a hyper-focus on DU. For those who have lived through the daily realities of two wars and sanctions, the toxic landscape is far more complex and varied. Indeed, Iraqi cancer patients may be our wisest and most helpful commentators on the subject of environmental exposure and disease in Iraq, and may help lead to a broader and more intense allocation of research resources to studying the full range of public health problem the sanctions and war eras have seen.

Conclusion

Since 1991 Iraq has suffered a disastrous breakdown of health and health care. Conflict-related mortality and morbidity have been enormous, and one must take into account not only direct deaths due to bombings but also indirect sources of injury and death such as electrical shocks, falls, accidental gunshots, etc. One must also consider the long-term challenges of malnutrition and disease due to the deterioration of crucial infrastructures, including the once robust national health system. Iraqi hospitals are still suffering from severe shortages in medical supplies and medical professionals. Increasingly, Iraqis sell homes, cars and other possessions in order to travel abroad for care.

Against this backdrop of broader health decline, Iraq faces a cancer crisis. Though Iraqis can go to private clinics and hospitals for surgeries and many other treatments, chemotherapy and radiotherapy are exclusively administered in state-run hospitals. As cancer patients face the frustration of failed diagnoses and failed treatments, many have decided to undergo chemotherapy and other treatments in Beirut and Amman. The breakdown of oncology in Iraq has not reached the world stage as a major concern, however. Due to the politics of war, cancer and depleted uranium have sparked more attention and debate. It is crucial for further research to investigate the question of environmental exposure and cancer. However, it is equally important for health researchers to investigate Iraq's crisis of oncology and medical care. Until further investment and trust in Iraq's medical institutions are restored and until toxic war-related environmental exposures are better understood and ameliorated, the Iraqi occupancy at Beirut's Weekend Hotel, as well as hotels and hospitals throughout the Middle East, will increase with each passing year.

Endnotes

[1] Aziz, C (2003). Stuggling to Rebuild Iraq's Health-care System. The Lancet 362(9392): 1288–1289 - 1289.

[2] Garfield, Richard, Sarah Zaidi, and Jean Lennock (1997). Medical Care in Iraq After Six Years of Sanctions. BMJ: British Medical Journal 315(7120): 1474–1475.

[3] Aziz, C (2003). Stuggling to Rebuild Iraq's Health-care System. The Lancet 362(9392): 1288–1289.

[4] Garfield, Richard, Julia Devin, and Joy Fausey (1995). The Health Impact of Economic Sanctions. Bullentin of the New York Academy of Medicine 72(2): 454–469.

[5] Salvage, Jane (2007). "Collateral Damage": The Impact of War on the Health of Women and Children in Iraq. Midwifery 23(1): 8–12.

[6] Garfield, Richard, Julia Devin, and Joy Fausey (1995). The Health Impact of Economic Sanctions. Bullentin of the New York Academy of Medicine 72(2): 454–469.

[7] McCutcheon, Richard (2006). Rethinking the War Against Iraq. Anthropologica 48(1): 11–28.

[8] Roberts, Les, Riyadh Lafta, Richard Garfield, Jamal Khudhairi, and Gilbert Burnham(2004). Mortality Before and After the 2003 Invasion of Iraq: Cluster Sample Survey. The Lancet 364(9448): 1857–1864.

[9] Donaldson, Ross I, Yuen Wai Hung, Patrick Shanovich, Tariq Hasoon, and Gerald Evans (2010). Injury Burden During an Insurgency: The Untold Trauma of Infrastructure Breakdown in Baghdad, Iraq. The Journal of Trauma 69(6): 1379–1385.

[10] Webster, Paul C (2011). Iraq's Health System yet to Heal from Ravages of War. The Lancet 378(9794): 863–866.

[11] Al-Dewachi, Omar (2008). The Professionalization of the Iraqi Medical Doctors in Britain. Harvard University.

[12] MEDACT (2008). Rehabilitation Under Fire: Health Care in Iraq 2003–2007. London: MEDACT.

[13] Webster, Paul C (2011). Iraq's Health System yet to Heal from Ravages of War. The Lancet 378(9794): 863–866.

[14] Doocy, Shannon, Sana Malik, and Gilbert Burnham (2010). Experiences of Iraqi Doctors in Jordan During Conflict and Factors Associated with Migration. American Journal of Disaster Medicine 5(1): 41–47.

[15] Aziz, C (2003). Stuggling to Rebuild Iraq's Health-care System. The Lancet 362(9392): 1288–1289.

[16] Al-Dewachi, Omar, Mac Skelton, VK Nguyen, et al. "The Changing Geographies of War and Health in the Arab Region, with a Focus on Iraq and Syria." (forthcoming 2013).

[17] Sikora, K.(1999) Cancer Services Are Suffering in Iraq. BMJ 318(7177): 203–203.

[18] Sikora, K. (1999) Cancer Services Are Suffering in Iraq. BMJ 318(7177): 203–203.

