# **International migration and health**

A paper prepared for the Policy Analysis and Research Programme of the Global Commission on International Migration

by Manuel Carballo and Mourtala Mboup International Centre for Migration and Health

mcarballo@icmh.ch

September 2005

The analysis provided in this paper is that of the author, and does not represent the views of the Global Commission on International Migration.

#### Introduction

The 20th century saw a number of fundamental changes in the ways in which countries inter-relate, in the demands and pressures on people to move between countries, and in the patterns of health associated with those new spatial and social interactions. In many ways the world became a smaller place to live in and as it did, socio-political situations and health conditions in one country or region assumed a greater capacity than ever before to influence those in other parts of the world. In some areas of the world population pressures and growing relative poverty continued to translate, as they have always done, into the need for people to seek alternative life styles elsewhere and move from poor to what are perceived to be economically better off countries. Meanwhile, an increasingly proficient global communication system permitted the rapid and cross-border diffusion of ideas about life in other countries, helped to generate a global culture and new expectations. At the same time, major improvements in international transportation made human mobility easier and faster than ever before, facilitating the movement of people across different ecological as well as socio-political zones.

This paper takes into account the fact that as people begin to move in greater numbers, more rapidly and across wider ecological spaces, the opportunities for migration of all kinds to affect health in increasingly complex ways will become more evident. As it does, the biomedical and bio-psychosocial dimensions of migration will possibly pose new and more difficult challenges to those who move, those they leave behind and those who host them in receiving societies. The paper also considers some of the factors involved in this emerging equation, including the social and health conditions that help to determine the character of migration and post-migration settlement. It looks at some of the main policy dimensions and implications associated with the migration-health nexus and while it does not attempt to address internal or forced migration, it recognises that both these types of movement have grown massively over the course of the last half century, and in their own way are also creating new health challenges.

### **Data limitations**

Unfortunately any consideration of the relationship between migration and health tends to be limited by the relative paucity of information that exists in some countries on this issue. Few EU countries, for example, systematically or routinely gather information on the health of migrants, and current health recording systems are not designed to identify people by migration status. In some cases the lack of precision as to who is a migrant as opposed to a descendent of migrants makes the task even more difficult, especially where people are defined by region as opposed to country of origin. In other cases, people are defined more by ethnic origin than their length of stay, and refer to children of migrants and migrants as one group irrespective of whether they are second generation and born in the country they reside in. The growing phenomenon of unofficial, and hence unrecorded migration poses another obstacle to understanding the real pace and scope of contemporary movement and all the ways in which population movement affects health and health care. Yet unofficial migration may be even more important a process than official migration in terms of how it affects health.

# Changing nature of the world, migration and health

Migration has always been a characteristic of human society, and one that has probably always been pregnant with health challenges. Today it remains the main way in which people escape climatic, social, political, agricultural and economic threats and seek alternative life options elsewhere. In recent history it was the mechanism that permitted the "new world" to become populated and economically viable. Today its relevance to economic development and demographic revitalisation, while still valid and in some cases more so than before, is becoming more controversial and surrounded by political and social attitudes that make it a more precarious process than it ever was.

The speed of contemporary migration, the numbers of people involved, and the fact that people are often moving from parts of the world with very distinct health conditions and disease profiles inevitably carries with it implications for the health and health care of those who move and those that receive them. Those implications are often coloured by complications of culture, language and how people from different parts of the world perceive health and health protection. The fact that much of modern-day migration is occurring in a socio-political context in which migration is becoming less appreciated by receiving societies also has implications for the health of those who move and those who receive them. The reluctance of many states to ratify the Convention on the Rights of Migrants and the ongoing exclusion and discrimination of migrants in law suggests that many national and international policies have not yet been able to address the challenge of migration in a comprehensive fashion that takes into account the ethical and public health issues involved (Markwalder and Carballo 2005).

# **Types of migration**

Migration takes many forms, including so-called forced and voluntary movement. In the 20<sup>th</sup> century economically motivated migration (voluntary) predominated and in response to the gradual hardening of policies to migration, unofficial but voluntary and economically inspired movement also became more evident. While precise figures for the number of people moving for economic reasons remain elusive, it is estimated that over 200 million people move every year to find work and a better life. Of these at least 30 million are so-called unofficial.

Economically motivated migration assumes other additional permutations too. Some people move with the intention of settling and beginning new lives. Others move to countries with the intention of staying long enough to earn sufficient money before returning home. Some move with contractual agreements and hence legal coverage for the period of employment. Others move in a more unregistered way, but find work and stay for periods of indeterminate duration. Each of these forms of economically motivated migration has the capacity to present its own health challenges. Some of those challenges are related to where people come from, where they go and how they move. Many of the health challenges are also a function of national policies and social attitudes to migrants and their living conditions.

