

1. Introduction: migration, health and survival – international perspectives

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MIGRANT STUDIES IN INTERNATIONAL CONTEXT

The chapters in this volume are authored by leading migrant studies scholars from the United States, Canada and Australia, England and Wales, France, Germany, Belgium, Italy and Norway. The United States, Canada and Australia comprise the leading countries of immigration. England and Wales, France, Germany and Belgium have all experienced intense immigration after World War II; Italy and Norway are relatively new countries of immigration.

The United States has the longest experience with migrant studies, dating back to the early twentieth century (for example, Dublin and Baker, 1920; Calabresi, 1945). Interest in this area of research has grown substantially after World War II (for example, Gordon, 1957; Stamler et al., 1960; Haenszel, 1961; Jacobson, 1963; Stout et al., 1964; Krueger and Moriyama, 1967; Haenszel et al., 1968, 1972; Kmet, 1970; King and Haenszel, 1973; Marmot et al., 1975; Marmot and Syme, 1976; King and Locke, 1980; Locke and King, 1980; Kestenbaum, 1986; Markides, and Coreil, 1986; Rosenwaike and Hempstead, 1990; Rosenwaike, 1991; Singh and Yu, 1996; Abraido-Lanza et al., 1999; Hummer et al., 1999; Singh and Siahpush, 2001; Jasso et al., 2004; Palloni and Arias, 2004; Antecol and Bedard, 2006; Kelleher et al., 2006; Turra and Elo, 2008; Lariscy et al., 2016).

Early Canadian works tended to focus mainly on regional and socioeconomic disparities in mortality (for example, Basavarajappa and Lindsay, 1976; Wigle and Mao, 1980; Wilkins and Adams, 1983; Nagnur, 1986; McInnis, 2000). Before the early 1980s, only a handful of works had linked nativity and/or ethnicity explicitly to differential mortality (for example, Coy et al., 1968; Choi, 1968; Choi et al., 1971; Abu-Zeid et al., 1978; Roy, 1975). Since then, the literature has expanded considerably, exploring varied aspects of migrant health and mortality variations through the use of vital statistics data and more recently, newly available health surveys (for example, Trovato, 1985; Nair et al., 1990; Sharma et al.,

1990; Valkonen et al., 1992; Trovato and Clogg, 1992; Chan et al., 1996a; 1996b; Sheth et al., 1999; Ali, 2002; Perez, 2002; Beiser, 2005; DesMeules et al., 2005; McDonald and Kennedy, 2004; Newbold, 2009; Trovato and Odynak, 2011; Health Canada, 2010; Ng, 2011; Omariba et al., 2014; Ng et al., 2016; Vang et al., 2016).

Australian studies began to appear in the early 1970s, examining group variations in suicide and other external types of mortality, as well as chronic diseases such as cancer and cardiovascular disorders (for example, Stenhouse and McCall, 1970; Whitlock, 1971; Burwill et al., 1973). Since the 1980s, this research tradition focused on immigrant populations has intensified (for example, McMichael et al., 1980; Burwill et al., 1982; Young, 1986a, 1986b, 1987, 1991; Khlata, 1993; McMichael and Giles, 1988; Kliewer, 1992; Kliewer and Smith, 1995; Burwill, 1998; Kouris-Blazos, 2002; Hajat et al., 2010; Richardson et al., 2013; Anikeeva et al., 2012, 2015; Kennedy et al., 2015).

In Europe, late in the twentieth century important works appeared based on the experiences of France and the United Kingdom (for example, Brahimi, 1980; Marmot et al., 1983, 1984a, 1984b; Vallin, 1985). Over recent years the European literature beyond these countries has been expanding rapidly. To some extent, this is a reflection of these countries' growing experience with immigration brought on by the combined forces of globalization, expansion of the European Union, and periodic refugee crises in the regions surrounding Europe (for example, Geddes et al., 1993; Balzi et al., 1994; Courbage and Khlata, 1996; Wild and McKeigue, 1997; Sundquist and Johansson, 1997a, 1997b; Razum et al., 1998; Uitenbroek and Verhoeff, 2002; Harding, 2004; Stiribu et al., 2006; Regidor et al., 2011; Agyemang, de-Graft Aikins and Bhopal, 2012; Boulogne et al., 2012; Spallek et al., 2012; Hollander, 2013; Wallace and Kulu, 2013, 2014a, 2014b; Norredam et al., 2014; Moncho et al., 2015; Ikram et al., 2015; Vandenheede et al., 2015; Juárez and Revuelta-Eugercios, 2016; Verropoluou and Tsimbos, 2016; Wallace, 2016).