[19] Duffy, Jonathan (2003) Iraq's Cancer Children Overlooked in War. BBC, April 29. http://news.bbc.co.uk/2/hi/middle_east/2982609.stm, accessed September 1, 2012.

[20] Frangoul, Haydar, Mazin F. Al-Jadiry, Yu Shyr, et al. (2008). Shortage of Chemotherapeutic Agents in Iraq and Outcome of Childhood Acute Lymphocytic Leukemia, 1990–2002. New England Journal of Medicine 359(4): 435–437.

[21] Duffy, Jonathan (2003) Iraq's Cancer Children Overlooked in War. BBC, April 29. http://news.bbc.co.uk/2/hi/middle_east/2982609.stm, accessed September 1, 2012.

[22] Al-Hadad, Salma Abbass, Mazin Faisal Al-Jadiry, Amir Fadhil Al-Darraji, et al. (2011). Reality of Pediatric Cancer in Iraq. Journal of Pediatric Hematology/oncology 33 Suppl 2: S154–156.

[23] Skelton, JM (2012). Iraqis Seeking Medical Care in Lebanon: War, Cancer and Mobility. Masters thesis. The American University of Beirut.

[24] My research on Iraqi cancer patients formed part of a broader ongoing effort led by Omar Al-Dewachi on Iraqis seeking various forms of medical care throughout the Middle East.

[25] All names are pseudonyms.

[26] Though Iraqis can go to private clinics and hospitals for surgeries and many other cancer-related treatments, chemotherapy and radiotherapy are exclusively administered in state-run hospitals. This is not to say that private hospitals enjoy stellar reputations, as stories of failed biopsies and diagnoses in private Iraqi hospitals circulate widely.

[27] Mula-Hussain, Layth Y.I. (2010) The Challenges of Providing Cancer Care in a War-torn Nation – The Iraqi Experience. American Society of Clinical Oncology.

[28] Peterson, Scott (2000). Depleted Uranium Haunts Kosovo and Iraq. Middle East Report (215): 14.

[29] Ciment, J. (1998). Iraq Blames Gulf War Bombing for Increase in Child Cancers. BMJ 317(7173): 1612–1612.

[30] Aitken, M. (1999) Gulf War Leaves Legacy of Cancer. BMJ (Clinical Research Ed.) 319(7207): 401.

[31] Kirby, A. (2003) US Rejects Iraq DU Clean-up. April 14. http://news.bbc.co.uk/2/hi/science/nature/2946715.stm, accessed September 19, 2012.

[32] No DU Weapons Risk, Say Experts (2001) BBC, March 6. http://news.bbc.co.uk/2/hi/europe/1205632.stm, accessed August 29, 2012.

[33] The panel of experts was assembled by the European Commission after claims that veterans of peacekeeping missions in Bosnia and Kosovo had developed cancer after being exposed to depleted uranium used in armor-piercing weapons. The question of cancer in

Iraq was addressed only indirectly. (No DU Weapons Risk, Say Experts (2001) BBC, March 6. http://news.bbc.co.uk/2/hi/europe/1205632.stm, accessed August 29, 2012.)

[34] The Health Hazards of Depleted Uranium Munitions. Part 1. The Royal Society. May 22, 2001. http://royalsociety.org/policy/publications/2001/health-uranium-munitions-i/

[35] Salvage, Jane (2007). Politics of evidence: conflict and health in Iraq. International Journal of Evidence Based Healthcare. 5: 261-5.

[36] Al-Sabbak, M, S Sadik Ali, O Savabi, et al. (2012) Metal Contamination and the Epidemic of Congenital Birth Defects in Iraqi Cities. Bulletin of Environmental Contamination and Toxicology 89(5): 937–944.

[37] Busby, Chris, Malak Hamdan, and Entesar Ariabi (2010). Cancer, Infant Mortality and Birth Sex-Ratio in Fallujah, Iraq 2005–2009. International Journal of Environmental Research and Public Health 7(7): 2828–2837.

[38] Alaani, Samira, Mozhgan Savabieasfahani, Mohammad Tafash, and Paola Manduca (2010). Four Polygamous Families with Congenital Birth Defects from Fallujah, Iraq. International Journal of Environmental Research and Public Health 8(1): 89–96.

[39] Mula-Hussain, Layth Y.I. (2010) The Challenges of Providing Cancer Care in a War-torn Nation – The Iraqi Experience. American Society of Clinical Oncology.

[40] Salvage, Jane (2007). Politics of evidence: conflict and health in Iraq. International Journal of Evidence Based Healthcare. 5: 261-5.

[41] Al-Hadithi, Tariq S, Jawad K Al-Diwan, Abubakir M Saleh, and Nazar P Shabila (2012). Birth Defects in Iraq and the Plausibility of Environmental Exposure: A Review. Conflict and Health 6(1): 3.