While not the subject of this paper, it would be irresponsible not to acknowledge that the number of people forced to move for reasons of conflict and political repression also grew over the course of the last century and has continued to take diverse forms. People continued flee across borders and become refugees with UN protection, while at much the same time millions of others were forced to flee from their homes but remain within their own borders,

often without any international or national protection. The health and health care implications of forced migration are always severe and far-reaching.

Over the course of the last fifty years international tourism also became an increasingly dominant form of movement across borders. The World Tourist Organisation estimates that by the year 2010 more than 10 billion people will be travelling for purposes of leisure, and a large part of this movement will involve long-haul flights across different ecological and health zones. In general health policies with regard to tourism have been more relaxed than with other types of migration, but the health implications of tourist travel should not be discounted, for they are often involve considerable morbidity.

The latter part of the 20<sup>th</sup> century also saw international education become a source of organised migration and a major industry that in the USA alone amounts to more than \$12 billion a year. In Europe and Australia it is also becoming an important source of revenue and involving inter-cultural travel that inevitably brings with it implications for health for students who move into new and often difficult psychosocial conditions.

# Migration policies and health

The movement of people across borders has always generated concern on the part of receiving countries and a variety of procedures have evolved over the years to respond to migration and migrants. Policies defining who has the right to enter (and who in some cases must leave) countries, how long they can stay, under what circumstances and with what legal and hence health care status, have been part of the response. On the whole policies have leaned towards the restrictive rather than the permissive, and even more so in the case of policies that are now emerging in both developed and developing countries. They are making (in many cases intentionally) migration more complicated, difficult and unattractive. In doing so, however, they may be generating social and economic environments that are detrimental to the health and welfare of migrants.

Migration has always elicited a felt need by receiving societies to screen newcomers for disease, and tuberculosis has traditionally been the disease that has been looked for. Approaches to TB screening of migrants nevertheless vary. Austria, Hungary, Italy and Spain do not have specific screening policies (Euro Surveillance 2004), but in Denmark refugees arriving from countries with a high prevalence of tuberculosis are routinely screened and those who need it are provided with six-month courses of treatment. Problems of migrant "loss to follow-up" are not unusual, however, and the incidence of TB in Denmark has increased steadily over the past 4-5 years. In England and Wales, immigrants coming from countries where the incidence of tuberculosis is higher than 40 cases per 100,000 per year are also "eligible to be screened" but there are indications that this is not a systematically applied rule. In the Netherlands, the policy is to exempt immigrants from developed countries such as those in the EU, Norway, USA, Canada, Australia, New Zealand, Japan and Israel from TB screening. People arriving from all other countries are eligible to be screened if they are applying for residency permits of over three months. Where it is indicated they are also provided with treatment (Prinsze, 1997). Norway screens all migrants from countries where TB is considered to be a high prevalence problem and asylum seekers are subject to more intensive screening than other types of migrants. This is also the case in Germany, the Netherlands, France and Belgium.

The health of migrants, however, is also a function of the policies and practices that surround migration. Policies with respect to the access of migrants to health care and social services have traditionally varied between countries. In countries with a strong tradition of public health and social solidarity, access to vital health care has typically been open to all, including legal and clandestine migrants. In other countries with more privatised health care systems, health insurance requirements have often made it impossible for migrants, both legal and clandestine, to easily have access to health care services. Temporary seasonal workers and clandestine migrants (whose number is increasing, and in Europe alone is conservatively estimated to be around 500,000 per year) have been especially affected by policies such as these.

# Migration and health dynamics

The interaction between health and migration is a complex and dynamic one that is influenced by the socio-economic and cultural background of migrants, their previous health history, and the nature and quality of the health care situation they had access to prior to moving. It is also influenced by the circumstances surrounding the migration itself and then the social and health characteristics of re-settlement (Wolffers, Verghis, Marin, 2003). The type of work people are expected to perform once they arrive, the physical and housing conditions that is available to them, the access (perceived or real) they have to health and social services (Carballo et all 2004), and the extent to which they are able to remain in contact with family are important determinants of health and well being. Language skills and familiarity with the culture of the host community also play an important role in determining health outcomes. In Denmark, the risk of delayed and poor obstetrical and gynaecological care for women migrants and refugees has been shown to be related to language problems and poor communication with healthcare staff (Jeppesen, 1993). Elsewhere access to, and use of, health care services has been shown to be influenced by the trans-cultural skills (or lack of them) of health care staff and the availability of interpretation in clinics (Darj and Lindmark, 2002, McGuire and Georges, 2003, Carballo et al 2004).

# Migration and psychosocial health and well being

The process of migration introduces threats to psychosocial health and well being in a number of ways. The decision to move, for example, is often replete with fear of the unknown, anxiety about those being left behind, and a sense of impending loss. Some observers have termed it a type of cultural death (Tizon 1983) that seriously affects the well being of migrants and their capacity to settle elsewhere, especially where there are additional obstacles of language, culture as well as policies and practices designed to make migration unattractive. In the case of clandestine migrants the process of moving is even more pregnant with problems. They are often required to pay large sums of money to be helped across borders, and from the very onset they are financially as well as economically burdened. Their illegality also means they live in constant fear and can be easily abused by employers and others. For women in particular, the need to pay with sexual favours is not uncommon, and rape and systematic sexual exploitation are frequent features.