COMMON THEMES

Three consistent themes emerge from the studies. First, in one form or another, authors examine the idea that immigrant populations are selected for better health and longevity, and that by virtue of this property share a health and survival advantage over their native-born host populations. Much of the empirical evidence confirms the healthy migrant explanation, as first-generation immigrants tend to be healthier and have lower mortality risk from virtually all major causes of death in relation to

their host populations. Data errors do not explain away this differential. Second, some of the studies show that the migrant health advantage is not a permanent feature. With increased time in the host country, migrants experience a deterioration of their initial health advantage, and their health profile increasingly approximates that of the host society. Underlying this general phenomenon is the experience of negative acculturation – the tendency for immigrants to, on the one hand, relinquish traditions and, on the other, to incorporate the health behaviors of the host culture. Third, the health and mortality advantage in first-generation immigrants does not typically extend to the second generation.

PHYSICAL AND MENTAL HEALTH VARIATIONS

Bruce Newbold looks at physical and mental health variations among immigrants in Canada based on the Canadian Community Health Survey, the National Population Health Survey, and the Longitudinal Survey of Immigrants to Canada. With respect to changes in self-rated health status, Newbold's analysis indicates that while immigrants enjoy an initial health advantage early in their settlement experience, the advantage diminishes with time. Even though new immigrants are less likely to report having a chronic condition, the proportions with these types of health ailments rise notably with increased duration in Canada.

As indicated by Ng, Sanmartin, Tu and Manuel, while immigrants on the whole tend to have better health than the Canadian-born, variations by disease and by source country can be considerable. For instance, circulatory disease mortality risk among South Asians tends to be similar to that of the Canadian-born population, but higher than that of other immigrant or ethnic groups. Circulatory disease risk among the Chinese population is relatively low while among Canadians of South Asian descent there is an increased risk of hypertension and heart disease which rises with duration of residence in Canada. In their chapter, Ng and associates examine immigrant generations of United Kingdom, Chinese and other Asian origins with respect to all-cause and circulatory disease related hospitalization rates. Compared with third-generation and beyond descendants (that is, native-born Canadians), age-adjusted odds of all-cause hospitalization among first-generation recent immigrants (in Canada for less than ten years) were significantly lower than for longer-term immigrants (in Canada more than ten years), and also for second-generation descendants. Statistical controls for variations in socioeconomic status attenuated these differentials but the lower circulatory disease hospitalization risk among first- and second-generation immigrants of Chinese origin persisted while,

among those of South Asian descent, only the first generation showed a lowered risk but not the second generation.

Biddle and Weldeegzie analyze four waves of the Household Income and Labour Dynamics survey in Australia to examine whether self-assessed health of migrants deteriorates over time. They report that for the immigrant population as a whole longer duration is associated with worsening health, even after age, gender, education, employment, and income have been taken into account statistically. However, they find some differences across migrant groups. Immigrants from English-speaking countries have higher self-assessed health than native-born Australians, while those from 'other' countries tend to show either no difference or worse health relative to the Australian born.

Oppedal gives a comprehensive overview of research on the mental health of immigrant children, youths, and young adults in Norway. Inter-group as well as intra-group variations are examined. An important point raised by Oppedal is that in multicultural contexts such as Norway, concepts such as 'the immigrant health paradox' may not be very useful because such generalizing concepts can often lead to misperceptions of the real complexities associated with the psychosocial adjustment of migrant children and youths. It is argued that a deeper understanding of the mental health of immigrant youth must be based on a clear appreciation of the dynamic interactions between macro-level policies of the host country in conjunction with the unique socio-cultural orientations and practices of the immigrant groups.

