



THE HEALTH CONSEQUENCES OF MIGRATION: MEETING THE HEALTH NEEDS OF DISPLACED POPULATIONS

Bianca Brijnath, PhD
Jessica L. Browne, PhD
Jennifer A. Halliday, BHSc (Hons)
André M.N. Renzaho, PhD, MPH

Abstract

The present scale of migration raises a number of public health challenges. In this paper, the health consequences of migration are examined among forced migrants (internally displaced people and refugees) and voluntary migrants. Alongside we also focus on the health needs of migrants in developed and developing nations. Theory and evidence are linked to document existing needs and access to health services. We argue that public health has a role to play in building social inclusiveness and equity, and make recommendations about how this process of inclusion can be facilitated.

Keywords: Migrants, refugees, IDPs, health consequences, health access, social inclusiveness

Email Alerts/Reprints/Permission: jid@evresearch.ca

Subscription: JID is a Free Open Access Journal

Archives: <http://journalinternaldisplacement.webs.com/archives.htm>

Submission (July 2011 Edition): <http://journalinternaldisplacement.webs.com/announcements.htm>

JID is produce and published by EV Research Inc – www.evresearch.ca

Authors' Affiliation

World Health Organization (WHO) Collaborating Centre for Obesity Prevention, Deakin University, Australia.

THE HEALTH CONSEQUENCES OF MIGRATION: MEETING THE HEALTH NEEDS OF DISPLACED POPULATIONS

Bianca Brijnath, PhD
Jessica L. Browne, PhD
Jennifer A. Halliday, BHSc (Hons)
André M.N. Renzaho, PhD, MPH

Introduction

Mass movements of people have occurred throughout history but more recently the scale and frequency of migration has significantly increased. People move either voluntarily – for improved employment, pay prospects, education opportunities, and lifestyle factors – or because they are forcibly displaced by conflict, famine, development or disaster. The United Nations (UN) estimated that in 2008 there were 214 million international migrants, including those who migrated to developed countries in search for improved socio-economic opportunities (about 60 percent) (UN, 2009).

People who require humanitarian assistance predominantly move laterally, i.e., from developing to developing countries. Reporting on global trends in refugees and asylum-seekers, the United Nations High Commissioner for Refugees (UNHCR) estimated at the end of 2008, 42 million people were forcibly uprooted by conflict and persecution worldwide; of this figure 15.2 million were refugees, 827,000 were asylum-seekers and 26 million were internally displaced persons (IDPs). The report also highlighted that 80 percent of the world's refugees and the majority of IDPs were located in resource poor nations (UNHCR, 2009).

A number of public health challenges arise from the current scope and scale of migration; depending on the category of migration – voluntary or forced, international or internally displaced – migrants will have varied and complex health needs. These may include pre-existing health vulnerabilities and poor health profiles associated with states of poverty and political instability, and/or new physical and mental illnesses that develop as a consequence of migration (Toole, 1995; Toole and Waldman, 1997). In the case of forced migration, increased mass population displacement often leads to a global response where refugees are totally dependent on humanitarian aid, which, according to Renzaho (2006) has serious public health implications. He observes that slow donor response can result in irregularity and delayed delivery of emergency supplies which exacerbates existing shortages and insecurities of food, medicines, temporary accommodation and the like. He further notes that poor infrastructure, logistical difficulties, and the ethical dilemma of responding to refugee needs but not the needs of the local population in resettlement areas are additional challenges in complex humanitarian emergencies.

Meeting the health needs of refugees and migrants in developed countries also requires a comprehensive and complex response. In the literature, the term 'migrant'

often refers to samples that are made up of both refugees and voluntary migrants, which sometimes obfuscates the specific health needs of each group. In this paper we separate forced migrants (refugees and IDPs) and voluntary migrants (those who move mainly to developed countries in search of better socio-economic opportunities) and examine the health needs of each group using theory and evidence. We begin with the issues confronting forced migrants in complex health emergencies and the health needs of IDPs. We then outline the health effects of migration on voluntary migrants before analysing the common issues of acculturation and access to health services. We argue that public health has a role to play in building social inclusiveness and equity between voluntary migrants, refugees and IDPs and the local populations in resettlement areas, and conclude with recommendations about how this process of inclusion can be facilitated.

Forced Migration: Complex Humanitarian Emergencies and Health Effects for IDPs and Refugees

Forced migration results in within-border (IDPs) and cross-border (refugees) mass population displacements. Forced migration is often associated with complex humanitarian emergencies (CHEs) (Macrae and Zwi, 1994). According to Salama and colleagues (2004), in CHEs:

Mortality among the civilian population substantially increases above the population baseline, either as a result of the direct effects of war or indirectly through increased prevalence of malnutrition and/or transmission of communicable diseases, particularly if the latter results from deliberate political and military policies and strategies (national, sub-national, or international) (p.1801).

Renzaho (2006) argues in the case of CHEs, the primary purpose of international humanitarian aid is to save lives and restore the livelihood system. Meeting the health needs of forced migrants requires an understanding of the complex and varied health profiles of refugees and IDPs prior to displacement. This enables health services in resettlement areas to compile baseline data, develop new programmes or modify existing ones to meet health needs, and train staff to deliver services in a culturally sensitive and inclusive manner.