The psychosocial well-being of migrants is also influenced by the growing tendency for partners not to be able to move together and with their children. Labour demands and labour migration regulations increasingly favour either men or women, but not both at the same time

and not with their families. As a result it is not uncommon for one or both parents to leave home but to do so separately and to different countries, leaving children behind with grandparents or other relatives. The implications for everyone concerned, especially children are far-reaching and there is growing evidence that even when family reunification occurs it is rarely easy for the partners or the children to be reconciled. In the Netherlands, de Jong (1994) indicated that even beneficiaries of family re-unification schemes designed to address this problem experienced serious family problems. Partners often found they had become too distant. Some had developed new relationships while separated; others had idealised their families and their family ties in ways that were difficult to match with the realities once reunification became possible. Divorce rates for migrant populations tend to be higher than for host populations; in Australia they are twice as high (Khoo and Zhao 2001). Women are significant "losers" when this occurs, particularly if their job opportunities are limited and where their social status in the local immigrant community is "tied" to marriage and family. Moreover when divorce occurs in migrant couples the emotional impact on children tends to be more severe than it is in the case of non-migrants (Svedin et al., 1994, Suarez-Orosco, Todorova, Louie, 2002)).

Many studies have reported that having a sense of coherence is an important factor in a migrant's capacity to cope with stress and improve quality of life during the early adaptation (Antonovsyk, 1987; Hintermair, 2004), but even when migrants do find work, job security is often lacking and employment can mean having to accept work that is poorly paid, high-risk and not consistent with their qualifications (Carballo et al 2004). This is certainly the case with unofficial migrants but it is by no means limited to them, and when it occurs, the feelings of relative deprivation and loss of self-esteem that follow can be very psychologically erosive (Spitzer 2003).

Anxiety and homesickness are frequent problems that easily become chronic when not treated or resolved, and can present serious implications for overall psychosocial well being, including depression and psychosomatic functional disorders such as stress-related ulcers, migraines and disabling back pain (Carballo, Divino and Zeric 1998). Together with the challenge of resettling in new societies and cultures and doing so under difficult conditions, these problems often lead to a heavy reliance on alcohol and tobacco, and in the case of males who move alone, recourse to sex workers. In the case of clandestine migrants the constant fear of expulsion and the feeling that they are not wanted or appreciated, serves to exacerbate many of these problems even further and produce high levels of chronic anxiety and sense of isolation (Carballo et al 2004).

For close family and relatives left behind, the departure of migrants to seek a living elsewhere is also fraught with psychosocial difficulties, especially when the ones who move are heads of households leaving behind them spouses, partners, children and elderly relatives for whom they represented protection and psychosocial as well as economic security. And even if and when remittances are sent back by migrants and become a mainstay of the families, the physical and emotional distance that separates migrants from their loved ones can be psychologically erosive for everyone involved.

The relationship between psychosocial well being and physical health is a close one and in the context of migration is often confounded by cultural differences in the ways people think of health and health care. It is also made more complex by the tendency for some people from some cultures to somatisize psychosocial problems and refer to physical symptoms which

although they have no clear diagnosis are nevertheless debilitating and costly in terms of work days lost.

During the initial period of settlement Moroccan immigrants in Belgium were five times more likely to develop peptic ulcers than Belgian nationals, in the Netherlands the prevalence of ulcers among migrants from the Antillies, Morocco, Turkey and Surinam is up to 10 times higher than among other people, and they are 5-10 times more likely to suffer from chronic tension headaches than their Dutch counterparts (de Jong, 1994). Stress related ulcers are also a frequent cause of morbidity among migrants in Germany (Huismann et. al. 1997), and in Switzerland the incidence of stress related headache is high among migrants (Bischoff, Loutan and Burgi, 1997; Carballo et al 2004).

High rates of suicide and attempted suicide among migrants in EU countries have been linked to their high rates of depression. In the Netherlands where unemployment rates among migrants in the early 1990's were high, the suicide rate among children of migrants was also higher than in the general population (de Jong, 1994). In Rotterdam children of Turkish immigrants were reported to be five times as likely as Dutch children to commit suicide, and Moroccan young people were three times more likely to do so. In the United Kingdom, suicide rates for women from the Indian sub-continent tend to be higher than for men, especially among girls and women aged 15-34 (Karmi, 1995). The data also suggest that second generation migrants may be at greater risk of suicide than their first generation parents (Hjern and Hallebeck 2002).