Wilkinson and Ponka turn their attention to the Canadian literature concerning the mental health of immigrants and refugees, approaching their overview from two differing perspectives – one from a sociologist (Wilkinson) and the other from a practicing physician (Ponka). They challenge many misperceptions about mental health and newcomers, including the idea that the experience of migration, particularly among refugees, is somehow psychologically and irreversibly damaging. After summarizing the state of knowledge concerning the mental health outcomes of immigrant and refugee adults, children and youth, they explore a number of interrelated dimensions, including: the complexities associated with identifying and tracking over time the mental health of refugees from the point of entry throughout their post-settlement experience; the necessity for medical practitioners to treat refugees as a special case given their pre-migration experience with trauma and for many, their post-settlement experience with post-traumatic stress disorder (PTSD); and challenges associated with ensuring proper access for refugees to the health-care system and needed systemic accommodations to better treat refugee mental health concerns in Canada.

HEALTH, MORTALITY AND SURVIVAL VARIATIONS

Trovato investigates differential mortality between immigrant and native-born populations in Canada during the period 2010 to 2012, looking at causes of death encompassing chronic and external types. The immigrant population shows lower death rates on virtually all causes examined. Acculturation (proxied by years in Canada since immigration) was found to have an eroding effect on the immigrant mortality advantage across most causes examined. The protective effect of health selection on survival probabilities is estimated to persist for 25 years or more for certain diseases, particularly ischemic heart disease in males, whereas for diseases such as diabetes the protective effect of selection lasts only between five and ten years for female migrants. Trovato's findings are consistent with the proposition that the passage of time in the host country entails varying degrees of health erosion for immigrants, and that the mortality advantage afforded by selection dissipates with time, though at varying degrees of intensity depending on the type of disease.

For the United States, Singh and Liu look at mortality and life expectancy trends and differentials among immigrant and US-born populations based on death certificate and population data from the National Vital Statistics System (NVSS) and decennial censuses, as well as prospective data from the National Longitudinal Mortality Study (NLMS). These authors also discuss differentials in health status, chronic disease morbidity, disability, injuries, mental health, health-risk behaviors, such as obesity, physical inactivity, diet, smoking, alcohol use, and hypertension, health-care access and use. The similarity of the US findings regarding mortality differentials with those reported for Canada by Trovato is striking, as in both countries immigrants share a substantial survival advantage over the native born. As argued by Singh and Liu, the migrant mortality advantage is due to a combination of factors, ranging from health selection to cultural practices that promote health and survival. These authors also recognize that the extent of negative assimilation on migrant health and survival can vary across nationality groups.

In Australia, Anikeeva and Bi study differential patterns of mortality in migrants for the most common cancers in relation to the role of diet, lifestyle factors and acculturation. In general, immigrants have lower mortality rates than do Australians. Greeks and Italians in particular enjoy a significant cancer mortality advantage. This is attributed to the predominantly Mediterranean diet adopted by Greeks and Italians, and to salutogenic effects of aggregative affiliation, as these groups are mostly clustered in the larger cities where a supportive environment exists within the ethnic community that reinforces maintenance of traditions, and in

particular, traditional food preparation and consumption. On the other hand, for some cancers mortality rates are higher in immigrants. Upon arrival, East and South East Asian migrants have an approximately thirty-fold higher age-adjusted risk of dying from nasopharyngeal cancer compared with the Australian-born, which reduces to nine-fold after 30 years in Australia. Migrants from the United Kingdom, the former Yugoslavia, Greece and Italy have higher age-adjusted mortality rates from cancer of the stomach and pancreas. However, this higher death rate among the migrants tends to decrease with increasing duration of residence in Australia. It is suggested that such group differentials and patterns of cancer mortality reflect group variability in dietary and lifestyle habits linked to differential retention of Old World traditions.

Wallace examines differential mortality among migrants and their descendants living in England and Wales. It is confirmed that the healthy migrant effect cannot be explained away by data errors, nor can the 'salmon bias' (return selectivity) account for the observed migrant mortality advantage. The low mortality among migrants is mainly a function of low mortality from cancer, and in some groups also reduced death rates from cardiovascular disease. The descendants of migrants were not observed to share a mortality advantage. A succinct overview of the accelerated health transition thesis is given by Wallace. This thesis posits a mortality advantage for migrants, most especially from developing countries, as a function of reduced mortality from infectious diseases and perinatal and maternal mortality very soon after arrival to the new country. This accelerated health transition occurs because upon arrival, the newcomers benefit from a more sanitary environment and access to better health care, thereby permitting a rapid reduction in mortality from infectious diseases. However, with increased duration in the new country, the migrants are progressively exposed to western lifestyles and related risk factors for chronic diseases, and consequently, after a lag period they experience increased death rates from chronic diseases.