The structuration theory, developed by Anthony Giddens (1984) helps us understand the complex health needs of refugees and IDPs prior to and after displacement. The theory stipulates that pre-existing social structures are governed by a distinct set of norms and/or laws, which provide an avenue and context in which all human actions are performed. Giddens argues that structures comprise distinct rules and resources of particular social systems, and that each social interaction represents an interaction between individuals and the reproduction of overarching social structures. Each interaction can result in a simulation of the existing social structure but can also lead to modifications of the pre-existing structure (Giddens, 1984; Goodhand and Hulme, 1999). Goodhand and Hulme build on this theory to note that in CHEs:

Conflict is both a setting for social action and a product of such action: existing patterns of violence or non-violence can be modified through individual agency, which in turn is itself shaped by structural and institutional processes. Thus, the understanding of conflict requires detailed analysis of the relationship between individuals and structural features [in complex political emergencies] to tease out the links between the two (p.23).

Indeed, understanding the link between individuals and structural features in political emergencies could shed light on the triggers of war, conflict, famine, and associated forced population displacement. However, the purpose of this paper is not to analyse the pre-migration social action, but rather to understand the public health challenges associated with forced migration. For example, the finding that IDPs tend to have higher mortality and morbidity rates than refugees may be due to the fact that their health problems are worsened as a consequence of not being afforded the protection offered by UN refugee sanctions (Toole, 2000). Nevertheless, given the considerable overlap in the pre-existing health profiles of IDPs and refugees (due to the country of origin being impacted by war and/or poverty) and the challenges both groups face, they are discussed together here.

Elevated mortality and morbidity rates among refugees and IDPs are often associated with living conditions in home countries and refugee and emergency camps. Thomas and Thomas (2004) argue the health needs of these groups reflect the long term conflict, persecution, poverty or famine within the country or region of origin, and also the health challenges faced and problems acquired as a result of fleeing these regions and resettling elsewhere. Therefore the health outcomes of refugees and IDPs are a consequence of interplay between pre-migration, migration, and post-migration factors. In some cases, prior good health status can be significantly diminished as a result of displacement; for example, diarrheal disease in refugee camps has been shown to increase the prevalence of malnutrition as previously well-nourished groups are forced to live in unsanitary, unhygienic conditions (Toole and Waldman, 1997). Disruption of food and water supplies, limited or inadequate health care, poor sanitation, and substandard housing in turn enhance the risk of nutritional diseases, diarrheal diseases, acute respiratory infections, and malaria (Burkle, 2006; Toole and Waldman, 1988; Toole et al., 1988). Data from African, Asian, and European refugee and emergency camps have repeatedly shown that poor sanitation (e.g. a lack of latrines resulting in water source contamination) and a scarce and low-quality water supply create conditions that enable cholera and dysentery epidemics (Center for Disease Control, 1992; Goma Epidemiological Group, 1995). Communicable diseases also have compounding effects on each other and increase susceptibility to new infections. For example, the effects of malaria have been shown to be more virulent because of malnutrition, just as malnutrition can result from recurrent malaria infections (Center for Disease Control, 1992). Likewise, as a result of a famine in Ethiopia in 2000, 22% of internally displaced children under 5 years of age died from measles (Salama et al., 2001).

Most health challenges brought about by CHEs are the result of breakdown of the social fabric and infrastructure in which refugees and IDPs live, prior to and post-displacement. This not only increases the risk of communicable disease but also diminishes the capacity of settlement services and family tracing services which help to facilitate family cohesion, social functioning and individual and community mental wellbeing (Médecins Sans Frontières, 1995; Noji, 2005). It is now commonly accepted that the most effective programs to prevent mortality and morbidity in CHEs need to be diverse, comprehensive and include protection from violence, maternal and child health programs, provision of adequate food rations, clean water and sanitation, and the control of endemic communicable diseases (Toole and Waldman, 1997). The effectiveness of public health programs in addressing these challenges over the past 30

years is due in part to the evolution and standardisation of guidelines. The first technical guidelines on emergency nutrition were developed in 1978, followed by the first textbook on refugee health in 1983, and then the Red Cross *Code of Conduct* (1994) which outlines universal basic standards to govern emergency response (Simmonds et al., 1983; Ville de Goyet et al., 1978). In 1997, Médecins Sans Frontières put forward a standardized emergency response framework in which ten public health priorities were identified. These priorities were targeted to meet population health needs in the early phase of emergencies and in the long-term once mortality and morbidity as a result of infectious outbreaks were under control. The “Do No Harm” framework by Mary Anderson (1999) and more recently the Sphere Humanitarian Charter and Minimum Standards in Disaster Response launched in 1997 and updated in 2004 (The Sphere Project 2004) are also noteworthy. All of these guidelines have contributed to improved function and delivery of services which has seen a subsequent decrease in mortality rates in refugee camps internationally (Salama et al., 2004).