Psychosocial problems among children of migrants may reflect a range of familial as well as social environmental circumstances, including problems of culture conflict, job insecurity, regrets about leaving home, family disruption and poor expectations for the future. The fact that adult migrants are often forced to take low-status and difficult jobs also means their work schedules often keep them away from home and their children during non-school hours. Language differences between migrant parents and their children also have the potential to be problematic. Children appear to learn local languages more quickly and efficiently than adults, and this often creates a perceived gap between them and their parents. The latter fear that their children are "moving away" and adopting new values and patterns of behaviour, as well as the dominant language. The intra-familial stress and parent-child conflicts that emerge in situations such as these may be precursors to low self-esteem, feelings of guilt and psychosocial morbidity among the children of migrants (Carballo et al 2004).

# Migration and physical health

As all people do, migrants carry with them the health "footprints" of the countries and social environments they come from, and since in general economically motivated migrants tend to move from poorer to economically more developed countries, a proportion of them can be expected to carry health profiles associated with poverty. Not surprisingly many parts of Western Europe have observed increases in the number of reported cases of TB in recent years and these increases have in part reflected the influx of people from poor countries. In Germany migrants are estimated to be up to 5.2 times more likely to be diagnosed with TB than non-migrants (Huismann et al. 1997, German Central Committee to Fight TB 2002) and a similar picture has emerged in France (Gliber 1997), Austria (Matuschek 1997), and Spain (Jansá, 1995). A study conducted over a seven year period in the UK found that individuals infected with TB were 7.4 times more likely to have received visitors from abroad and were 4

times more likely to have been themselves born outside the UK (Tockue et al. 2001). In Belgium the incidence of TB among asylum seekers has been reported to be 30 times higher than among the local population (Brande et al. 1997) and in France between 1992 and 1997 foreigners accounted for over 55% of all multi-drug resistant TB (Robert et al. 2003).

Although some of the TB infection that is being reported may well be "imported", the fact is that because migrants tend to move (or be directed) towards sections of towns where housing is cheap, where overcrowding is common and where the living (and working) conditions are poor, the spread of respiratory, including TB is also more likely to occur. In the UK, ethnic minorities are 5 times more likely to live in overcrowded housing than English "nationals" and are 3 times less likely to own their own homes (Atri et al. 1996). Migrants are also proportionately over-represented in the EU homeless population and comprise as much as 20% of all homeless people. This is particularly evident in Italy and Greece, but only slightly more so than in other parts of the EU. In Copenhagen 33% of the homeless are migrants, and this in a country where only 4% of the total population is foreign-born (Feantsa 2004). Clandestine migrants, in particular, are likely to face major housing problems and a recent survey in Geneva found serious overcrowding to be common.

The health and social living conditions of migrants have elicited concern from both a human rights and from a public health point of view (Bericht der Beauftragten der Bundesregierung für die Belange der Ausländer, 1995; Gliber 1997; de Jong and Wesenbeek 1997). In Spain a study of migrant agricultural workers in Almeria in southern Spain found that 85% of migrant workers lived in makeshift accommodation with little running water, poor sanitation and no heating (Gaspar, 1995). Similarly a survey of living conditions of migrants from Cape Verde in Lisbon (Almeida & Thomas, 1996) found a third of their makeshift dwellings had no piped water and 26% of them had no organized waste (sewage) disposal. In Italy, substandard housing and poor access to public health services has been highlighted by Italian health authorities as potential factors for chronic and possibly drug-resistant TB (Carchedi & Picciolini, 1995).

Few diseases have provoked the concern that has surrounded HIV/AIDS, including the fear that people from parts of the world with high HIV infection rates are likely to bring the disease with them. Indeed between 1997 and 2001 66% of all heterosexually transmitted HIV infections in the EU were diagnosed in people from countries with high HIV prevalence (Eurosurveillance Weekly 2002) and in Germany and Sweden, the proportion of non-nationals diagnosed with HIV/AIDS has been rising, and been linked to migrants arriving from countries with a high prevalence of the disease (Weilandt et al., 1995; Janson, Svensson & Ekblad, 1997). Conversely migrants coming from countries with a low prevalence of HIV/AIDS do not appear to be at any greater risk (and may be at less risk) than nationals in the host country.

Bacterial sexually transmitted infections (STIs), which in themselves are dangerous, are also known to increase vulnerability to HIV because they can enhance the efficiency of transmission from one person to another. In Belgium STI morbidity is reported to be much higher among unmarried male migrants than it is among Belgium males (De Muynck, 1997) and in Sweden, where there has been a measurable decrease in STI incidence in the population as a whole, the contribution from foreign-born cases appears to be increasing (Janson, Svensson & Ekblad, 1997). Laws preventing the migration of partners may have much to do with these trends because they create concentrations of male migrants and small reservoirs of sex workers who service them.