The evolution of migrant studies in France is the subject of Khlal and Guillot's chapter. It is observed that there has been a shift in research orientation in France, from an early period in the 1980s when the focus was mostly on cancer epidemiology concerning the foreign born, to a more recent period since 2000 focused largely on the social determinants of health and mortality inequalities. It is noted that the French literature agrees in many respects with that based on other immigrant-receiving western countries: younger migrants in the pre-labor force ages tend to show relatively high death rates, and those in the prime labor force ages enjoy a notably low mortality risk. Female migrants from sub-Saharan Africa, particularly Morocco, have unusually high rates of maternal mortality. This raises the interesting juxtaposition that within the larger

immigrant population – usually found to be in better health than the native born – there are vulnerable subgroups in poor health. In fact, according to Khlal and Guillot, in France, the ‘healthy migrant effect’ is visible in only a subset of studies, and quite a number of other studies are more in line with a representation of migrants as ‘vulnerable populations’.

According to Brzoska and Razum, one-fifth of the population of Germany are individuals with a migration background (16.4 million out of 80.9 million total population), that is, persons who may have immigrated to Germany from another country, or persons that are direct descendants of immigrants. Aside from having a lower socioeconomic status, immigrants in Germany tend to also encounter barriers in health care that limit their access to health services and that may also affect health-care quality and outcomes. It is indicated that based on the available evidence it is difficult to say definitively whether migrants have a higher or lower mortality than non-migrants, even though age standardized death rates do for the most part suggest an immigrant mortality advantage. Immigrants appear to have a higher incidence of certain infectious diseases and a higher prevalence of some chronic conditions. This is attributed to unfavorable social determinants in the immigrant population in conjunction with access barriers to, and a limited effectiveness of, health services to migrants.

As reported by Caselli, Loi and Strozza, since the late 1970s Italy has become a country of immigration after being one of the main European countries of emigration for more than a century. Currently, foreign residents in Italy are estimated to number more than 5 million. If non-residents are taken into account the total arrives at almost 6 million, or about 10 percent of the total population. The immigrants are almost all citizens of developing countries. Many others are from Central and Eastern Europe, with a significant presence of those from countries that have joined the European Union (EU) during the past decade. Notwithstanding these trends, Caselli and colleagues indicate that there is limited knowledge of the health conditions and mortality of immigrants and refugees in Italy. These authors rely on a variety of data sources, including regional-based surveys and studies, administrative records and hospital data to form a picture of the health condition of immigrants in Italy. Looking at differences in hospitalization rates, it is seen that for the foreign population the rates are lower compared with Italians, thus suggesting an immigrant health advantage, though over time the migrant advantage reduces, changing toward convergence with the host population. Specific to foreign women, there appear to be problems associated with pregnancy and perinatal complications, the most disadvantaged group being mothers from West and sub-Saharan Africa. It is suggested that in future research it would be important to consider the unique experiences of the different nationalities in Italy in order to better

understand how culture and work histories interact to determine differential health and mortality risk.

The case of Belgium is investigated by Deboosere and Vandenheede. Based on their findings these authors underscore the need to move beyond mono-causal explanations of immigrant group variations in mortality rates. Notwithstanding a possible healthy migrant effect, it is argued that in reality many factors contribute over the life course to differences in life expectancy, and these factors can have negative and positive effects on mortality risk. For instance, the fact that the labor migration to Belgium was composed of healthy men has certainly contributed to lower mortality in adult migrant populations in the past and also currently. However, harsh working conditions for immigrants had negative effects on health which only became evident several decades after the time of arrival, as indicated, for example, by the higher death rates from respiratory diseases among older immigrant men. The negative impact of bad socioeconomic conditions on health can be compensated by better dietary habits, but again, some aspects of the diet can also have a negative impact on mortality risk, as illustrated by the higher stomach cancer mortality among several migrant groups in Belgium. Finally, cultural background (and religion as part of the culture of origin) plays an obvious role in containing the negative impact of some causes, as witnessed in connection with the low mortality due to alcohol-related diseases and the very low suicide figures.

Given the variety of experiences observed in this volume and in the broader migrant studies literature, an all-encompassing theory of immigrant health and mortality may be difficult, if not impossible. In the final chapter of this volume, Trovato proposes a heuristic framework to help organize empirical observations concerning immigrant mortality variations based largely on established features of the migrant studies literature.

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