Despite these achievements, a number of diseases in CHE situations are not adequately addressed and there is still some way to go. For example, neglected tropical diseases, such as schistosomiasis, elephantiasis, trachoma, American trypanosomiasis, African sleeping sickness, Guinea worm and buruli ulcer (Musgrove and Hotez, 2009), do not form part of the response to CHEs. Neglected diseases have been found to have negative social and economic consequences in the affected communities as well as having enormous effects on individuals in terms of making them more susceptible to other infectious diseases or worsening people’s health status (Skolnik and Ahmed, 2010). When neglected tropical diseases are left untreated, they may delay the effectiveness of public health interventions in CHEs.

The sexual and reproductive health of women warrants special consideration because conflict and political violence leave women vulnerable to gender-based physical and sexual abuse resulting in physical injuries, unwanted pregnancies, unsafe abortions, sexual dysfunction, and sexually transmitted infections (STIs) (Austin et al., 2008). Though there is limited data on the prevalence of HIV infection in refugee populations (Center for Disease Control, 1992), given many refugees and IDPs move to and from areas with high HIV/AIDS prevalence, particularly in Sub-Saharan Africa, this raises additional challenges for health systems. Prolonged conflict and collapse of health infrastructure may disrupt HIV/AIDS programmes with restricted availability of antiretroviral drugs and condoms.

Alongside risks to bodily integrity and personal safety, acute gender inequity, violence against women, and political instability can have negative mental health consequences (Al Gasseer et al., 2004). Refugees and IDPs may have increased mental health needs as a result of experiencing violence and trauma which can result in severe and ongoing mental illness. One systematic review of mental health surveys of refugees living in 17 different countries indicated that there is a very high prevalence of Post-Traumatic Stress Disorder (PTSD) diagnoses, with refugees up to 10 times more likely to develop PTSD than the general Western population (Fazel et al., 2005). This same study also found that depression and generalised anxiety disorder were common amongst refugees that had resettled in Western countries. Similarly, another review found that poor mental health outcomes were common amongst refugees from regions such as Southeast Asia, the Middle East, and Europe, but also highlighted the fact that culturally

sensitive approaches to diagnose and treat refugee mental health issues were lacking (Keyes, 2000). Earlier studies have found particularly high prevalence rates of PTSD, anxiety, and depression in refugee children (see Cohn et al., 1985; Sack et al., 1993). A meta-analysis of studies examining factors that contribute to poor mental health outcomes for displaced people found that post-displacement conditions such as institutionalised living and poor economic opportunities were all associated with worse psychological health, with the elderly, women, and more highly educated being particularly vulnerable (Porter and Haslam, 2005).

The Health Effects for Voluntary Migrants Migrating to Developed Countries

Newly arrived voluntary migrants tend to report better health status than the local population, including reduced risk factors for disease, lower rates of disease and lower mortality rates (Abraido-Lanza et al., 1999; Carrasco-Garrido et al., 2009; Dominguez et al., 2008). There is debate about whether this improved health status is due to factors which support 'good' health such as genetics, health promoting behaviours and the presence of family support, or whether it is an effect of migration and migration processes (Abraido-Lanza et al., 1999; Dunn and Dyck, 2000; Newbold, 2005). The 'Healthy Migrant Effect' posits that healthy people are more likely to migrate than unhealthy individuals because of immigration filtering criteria such as health status, economic earning potential, educational qualifications and/or sponsorship (Abraido-Lanza et al., 1999; Dunn and Dyck, 2000; Newbold, 2005; Rubalcava et al., 2008; Thomas and Thomas, 2004).

However following migration, over time, the health status of migrants begins to decline to the same level as the local population (Abraido-Lanza et al., 1999; Newbold, 2005; Rubalcava et al., 2008; Thomas and Thomas, 2004). Dunn and Dyck (2000) reported that migrants with a stay of more than 10 years in the host country were more likely to report fair or poor health status, a chronic condition and an overnight hospitalization in the previous year compared to those with a stay of less than 9 years. In developed countries, voluntary migrants and refugees experience lifestyle-related conditions and chronic diseases such as obesity, type 2 diabetes mellitus, and cardiovascular disease to an equal degree (Thomas and Thomas, 2004). But there are ethnic and gender specificities (Popkin and Udry, 1998; Renzaho et al., 2006); for example an Italian study reported a prevalence of more than 50% overweight or obesity ($BMI \geq 25kg/m^2$) in Moroccans and Kosovars (males and females) and Roma (males), but not amongst Pakistanis males (Gualdi-Russo et al. 2009). Of the female migrants included in the sample (Moroccans, Kosovars, Romas) all ethnic groups had significantly higher mean BMI's compared to the local Italians ($BMI=23.9kg/m^2$) (Gualdi-Russo et al., 2009). Of the male migrants included in the sample (Senegalese, Moroccans, Tunisians, Pakistanis, Kosovars, Roma), only the mean BMI of the Roma ($BMI=27.7kg/m^2$) was significantly higher than the BMI of the local Italians ($BMI=25.2kg/m^2$) (Gualdi-Russo et al., 2009).