#### Non-communicable diseases

Non-communicable diseases constitute a fast growing public health problem in most parts of the world. They account for over a half of all deaths that occur each year, and from the perspective of care and treatment they constitute a heavy technological and economic burden on health care systems and families. Non-communicable diseases are in general linked to lifestyle factors such as diet, stress and the coping mechanisms that people use to deal with it.

Of all non-communicable diseases one of the most significant in terms of its impact on individual, family and community life is cardiovascular disease (CVD). Highly disabling and costly-to-manage, CVD is a leading cause of mortality and burden for families. The migrant contribution to the CVD load reflects the role of factors such as ethnic pre-disposition, diet, lifestyle and stress. In the UK, Asian men appear to be more prone to coronary heart disease than others (Balajaran & Raleigh, 1992; McKeigue & Sevak, 1994, BMJ 2003), and both men and women of South Asian origin have 30-40% higher coronary heart disease mortality rates than others (Balajaran, 1991). South Asians are also significantly more likely to be admitted to hospital for heart failure and are significantly less likely to survive myocardial infarction than others (Wilkinson et al. 1996; Blackledge et al. 2003). Similar findings have been reported for Asian immigrants in Canada, where the risk of myocardial infarction among people of Asian origin has been 2-5 times higher than among non-Asian immigrants and native-born Canadians (Harrison, 1994). Data from the UK also indicate that migrants from the Caribbean have an incidence of stroke that is twice that of the "white" population (Stewart 1999). In Sweden high rates of obesity and coronary heart disease have ben reported among Finnish migrants and linked to dietary habits and alcohol consumption (Järhult et al., 1992).

### **Inherited diseases**

The movement of people from different regions of the world can also mean a movement of genetic diseases. Thus sickle-cell anaemia and thalassemia have become more apparent as a result of migration from Africa, the Caribbean and Mediterranean region where these diseases are more common. Sickle-cell anaemia is now relatively common in many EU countries and is estimated to affect 6,000 adults and between 75-300 babies annually in the UK (Karmi, 1995). High prevalence of sickle-cell anemia has also been observed among migrants in Portugal (Carrerio et al. 1996). Thalassemia, which is primarily an inherited blood disease of Mediterranean origin, is found in the UK among ethnic minorities of Middle Eastern and Cypriot origin and there is evidence that it may also be common among people from Pakistan, China and Bangladesh. The implications of thalassemia and sickle-cell anaemia for iron deficiency have been raised together with the need for new approaches to migrant health (de Jong & Wesenbeek, 1997), but in general, because they call for diagnostic and special counselling services that are not always available.

# Diseases of occupation

In general migrants tend to orientate to lower skilled, lower social status jobs that with time have become unattractive to local people. Some of these jobs, such as in mining, construction, heavy manufacturing and agriculture, also involve risks for health. Occupational accidents are approximately two times higher among immigrant workers in Europe (Bollini & Siem, 1995), and in the agriculture sector chronic and unprotected

exposure to pesticides and other chemical products is associated with high incidences of depression, headaches, neurological disorders and in the case of women, miscarriage. In Spain muscular diseases, dehydration and heart complaints among migrant workers have been linked to the long hours spent in greenhouses, (Parron, 1992; Castello, 1992). Reports from other parts of the world have frequently identified higher rates of musculo-skeletal injuries among adult migrants (Bernhardt & Langley, 1993) and children (Wilk, 1993) working in agricultural settings. High frequencies of parasitic infections have also been observed among agricultural migrant workers (Camargo et al., 1994) and some types of construction work (Pongpaew et al., 1993). Higher rates of respiratory problems (Ciesielski et al., 1994) including TB (MMWR, 1992), neoplasms (Zahm & Blair, 1993) linked to pesticides, chemical products and other toxic materials found around work stations staffed by migrant workers (Carballo & Siem, 1996; Mobed et al., 1992; Merler et al., 1996) have also been noted. Similar findings have been reported among sugarcane workers in KwaZulu-Natal, South Africa, in which half of the workers surveyed were seasonal or "casual" workers, and where 79 percent of the migrant workers reported eye problems, and 78 and 88 percent of them reported upper and lower respiratory problems (Robins, Salie, Gwagwa, 1998).

In Germany, industrial accidents tend to be high among migrants, especially those working in industries with poor safety measures (Huismann et al., 1997). Migrant workers are also disproportionately represented in rates of industrial accidents in France where over 30% of industrial accidents resulting in permanent disabilities involve non-French workers (Gliber, 1997). In Belgium Moroccan and Turkish workers in heavy industry have a higher incidence of industrial accidents than nationals, and in the past there have been indications that these are followed by secondary psychological problems that are difficult to treat and a source of disability (Peeters et al., 1982). A number of studies in Switzerland and Sweden have similarly pointed to higher rates of occupational injuries among migrant workers and to their relatively longer rehabilitation when they are injured (Egger et al., 1990; Molinaro 1994; Carballo & Siem, 1996) and (Isacsson et al., 1992).

