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# The effects of international emigration and return of Georgian migrants upon the spread of infectious diseases in the republic of Georgia

***Report for the EC Migration and Asylum Thematic Program funded project: The effects of migration in Moldova and Georgia on children and elderly left behind***


DEVELOPMENT AND COOPERATION – EUROPEAID

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## Executive Summary

International migration and transmission of communicable diseases are interconnected in several ways. First of all, international movement of people creates epidemiological bridges across different geographic disease environments as migrants carry with them health-footprints from one location to another (Wilson, 2003; Gushulak & MacPherson, 2004; Yang, 2004; Barnett et al. 2009). Further, selectivity of migrants, the type of migration, and social determinants associated with the migration experience, such as health care access, family separation and living conditions, affect the health of migrants during each stage of the migration process and may contribute to increased vulnerability to infectious diseases, either through indirect exposure or through risk-taking behaviours (Carballo & Mboup, 2005; Davies, Basten, & Frattini, 2006; Barnett et al., 2009). As migrants return back to their communities of origin, this enhanced vulnerability to infections may be transmitted to migrants' family members and partners.

The former Soviet republic of Georgia, located in the Southern Caucasus, has since independence in 1991 experienced armed conflicts, worsening economic conditions and rising unemployment. The unfavourable political and socio-economic developments have resulted in large out-flows of migrants from the country. In fact, since 1989, Georgia has lost more than 20 percent of its population to emigration, representing nearly 1.1 million emigrants (World Bank, 2011; IOM, 2008). Since 1996, the majority of Georgian emigrants have been labour migrants, of which many irregular, searching better economic opportunities abroad. Traditionally, the most popular destination countries have been other former Soviet Republics, particularly Russia and Ukraine. However, over the last decade the migration patterns have started to move towards Western Europe following increasing feminization of Georgian emigration.

During the period of rising emigration levels, Georgia has, as many of the former Soviet Republics, also experienced rising prevalence levels of HIV/AIDS, STDs, tuberculosis and hepatitis (Gotsadze et al., 2004; Buckley, 2005; Toungoussova et al., 2005; Stvilia et al., 2006; MoLHSA & NCDCPH, 2010). While the reasons for the epidemics are related to a disintegration of the health care system, internally displaced populations, increasing

prevalence of injecting drug use and poverty, international population movement has also been identified as an important factor in the spread of some of these infectious diseases in Georgia (Gotsadze et al., 2004; Buckley, 2005; Toungoussova et al., 2005). According to data collected by the AIDS and Clinical Immunology Research Centre in Tbilisi, no less than 44 % of HIV positive individuals in Georgia were infected in a foreign country between 1989 and 2009 (AIDS centre, 2011). The majority of these were infected in Russia (69 percent) and Ukraine (18.6 percent) and other former Soviet Union countries (12 percent). While no similar data is available for other infectious diseases, the high prevalence of tuberculosis, STDs and hepatitis B and C in Russia and Ukraine, substantiates the possibility that Georgian migrants in these countries also are vulnerable to these sexually transmitted and blood borne diseases, which they may transfer to the Georgian society upon return.

This study addresses the paucity of information available about the relationship between the spread of infectious diseases and international migration from Georgia by investigating the effects of international emigration and return of Georgian migrants upon the spread of infectious diseases in the republic. More specifically, the study investigates under what conditions international migration affect Georgian migrants' vulnerability to infectious diseases during migration, and in turn, migrants' non-migrating family members' vulnerability to infectious diseases upon the return of migrants to Georgia. The methodology applied is qualitative in-depth interviews with migration and/or health experts in Tbilisi, in addition to review of secondary data.

The results show that migration as such cannot be seen to increase Georgian migrants' vulnerability to infectious diseases. Rather, specific characteristics of migrants and conditions related to certain migration experiences enhance migrants' disease vulnerability. The study found that Georgian irregular male labour migrants travelling alone to high disease prevalent countries, such as Russia and Ukraine, in addition to female migrants working as prostitutes abroad, were highly vulnerable to sexually transmitted and blood borne infections due to a range of individual- and structural-level determinants. As these types of migrants return to families and partners in Georgia, the potential for disease transmission is considerate, especially in rural areas where access to health care services is limited.

Based on the findings from the study, the following policy recommendations are proposed to remedy the negative relationship between emigration/return of certain Georgian migrant groups and the public health of the Georgian society:

1. Provide Georgian migrants (documented and undocumented) returning from disease prevalent countries such as Russia and Ukraine, with free, voluntary counselling, testing and treatment of STDs, hepatitis and tuberculosis.
2. Ensure that all health care personnel in Georgia routinely collect data on patients' migration history and track migrants' and returning migrants' health status.
3. Target "most at risk" migrant groups, such as labour migrants migrating to Russia, Ukraine or Turkey, before departure and after return, with education on health risks and how these can be prevented.
4. Provide health education programmes for migrant-sending households to enable them to protect themselves from infections when migrants return.
5. Implement health education lectures within the Georgian school system focusing on prevention of disease transmission and reproductive health. This would in the long run reduce stigma and contribute to earlier case detection, lowering the potential for disease dissemination.
6. Ensure universal access to primary health care and reproductive health services in Georgia, including rural areas.
7. Promote gender equality enabling women to take responsibility for their own reproductive health.
8. Regulate migration flows in order to limit the number of undocumented Georgian migrants suffering from lack of health care access in destination countries.
9. Push migrant-receiving countries to follow the recommendations of the Council of Europe, ensuring access to and entitlements to health care for migrants, including illegal migrants.