Environmental differences between and within countries also influence the prevalence of chronic diseases. In a study of African migrant children in Australia, Renzaho et al. (2008) demonstrated that migration, lifestyle change, environmental factors and cultural perceptions were contributing factors to increased weight gain. In this study, it was found that children who were more assimilated (i.e. less traditional) were more likely to have a higher BMI and develop obesity promoting habits such as sedentary activity and the consumption of energy dense food. Similarly when the BMI of

Ghanaians in rural and urban areas of Ghana and that of Ghanaian migrants to the Netherlands were compared, the Dutch-Ghanaians (male 69.1%, female 79.5%) were mostly likely to be overweight and obese, followed by the urban Ghanaians (22.0%, 50.0%), and then the rural Ghanaians (10.3%, 19.0%) (Agyemang et al., 2008).

In terms of personal risk-taking (e.g. smoking cigarettes, drug and alcohol use, and unsafe sexual practices) voluntary migrants are initially less likely than the host population to engage in such behaviours (Flores and Brotanek, 2005; Lassetter and Callister, 2008). But this too changes with increased length of stay; Johnson et al. (2002) found that migrants with a length of stay in the USA less than 15 years were less likely to report substance use (drugs and alcohol) than migrants with a longer length of stay or those native to the USA (Johnson et al., 2002). Some migrant groups also engage in specific types of risky-behaviours at higher levels than the host population. A German study investigating smoking in international students found that male international students had higher rates of smoking (39%) than students from the host country (11%) (Kramer et al., 2004). Similarly risky sexual behaviours, such as not using condoms or having multiple partners, have also been highlighted as a health issue for particular migrant groups like international students and male migrants from West Africa (Gras et al., 2001; Rosenthal et al., 2008).

While there are differences in personal risk-taking, the World Health Organization (WHO) found that migrant workers, especially those who are undocumented, are more likely to work in high-risk settings, under poor working conditions (e.g. long hours, insufficient remuneration and inadequate supervision) than local populations (WHO, 2003). This negatively impacts on their health and they are at greater risk of accidents and injuries, chemical and pesticide-related illnesses, infectious diseases, and chronic conditions (Hansen and Donohoe, 2004; Villarejo, 2003).

Alongside working conditions, living conditions directly impacts on health. Voluntary migrants face stressors related to employment, money, living conditions, homesickness, language barriers and discrimination (Wong et al., 2009). Wong et al. (2009) investigated the mental health of Chinese migrant workers and found that 25% of male and 6% of female migrant workers surveyed ($n = 475$) could be classified as mentally unhealthy, experiencing symptoms of obsession and compulsion, interpersonal sensitivity, hostility, depression, and phobic anxiety. Thai migrant workers in Israel had higher levels of psychological distress because of migration stressors (e.g. homesickness and the perception that migration is difficult), traditional health beliefs, quality of current social relationships, drinking behaviour, age and occupational exposure (e.g. chemical exposure resulting in clothing contamination, smells, and eye irritations) (Griffin and Soskolne, 2003). International students also report strong feelings of distress, though there is some debate about whether they face equivalent or increased risk of mental health problems compared to domestic students (Mori, 2000; Pedersen, 1991; Rosenthal et al., 2008; Soet and Sevig, 2006). Nevertheless, there is broad consensus that international students are less likely to seek professional help for mental health problems than domestic students (Mori, 2000; Soet and Sevig, 2006).

Acculturation

Acculturation refers to the cultural changes that result when different cultural groups – voluntary migrants and host populations – come into contact with each other (Redfield et al., 1936; Rudmin, 2003a). While in cross-cultural psychology, the term has been criticised for its conflation with assimilation, it can also include integration, marginalisation and separation (Ward, Bochner, Furnham, 2001). Renzaho et.al (2008) proposed acculturation could lead to four possible outcomes: traditional (home-culture orientation only), assimilated (new country-culture orientation only), integrated (both orientations) and marginalized (neither orientation).

Acculturation is multidimensional and occurs at community and individual levels amongst migrants and the dominant society. Encountering beliefs and practices antithetical to their own can also create ‘cultural shock’ amongst migrants (Ward et al., 2001). As new friendships are established migrants have to simultaneously recognise new social norms and accept the loss of their earlier roles, a process that occurs with time (Bhugra, 2003). Moreover living conditions in the resettlement area and levels of acculturation influence risk-taking behaviour (either in accord with or different to local populations), thus impacting on the health status of migrants.

At a very basic level migration involves a cost-benefit analysis as people weigh the socio-economic costs and benefits of moving versus staying (Moore and Shellman, 2002). Though the cultures of the new environment may gradually adapt to accommodate migrants and their cultural beliefs and practices, typically it is migrants, especially those newly arrived, who experience the most psychological and physical change. The processes whereby migrants adapt and reorganise their lives to fit within their new socio-cultural environments have been widely studied; ‘Socio-cultural’ models focus on the demands faced by migrants to adapt to their new environment (Ward and Kennedy, 2001), ‘Social identity’ models examine how notions of ethnicity and identity change through intercultural contact (Ward et al., 2001), and economic models focus on migrant’s capacity to access the labour market and attain employment relevant to their skills and qualifications (Aycaan and Berry, 1996). Common across these models are social isolation, acculturation, and degree of acceptance by the host country, which affect migrants’ ability to integrate into their new countries.