# Other accidents

The long hours migrants tend to work outside the home also have implications for the quality of care of children. A study of Turkish migrants in Germany found that 50% of all children aged 7-14 cared for themselves and that more than 20% of pre-school age children were being cared for by siblings who were in many cases little older than the pre-schoolers (Carballo, Divino and Zeric, 1998). Immigrants may also be more vulnerable to other types of accidents and data from Germany indicate that non-German children in the 5-9 year old age bracket are more vulnerable to traffic and other injuries than German children of the same age (Korporal & Geiger, 1990). In the Netherlands children of Moroccan and Turkish origin also appear to be more at risk of domestic accidents including poisonings and burns, as well as traffic accidents (de Jong & Wesenbeek, 1997). The poor housing migrants often end up in is often a major risk factor for accidental injuries, and in France is associated with relatively high incidences of lead poisoning among young children who spend a lot of time in apartments and tend to pick and nibble paint splinters.

# Reproductive health

In many EU countries, pregnancy-related morbidity is higher among migrants than local women. In the UK babies of Asian mothers tend to have lower birth-weights than other ethnic groups and their risk of perinatal and post-neonatal mortality also tends to be higher. Infants born of women from the Caribbean also have higher than average post-neonatal mortality rates. In Belgium high perinatal and infant mortality rates have been reported for babies of migrant women, especially those from Morocco and Turkey. Similar problems have been reported in Germany, again among Turkish migrants. High rates of pregnancy-related problems have also been reported among migrant groups in Spain where pre-maturity, low birth-weight, and complications of delivery are a major problem, especially among women coming from sub-Saharan Africa and Central and South America. Among African migrants the incidence of premature births is 9.8% as compared to 4.6% for Spanish women and the rate of low-birth weight babies is approximately 11.5% as compared to 5.5%. African women also tend to have higher rates of miscarriage while over 8% of babies born to women from Central and South America are under-weight, and 6.3% prematurely born.

In Spain the problem of unwanted pregnancy and poor knowledge of contraception and family planning services continues to be a major challenge. Requests for induced abortion by immigrant women in Barcelona tend to be twice as high as among Spanish women, and in Geneva a recent ICMH survey found a similar situation among clandestine migrants where the rate of abortion was up to three times higher than among nationals of comparable age (Carballo et al 2004). In Norway abortion rates among migrant women are significantly higher than among Norwegian women (Ackerhans 2003).

#### International tourist movement and health

Of all the newly emerging patterns of international migration, the movement of tourists has become one of the largest and most striking in terms of its growth. The World Tourist Organisation reports that during the latter decade of the  $20^{th}$  century international tourism made up for 30% of global service industries and estimated that international "arrivals" will exceed 1.56 billion by the year 2020. Of these 0.4 billion will involve long-haul travel, including across ecological zones. In addition to the growing number of people travelling for tourism, the scope and nature of tourism has itself changed and brought major implications for health and health care. An estimated 14 million people now travel from industrialized countries to tropical parts of Africa, Asia, Latin America, the Pacific Islands and to remote areas of Eastern Europe, from where a significant proportion return with diseases that require treatment. While diarrhoea is the most common problem, with an incidence rate of 25%-90% in the first weeks depending on the location of travel, malaria has also become a common problem that presents serious diagnostic, treatment and economic cost challenges to the countries tourists return to.

In the absence of protection, people visiting areas with a prevalence of hepatitis A are estimated to develop symptomatic hepatitis A at the rate of 3-6 cases per thousand people per month of stay, and in the case of people exposed to especially poor hygienic conditions the rate can increase to 20 per thousand per month (Schwanig 1997). Sexually transmitted infections, including hepatitis B, are also a growing problem in the context of tourism, with serious implications for HIV/AIDS. In Switzerland tourism-related sexually transmitted infections are growing in importance, and as many as 25% of STI recorded patients are

reported to had been infected while travelling outside Switzerland (Bischoff, Loutan & Burgi, 1997).

# Migration of health professionals

The latter part of the 20<sup>th</sup> century saw an acceleration in the movement of health professionals from developing to developed countries. This not an entirely new phenomenon, although its pace and country of origin character is new and potentially problematic. The movement of health professionals between developed countries, and indeed between developing countries, is a well-established phenomenon. For example, the movement of health professionals from the UK to the USA and Canada is a process that has been underway for many years and there has been a problematic increase in the migration of nursing staff from the UK to countries such as Australia, New Zealand and the United States. According to the Nursing and Midwifery Council, the UK lost over 4,000 nurses to these countries between April 2002 and March 2003 (Duffin, 2004).

Although not an entirely new phenomenon it is the pace and increasingly structured nature of health care personnel migration that is provoking concern, and especially so with respect to its potential impact on health care systems and health development in the sending countries, many of which are poorly served from a health care perspective. In sub-Saharan Africa, from where many physicians are moving, the ratio of physicians to "beneficiary" population is less than 13:100,000 (Hagopian et al., 2004).