Loneliness, alienation, and severance of familiar networks and ties all contribute to feelings of social isolation among migrants (Manderson and Vasey, 2009). Moving to a new place implies physical and cultural separation from home and immersion into societies where the attitudes and approaches to social life (kinship, employment, and friendship) may be very different. The mental health-social isolation nexus has already been discussed in this paper, but note here that existing feelings of anxiety and depression can be exacerbated by loneliness and social isolation (Porter, 2007; Ryan et al., 2008; Silove et al., 1997).

Availability and Access of Services

Migrants are often less likely to access health services compared to the host population. This occurs for geographic (e.g. distance to clinic), logistic (e.g. clinic opening hours), economic (e.g. user-pays services), educational (e.g. level of health literacy) and cultural reasons (e.g. matching beliefs about the aetiology of disease and treatment). A lack of culturally appropriate services and language barriers are the main obstacles preventing

migrants from accessing health services. Miscommunication with health practitioners resulting in misdiagnosis and treatment, low health literacy, and limited knowledge about available services also present barriers to migrant's health-seeking behaviour (WHO, 2003). Often health professionals and health systems are not fully able to provide culturally sensitive and specific approaches, especially in the diagnosis and treatment of migrant mental health issues (Keyes, 2000). Additionally, standards of care may be contingent on income and capacity to pay, with reduced services offered if a person's insurance status cannot be established (WHO,2003).

Further, while developed host countries are more likely to have established and resourced health systems and services, access to these systems and services is often limited. Increased migration often raises questions in host countries about limiting access based on citizenship and/or residency status, alongside the cultural-appropriateness of existing services. Public debate on healthcare, migration and right to care can become bound in discourses of xenophobia and racism (Harper and Raman, 2008). If migrants and refugees are viewed by the mainstream society as diseased and/or deviant; they may experience heightened marginalisation, disempowerment and social exclusion (Harper and Raman, 2008). This is a process of 'othering' whereby those perceived to be different are marked, distanced, and stigmatised (Grove and Zwi, 2006). Constructing people as 'other' reinforces the normality and hegemony of the dominant group and sets up boundaries of 'us' and 'them.' Unfortunately public health has been co-opted in this 'othering' process with practices such as health screening and quarantining being inverted in some cases to justify human rights violations rather than address the health needs of displaced and vulnerable people (Koutroulis, 2003; Zwi and Alvarez-Castillo, 2003). Such practices may affect the accessibility, acceptability, affordability and appropriateness of a health service and some migrant communities may be underserved and/or hard to reach as a result (Penchansky and Thomas, 1981). Thus there is a need for migrants and their new societies to acculturate and adapt to each other to minimise the risk of such barriers.

Implications and the Way Forward

Meeting the complex health needs of migrants (voluntary migrants, refugees and IDPs), the existing requirements of local populations, minimising the negative health effects of each group on the other and maximising the positive health effects, necessitate a multi-disciplinary approach of which public health is just one arm. Work needs to be done at local, national and international levels to broker greater equity, inclusion and access to services. We argue that public health has specific roles to play in this process in service delivery, advocacy, and research.

We begin by acknowledging successes and advocating knowledge transfer. Existing guidelines for CHEs have illustrated the positive outcomes that can be achieved when aid programs are tailored to anticipate complex and varied health needs of refugees and IDPs. Planning for the immediate and long-term helps to minimise the health risks associated with forced displacement and improves mortality and morbidity. But no equivalent guidelines exist for programmes targeting voluntary migrants. Rather, voluntary migrants tend to undergo pre-departure health screening, which is limited in scope. The results are then used to exclude those who are not relatively healthy (i.e. people who have a communicable disease or chronic pre-existing health condition). But no efforts are made by health services in host countries to maintain the good health

status of migrants to prevent it from falling into line with local populations in resettlement areas. Health services for migrants in their host countries are offered on an ad hoc basis and are constrained by service agreements and funding models, which are not always designed to deliver services in a culturally-appropriate or targeted way. We argue that similar sorts of guidelines need to be developed for health services to more effectively meet the health needs of voluntary migrants in their new host countries.

In addition, windows of opportunity must be maximised and risks minimised for refugees and IDPs. By this we mean that the positive health status (such as high nutrition) that refugees and IDPs might have on entry to refugee camps need to be maintained. Preserving the prior good health status through preventative measures and a more inclusive environment necessitates widening existing programmes and developing new ones to meet specific needs. Simultaneously, services also need to anticipate specific vulnerabilities and prepare to meet those needs; just as CHE guidelines stipulate programmes for improving sanitation to reduce the risk of diarrhoeal disease in camps, so too host populations need to develop programmes to help mitigate the loneliness and isolation that comes with migration. Of course this is easier said than done, with barriers of cost, logistics, and adequate human capacity. But the reduction in burden of disease, improved mortality and morbidity, and increased productivity are critical outcomes, which need to be achieved.

Risks must also be minimised. When migration occurs to and from high endemic regions there is an increased risk of transferring communicable disease either to low endemic areas or to low risk population groups (Connolly et al., 2004; Toole and Waldman, 1997). This is not to suggest that migrants function as vectors; rather they may be a low risk population, whom as a consequence of migration (especially refugees and IDPs), now reside in high risk areas. We strongly advocate moving away from apportioning blame to particular groups for poor health; this is a tactic of 'othering', which in the past has led to heightened exclusion and stigmatisation of migrants by institutional and social forces. Rather we argue that where disease profiles rapidly change and/or where there is a double burden of disease – communicable/non-communicable, infectious/chronic – inequitable structures and living conditions need to be examined. This necessitates going beyond assessing the environmental drivers of disease to understanding issues of social justice and equity. As we have discussed, inequitable conditions of life create poor health; this applies not only to migrants but all people. While migrant groups may be affected disproportionately and in multiple ways, issues like the health of women or the health of the labour force not only affect migrants but the health of societies more generally. Researchers and providers of public health thus have a stake in advocating for greater equity.

Researchers and public health providers also have a role to play in collaboratively working to identify emerging needs and develop, implement and evaluate programmes in response to those needs. This goes beyond culturally sensitive processes to culturally-appropriate diagnostic and treatment modalities. Research has shown that there are multiple health systems and belief models which people subscribe to on the basis of culture, gender, geography and the like. In areas of mental health for example, research shows that there are cross-cultural variations in the symptomatology, treatment and even existence of mental illness (Good, 1996, 2002; Kleinman, 1980,1988; Mezzich et al., 1999). Human distress is not articulated in a singular manner. In documenting these

cultural differences, researchers have helped develop strategies to build inclusion and enhance migrant access to health services, improve tools for diagnosis and assessment, and frame culturally appropriate ways to deliver services.

As people move, whether voluntarily or forcibly, physical and psychological change will be experienced by them and by those in the areas where they resettle. Public health is part of the response and has a big role to play in promoting equity in service delivery, advocacy and research. We have outlined some strategies and justification as to how and why this should be done but do not claim that this is a comprehensive list. Much more needs to be done and this is paper adds to the discussion. This paper has illustrated that as people move across the world on an unprecedented scale, the political instabilities of one place are felt in many places, as the health consequences on migrants are also social and economic consequences for all.

References

- Abraido-Lanza AF, Dohrenwend BP, Ng-Mak DS, Turner JB. The Latino mortality paradox: A test of the 'Salmon Bias' and 'Healthy Migrant' hypotheses. *American Journal of Public Health*. 1999;89(10):1543-1548.
- Agyemang C, Owusu-Dabo E, de Jonge A, Martins D, Ogedegbe G, Stronks K. Overweight and obesity among Ghanaian residents in The Netherlands: How do they weigh against their urban and rural counterparts in Ghana? *Public Health Nutrition*. 2008;12(7):909-916.
- Al Gasseer N, Dresden E, Keeney G, Warren N. Status of women and infants in complex humanitarian emergencies. *Journal of Midwifery and Women's Health*. 2004;49(4):7-13.
- Anderson M. *Do no harm: How aid can support peace or war*. London: Lynne Rienner Publishers.1999.
- Austin J, Guy S, Lee-Jones L, McGinn T, Schlecht J. Reproductive health: A right for refugees and internally displaced persons. *Reproductive Health Matters*. 2008;16(31):10-21.
- Aycan Z, Berry JW. Impact of employment-related experiences on immigrants' psychological well-being and adaptation to Canada. *Canadian Journal of Behavioural Science*. 1996;28(3):240-251.
- Bhugra D. Migration and depression. *Acta Psychiatrica Scandinavica*. 2003;108(s418):67-72.
- Burkle FM. Emergencies. In: Antosia RE, Cahill, JD, editors. *Handbook of bioterrorism and disaster medicine*. New York: Springer. 2006. p. 31-38.
- Center for Disease Control. *Famine-affected, refugee, and displaced populations: Recommendations for public health issues*. Georgia: U.S. Department of Health and Human Services. 1992.
- Cohn J, Danielsen L, Inger Mygind Holzer K, Koch L, Severin B, Thgersen S, Aalund O. A study of Chilean refugee children in Denmark. *Lancet*. 1985;326(8452):437-438.
- Connolly M, Gayer M, Ryan M, Salama P, Spiegel P, Heymann D. Communicable diseases in complex emergencies: impact and challenges. *Lancet*. 2004;364(9449):1974-1983.
- Dunn JR, Dyck I. Social determinants of health in Canada's immigrant population: Results from the National Population Health Survey. *Social Science and Medicine*. 2000; 51(11):1573-1593.
- Fazel M, Wheeler J, Danesh J. Prevalence of serious mental disorder in 7000 refugees resettled in western countries: A systematic review. *Lancet*. 2005;365(9467):1309-1314.
- Flores G, Brotanek J. The healthy immigrant effect: A greater understanding might help us improve the health of all children. *Archives of Pediatrics and Adolescent Medicine*. 2005;159(3):295-297.
- Giddens A. *The constitution of society: Outline of the theory of structuration*. Berkeley: University of California Press.1984.
- Goma Epidemiological Group. Public health impact of Rwandan refugee crisis. What happened in Goma, Zaire, in July 1994? *Lancet*. 1995;345:339-344.
- Good BJ. Culture and DSM-IV: Diagnosis, knowledge and power. *Culture, Medicine and Psychiatry*. 1996;20(2):127-132.
- Goodhand J, Hulme D. From wars to complex political emergencies: Understanding conflict and peace-building in the new world disorder. *Third World Quarterly*. 1999;20(1):13-26.
- Gras MJ, van Benthem BHB, Coutinho RA, van den Hoek A. Determinants of high-risk sexual behavior among immigrant groups in Amsterdam: Implications for interventions. *Journal of Acquired Immune Deficiency Syndromes*. 2001;28(2):166-172.
- Griffin J, Soskolne V. Psychological distress among Thai migrant workers in Israel. *Social Science and Medicine*. 2003;57(5):769-774.
- Grove NJ, Zwi AB. Our health and theirs: Forced migration, othering, and public health. *Social Science and Medicine*. 2006;62(8):1931-1942.
- Gualdi-Russo E, Zironi A, Dallari G, Toselli S. Migration and health in Italy: A multiethnic adult sample. *Journal of Travel Medicine*. 2009;16(2):88-95.
- Hansen E, Donohoe M. Health issues of migrant and seasonal farmworkers. *Journal of Health Care for the Poor and Underserved*. 2004;14(2):153-164.
- Harper I, Raman P. Less than human? Diaspora, disease and the question of citizenship. *International Migration*. 2008;46(5):3-26.
- Johnson TP, VanGeest JB, Cho YI. Migration and substance use: Evidence from the U.S. National Health Interview study. *Substance Use and Misuse*. 2002;37(8-10):941-972.
- Keyes E. Mental health status in refugees: an integrative review of current research. *Issues in Mental Health Nursing*. 2000;21(4):397-410.
- Kleinman A. *Rethinking psychiatry: From cultural category to personal experience*. New York, NY: Free Press; 1988.
- Koutroulis G. Detained asylum seekers, health care, and questions of human(e)ness. *Australian and New Zealand Journal of Public Health*. 2003;27(4):381-384.