A number of factors appear to be contributing to this migration, including the fact that (a) many developed countries have failed to plan for, and/or invest sufficiently in the training of their own health personnel such as physicians and nurses, (b) in some of these same countries the demand for health care is now out-pacing the current health professional capacity, (c) some developing countries are producing more well qualified health professionals than can be meaningfully recruited and remunerated, (d) the opportunities for well paid positions in developed countries are becoming more evident to health professionals in developing countries, (e) developed countries are beginning to actively recruit qualified staff from developing countries, and (f) many of the diplomas in both sending and receiving countries are inter-changeable.

The "push" factors behind this growing phenomenon are well known, namely poor salary scales, little opportunity for advancement, and a growing awareness of what is available elsewhere. What is making the situation new and different, however, is the proactive recruitment that is taking place on the part of developing countries, and the fact that the drain of health professionals is now attaining proportions that suggest it could have serious consequences for the health process in the countries they are leaving. The paucity of trained health personnel available to work in the WHO 3X5 AIDS anti-retroviral therapy initiative is typical of the problem that is emerging in poor countries. The second is that although medical education may be less expensive in poor countries than in developed countries, it nevertheless constitutes a major economic investment by these countries, and when health professionals leave, the return on these educational investments is usually lost.

Despite the concern this issue is generating, the paucity of global statistics makes any detailed evaluation of its impact difficult (Dovlo and Martineau 2004). Statistics on health care personnel movement in some countries are weak and governments have not chosen to address

this issue for a variety of reasons, including the fact that they may feel unable to control the process. For some countries, however, there are good data and in the case of Nigeria it is possible to estimate that as many as 7.9% of the country's physicians have left to work abroad. It is also possible to say that much of the migration of health professionals from developing countries has to date been to the UK, the USA and Canada. In the UK, foreign doctors now constitute a sizeable proportion of the general practitioners and non-specialist categories in which non-EU professionals make up 65% of the "basic grades" of the health care system (Dovlo and Martineau, 2004). In the U.S.A. in 2002, 23.3 percent of active nonfederal physicians had been trained abroad, and 64.4 percent of these had come from lower income countries such as India, the Philippines, Mexico, and Pakistan (Hagopian et al., 2004). The number of South African trained physicians working in Canada increased from 174 to 1,738 in 2002 (Manda, 2004), and foreign trained medical professionals in general account for around 23 percent of Canada's health care workforce (O'Meara, 2004). In the case of nurses the situation is even more marked and some countries such as the Philippines have seen the training of nurses "for export" become an institutionalised affair with nursing schools and special courses advertising that they prepare nurses for recruitment abroad.

One of the implications of the demand for nursing staff has been the voluntary "downgrading" of professionals in order to meet the needs of recruitment drives. In the Philippines, for example, physicians are said to frequently retrain as nurses because they can receive better pay abroad as a nurse than in their positions in the Philippines. In 2003, 2000 physicians (2.9 percent of all practising physicians in the Philippines) are estimated to have enrolled in nursing schools and courses for this reason (Wolffers, Verghis, Marin 2003).

Historical links between countries have been built on in this recruitment process, and the movement of health care personnel from Commonwealth countries to the UK, USA and Canada reflect this. Most of the nurses moving from Ghana, South Africa, Nigeria and Zimbabwe go to hospitals, clinics and private agencies in the UK, many of which now actively recruit nursing personnel in these countries. Previous educational links are also important and in the case of physicians, a large proportion of them move to (or stay in) the countries where they received specialised training.

While the loss of local health care workers to foreign labour markets is cause for concern, there may be some benefits in terms of foreign investment and remittances. The World Bank estimates that in 2001, remittances sent back to developing countries reached a level of \$70 billion. This is 40 percent more than the development assistance the countries in question receive. Indeed there is a growing consensus that remittances are one of the primary gains of globalisation in the case of Africa (Manda, 2004) and according to a study in the Middle East and North Africa, international migration and remittances have made a statistically significant impact on poverty reduction in the region (Adams and Page, 2003).

Conversely, it has been estimated that remittances sent to sub-Saharan African countries (5 billion USD) constitute the smallest back-contribution of all "poor world" remittances (Hagopian et al. 2004), and that African emigrants to the U.S.A. contribute 40 times more to the US economy than to African economy (Manda, 2004).

While the migration of healthcare personnel from "poor to rich" countries is a cause for concern, it is worthwhile noting that there is also a growing return-migration phenomenon. This is in part due to attempts by international bodies to stem the flow and strengthen national capacities in developing countries. One such initiative has been the AIDS International

Training and Research Program (AITRP), which reports that it has had considerable success in training AIDS professionals personnel in their countries of origin, and in getting trained professionals to return to their home countries. According to one statistic, AITRP has achieved a return rate among those it has targeted of 80 percent (Martineau, 2004).

#### **Conclusions**

Migration has become an integral part of economic and social development everywhere. This is unlikely to change in the near future, although the directions of migration may well alter as new demands from countries such as China and the Gulf States emerge. However, despite the importance of migration for economic development, and in the case of Europe for demographic renewal, policies and regulations concerning migration are changing rapidly and on the whole are becoming less accommodating. In many parts of the world there are growing signs of new xenophobia and beliefs that countries have reached a watershed with respect to the extent they can economically and socially (culturally) absorb newcomers.

The contradictions between what countries need and how they perceive and respond to migration will no doubt become more evident in the years to come, and there is good reason to believe that policies will gradually revert to greater openness. In part the source of the problem lies not in any fundamental antagonism to migration and migrants but rather to the fact that much of the migration that is occurring is unplanned, relatively unregulated and increasingly evident. The need for better planning and management of migration has been widely recognized and is gradually being addressed by international and inter-government bodies.

The health dimensions of migration have to date received relatively little attention from either receiving or sending countries. Thus, with the exception of concern for the health of refugees in conflict and post conflict settings, the health of people on the move has remained a neglected field. There are, no doubt many reasons for this. The first and most important may be the fact that the pace of contemporary migration has outstripped the capacity of countries not only to respond but indeed to even keep pace with and acknowledge the growing scope and nature of cross-border migration. The second is that to acknowledge the health needs and problems of migrants is to some extent to recognize liability and responsibility. This, in an international context where the cost of health care is becoming a universal problem, may well be an important reason why countries have been reluctant to confront the issue of migration and the health care of migrants. A third reason is that surrounding the phenomenon of migration is the myth that all migration is ultimately successful and that in the final analysis everyone stands to benefit. While this may be true from a structural-functionalist perspective, the reality is that migration is (and probably always has been), characterized by relatively massive human wastage in terms of avoidable illness, injury, neglect and mortality.

What has changed since the latter part of the 20<sup>th</sup> century is the fact that more people are moving and doing so faster and further than ever before. The complexities of the health problems that are emerging as a result of this accelerating pace and scope are new and not entirely understood but call for much more attention than they have received to date. There are pragmatic as well as human rights reasons for addressing this theme. As the "ecological space" travelled by migrants increases, so the nature of the health problems associated with that movement may become more complicated for receiving societies as well as for the migrants themselves. The movement of tropical diseases involving parasitic infections for

which post-industrial countries are ill prepared is a case in point. It is also evident that as the cost of healthcare increases, the introduction of newcomers into any society could, at some point or another, increase the load on national healthcare systems, be these public or private. At the same time it is becoming evident that many of the policies and practices of receiving countries (that benefit from migrants' labour) are rendering migration and the life of migrants more insecure and risky from a health perspective. Policies that deny the movement of people as family units, for example, inevitably create major disruptions for family health and reproductive health. Some of these policies and practices may well have contributed (and be contributing) among other things to the HIV/AIDS pandemic.

Policies that intentionally or unintentionally have served to deny access by migrants to comprehensive health care in their countries of resettlement (even if only temporary) have also contributed to a worsening of the health of migrants and the larger public health of the countries concerned. This is now becoming evident with respect to the health dimensions of clandestine migration but it is by no means limited to this area. Short-term seasonal migrants are also confronted with the same problem and suffer the same types of consequences. In a world in which new communicable and non-communicable diseases are emerging and old ones re-emerging, the implications of this are far reaching and host countries will do well to address the challenge.

At the same time policies that fail to take into account the problem of occupational diseases and injuries in the framework of labour migration also do a disservice to those who move, their families left behind and to the industrial and insurance sector in host countries. Occupational diseases and accidents among migrants today represent a large proportion of all reported occupational diseases and accidents. When they occur they have an immediate impact on work productivity, on the cost of emergency care (where this is provided), and on rehabilitation.

Policies, or the lack of policies, that impose unnecessary stress on migrants are also in danger of contributing to psychosocial problems, poor social insertion and adjustment, and in many cases to social deviance. None of these outcomes is easily managed and all of them, in one way or another, create a financial burden to both migrants and host societies. The social costs, however, may be even greater and this remains a theme that calls for far more concern and attention than it has been given to date. In a world in which social and political instability quickly translates from a personal to a more group level, the policies and programs of host countries would do well to encourage and facilitate social insertion.

The apparently growing tendency for health professionals from poor countries to be actively recruited by developed countries constitutes another growing challenge. If it were to continue unmanaged, it could become a major detriment to health development in sending countries and make medical and nursing education in these countries less sustainable. New permutations clearly need to be found to respond to this phenomenon and note will have to be taken of this by first world countries that increasingly express concern that the Millennium Development Goals are not being met by developing countries.

In a world in which the inter-relationships and inter-dependencies between countries are becoming more marked, failure to respond to the emerging realities of poor health and disease in the context of migration could prove myopic from a political, economic and social perspective by all concerned.