- Kramer A, Prufer-Kramer L, Stock C, Tshiananga J. Differences in health determinants between international and domestic students at a German university. *Journal of American College Health*. 2004;53(3):127-132.
- Lassetter J, Callister L. The impact of migration on the health of voluntary migrants in western societies: A review of the literature. *Journal of Transcultural Nursing*. 2008;20(1):93-104.
- Macrae J, Zwi AB. Famine, complex emergencies and international policy in Africa: An overview. In: Macrae J, and Zwi AB, editors. *War and hunger: Rethinking international responses to complex emergencies*. UK: London Zed Books; 1994. p. 6-36.
- Médecins Sans Frontières. *Refugee health: Approach to emergency situations*. London: MacMillan Education; 1995.
- Manderson, L., Vasey, K., *Cooking alone: Social capital and wellbeing among Iraqi women refugees in rural Victoria*. In: Woolcock, G, Manderson, L, editors. *Social capital and social justice: Critical Australian perspectives*. Darwin: Charles Darwin University Press; 2009.
- Mezzich JE, Kirmayer LJ, Kleinman A, Fabrega H, Jr., Parron DL, Good BJ, Lin KM, Manson SM. The place of culture in DSM-IV. *Journal of Nervous and Mental Disease*. 1999;187(8):457-464.
- Micronutrient Initiative, UNICEF, and Tulane University.. *Progress in controlling vitamin A deficiency*. Ottawa, CA: Micronutrient Initiative; 1997.
- Moore WH, Shellman SM. *Fear of persecution: A global study of forced migration*. Miami, FL: Department of Political Science, Florida State University; 2002.
- Mori S. Addressing the mental health concerns of international students. *Journal of Counseling and Development*. 2000;78(2):137-144.
- Musgrove P, Hotez PJ. Turning neglected tropical diseases into forgotten maladies. *Health Affairs*. 2009;28(6):1691-1706.
- Newbold B. Self-rated health within the Canadian immigrant population: Risk and the healthy immigrant effect. *Social Science and Medicine*. 2005;60(6):1359-1370.
- Noji EK. Public health in the aftermath of disasters. 2005. *British Medical Journal*. 2005;330(7504):1379-1381.
- Pedersen PB. Counseling international students. *The Counseling Psychologist*. 1991;19(1):10-58.
- Penchansky R, Thomas JW. The concept of access: Definition and relationship to consumer satisfaction. *Medical Care*. 1981;19(2):127-140.
- Popkin B, Udry J. Adolescent obesity increases significantly in second and third generation US immigrants: The National Longitudinal Study of Adolescent Health. *Journal of Nutrition*. 1998;128(4):701-706.
- Porter M. Global evidence for a biopsychosocial understanding of refugee adaptation. *Transcultural Psychiatry*. 2007;44(3):418-439.
- Porter M, Haslam N. Predisplacement and postdisplacement factors associated with mental health of refugees and internally displaced persons: A meta-analysis. *Journal of the American Medical Association*. 2005;294(5):602-612.
- Redfield R, Linton R, Herskovits MJ. Memorandum for the study of acculturation. *American Anthropologist*. 1936;38(1):149-152.
- Renzaho A, Swinburn B, Burns C. Maintenance of traditional cultural orientation is associated with lower rates of obesity and sedentary behaviours among African migrant children to Australia. *International Journal of Obesity*. 2008;32:594-600.
- Renzaho AM. Public health in complex humanitarian emergencies: Achievements, challenges and lessons learned. In: Clarke, M, editor. *Aid in conflict*. New York: Nova Science Publishers; 2006. p. 77-105.
- Renzaho AM, Gibbons C, Swinburn B, Jolley D, Burns C. Obesity and undernutrition in sub-Saharan African immigrant and refugee children in Victoria, Australia. *Asia Pacific Journal of Clinical Nutrition*. 2006;15(4):482-490.
- Rosenthal D, Russell J, Thomson G. The health and wellbeing of international students at an Australian university. *Higher Education*. 2008;55(1):51-67.
- Rubalcava LN, Teruel GM, Thomas D, Goldman N. The healthy migrant effect: New findings from the Mexican family life survey. *American Journal of Public Health*. 2008;98(1):78-84.
- Rudmin, F. W. Critical history of the acculturation psychology of assimilation, separation, integration, and marginalization. *Review of General Psychology*. 2003;7(1):3-37.
- Ryan D, Dooley B, Benson C. Theoretical perspectives on post-migration adaptation and psychological well-being among refugees: Towards a resource-based model. *Journal of Refugee Studies*. 2008;21(1):1-18.
- Sack W, Clarke G, Him C, Dickason D, Goff B, Lanham K, Kinzie J. A 6-year follow-up study of Cambodian refugee adolescents traumatized as children. *Journal of American Academy of Child and Adolescent Psychiatry*. 1993; 32(2):431-437.

- Salama P, Assefa F, Talley L, Spiegel P, van der Veen A, Gotway C. Malnutrition, measles, mortality, and the humanitarian response during a famine in Ethiopia. *Journal of the American Medical Association*. 2001;286(5):563-571.
- Salama P, Spiegel P, Talley L, Waldman R. Lessons learned from complex emergencies over past decade. *Lancet*. 2004;364(9447):1801-1813.
- Silove D, Sinnerbrink I, Field A, Manicavasagar V, Steel Z. Anxiety, depression and PTSD in asylum-seekers: Associations with pre- migration trauma and post-migration stressors. *The British Journal of Psychiatry*. 1997;170(4):351-357.
- Simmonds S, Vaughan P, Gunn W. Refugee community health care. Oxford: Oxford University Press; 1983.
- Skolnik R, and Ahmed A. Ending the neglect of neglected tropical diseases. Policy brief available at: <<http://www.prb.org/pdf10/neglectedtropicaldiseases.pdf>>. Accessed 12 May 2010.
- Soet J, Sevig T. Mental health issues facing a diverse sample of college students: Results from the College Student Mental Health Survey. *NASPA Journal*. 2006;43(3):410-431.
- The Sphere project. Humanitarian charter and minimum standards in disaster response. Geneva: The Sphere Project.2004.
- Thomas S, and Thomas S. Displacement and health. *British Medical Bulletin*. 2004;69(1):115-127.
- Toole M. Mass population displacement: A global public health challenge. *Infectious Disease Clinics of North America*. 1995;9(2):353-366.
- Toole M. Displaced persons and war. In: Levy, BS, Sidel, VW, editors. *War and Public Health*. Washington: American Public Health Association; 2000:197-212.
- Toole M, Waldman R. An analysis of mortality trends among refugee populations in Somalia, Sudan, and Thailand. *Nutrition*. 1988;3(8):10-11.
- Toole MJ, Nieburg P, Waldman RJ. The association between inadequate rations, undernutrition prevalence, and mortality in refugee camps: Case studies of refugee populations in Eastern Thailand, 1979-1980, and Eastern Sudan, 1984-1985. *Journal of Tropical Pediatrics*. 1988;34(5):218-224.
- Toole MJ, Waldman RJ. The public health aspects of complex emergencies and refugee situations. *Annual Review of Public Health*. 1997;18:283-312.
- UNHCR. 2008 global trends: Refugees, asylum-seekers, returnees, internally displaced and stateless persons. Geneva: UNHCR. 2009.
- United Nations. United Nations trends in total migrant stock: The 2008 revision. Geneva: UN. 2009.
- Villarejo D. The health of US hired farm workers. *Annual Review of Public Health*. 2003;24:175-193.
- Ville de Goyet C, Seaman J, Geijer U. The management of nutritional emergencies in large populations. Geneva: World Health Organization.1978.
- Ward C, Kennedy A. Coping with cross-cultural transition. *Journal of Cross-Cultural Psychology*. 2001;32(5):636-642.
- Ward CA, Bochner S, Furnham A. *The psychology of culture shock*. London: Routledge. 2001.
- Wong DFK, He X, Leung G, Lau Y, Chang Y. Mental health of migrant workers in China: prevalence and correlates. *Social Psychiatry and Psychiatric Epidemiology*. 2009;43:483-489.
- World Health Organization. International migration, health and human rights: Health and human rights publication series. Geneva: World Health Organization. 2003.
- Zwi AB, Alvarez-Castillo F. Forced migration, globalisation and public health: Getting the picture into focus. In: Allotey PA, editor. *The health of refugees: public health perspectives from crisis to settlement*. South Melbourne: Oxford University Press; 2003. p. 14-34.