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## Attachments



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## Abbreviations

| | |
|---|---|
| AIDS | Acquired immune-deficiency syndrome |
| AIDS centre | AIDS and Clinical Immunology Research Centre |
| ARV | Anti-retroviral treatment |
| CIA | Central Intelligence Agency |
| CIS | Commonwealth of Independent States |
| CIPDD | The Caucasus Institute for Peace, Democracy and Development |
| CNEHRN | Correlation Network, Eurasian Harm Reduction Network |
| CRRC | Caucasus Research Resource Centres |
| CSW | Commercial Sex Worker |
| EECA | Eastern Europe and Central Asia |
| EU | European Union |
| FDG | Focus group discussions |
| FSU | Former Soviet Union |
| Geostat | National Statistics Office of Georgia |
| GFATM | Global Fund to fight AIDS, Tuberculosis and Malaria |
| GHPP | Georgia HIV Prevention Project |
| HAV | Hepatitis A virus |
| HBV | Hepatitis B virus |
| HCV | Hepatitis C virus |
| HIV | Human immunodeficiency virus |
| ICMPD | International Centre for Migration Policy Development |
| ICSRPA | International Centre for Social Research and Policy Analysis |
| IDMC | Internal Displacement Monitoring Centre |
| IDP | Internally displaced populations |
| IDU | Injecting Drug User |
| ILO | International Labour Organization |
| IOM | International Organization for Migration |

| | |
|---|---|
| MARP | Most at Risk Populations |
| MDR TB | Multidrug-resistant tuberculosis |
| MoLSHA | Ministry of Labour, Health and Social Affairs |
| MSM | Men having sex with men |
| NCDCPH | National Centre for Disease Control and Public Health |
| NCTLD | National Center for Tuberculosis and Lung Diseases |
| NHA | National Health Accounts |
| OOP | Out-of-pocket payments |
| PHC | Primary Health Care |
| PMTCT | Prevention of mother to child transmission |
| STD | Sexually transmitted diseases |
| STI | Sexually transmitted infections |
| TB | Tuberculosis |
| THE | Total Health Expenditure |
| UNAIDS | Joint United Nations Programme on HIV/AIDS |
| UNDP | United Nations Development Programme |
| UNHCR | United Nations High Commissioner for Refugees |
| USAID | United States Agency for International Development |
| VCT | Voluntary Counselling and Testing |
| WHO | World Health Organisation |
| WHO/EUROPE | World Health Organisation Regional Office for Europe |

## Introduction

The relationship between international migration defined as "human movement across international borders, resulting in a change of country of residence" (UNDP, 2009), and transmission of diseases, has long been recognized. However, in line with changed patterns and intensified magnitude, speed and distance of international migration flows since the 20th Century, the effects upon health at both individual and population level, have increased.

International migration and transmission of communicable diseases are interconnected in several ways. First of all, international movement of people creates epidemiological bridges across different geographic disease environments as migrants carry with them health-footprints from one location to another (Wilson, 2003; Gushulak & MacPherson, 2004; Yang, 2004; Barnett et al. 2009). Further, selectivity of migrants, the type of migration, and social determinants associated with the migration experience, such as health care access, family separation and living conditions, affect the health of migrants during each stage of the migration process and may contribute to increased vulnerability to infectious diseases, either through indirect exposure or through risk-taking behaviours (Carballo & Mboup, 2005; Davies, Basten, & Frattini, 2006; Barnett et al., 2009). As migrants return back to their communities of origin, this enhanced vulnerability to infections may be transmitted to migrants' family members and partners (Morris, Podhista, Wawer, & Handcock, 1996; Lurie et al. 2002; Soskolne & Shtarkshall, 2002; Kishamawe et al., 2006; Sevoyan & Agadjanian, 2010).

The Republic of Georgia is a small country located in the Southern Caucasus in the nexus between Europe and Asia. Since the country's independence from the Soviet Union in 1991, Georgia has experienced a substantial intensification of emigration, foremost to other former Soviet Union countries, but more recently also to Western countries. In 2010, Georgia was one of the world's top emigration countries, with emigrants representing 25.1 percent of the Georgian population (The World Bank, 2011). While civil wars drove most of the emigration from Georgia in the early 1990s, unemployment and poverty have been the main push-factors since, and irregular labour migration constitutes today the main form of migration from the country. Since independence,

Georgia has also experienced rising epidemics of immunodeficiency virus (HIV)/ acquired immunodeficiency syndrome (AIDS), sexually transmitted diseases, tuberculosis and viral hepatitis, as many of the former Soviet republics (Gotsadze, Chawla & Chkatarashvili, 2004; Buckley, 2005; Toungoussova, Bjune & Caugant, 2005; Stvilia et al., 2006; MoLHSA & NCDCPH, 2010). While the drivers behind the epidemics are related to disintegration of the Georgian health care system, increasing prevalence of injecting drug use, poverty and large numbers of internally displaced populations, international emigration and return from former Soviet Union (FSU)-countries have also been identified as an important influence on the spread of infectious diseases within the republic.

### *Purpose of research*

Georgian patterns of emigration may entail health risks for migrants and in turn for the Georgian society as migrants return. However, the relationship between the spread of infectious diseases and international migration from Georgia has so far received little attention and there is a relative paucity of information on this issue in Georgia. The purpose of this study is thus to address the information gap by investigating the effects of international emigration and return of Georgian migrants upon the spread of infectious diseases in the Republic of Georgia. Through the research, the study also hopes to highlight some of the policy dimensions and implications associated with the migration-health relationship in the country.

### *Research focus*

The exact research question investigated in this paper is: "Under what conditions does international migration affect Georgian migrants' vulnerability to infectious diseases during migration, and migrants' non-migrating family members' vulnerability to infectious diseases upon migrants' return?". The research question is as such divided into two parts; the first part concerns Georgian migrants' vulnerability to infectious diseases after entry to the destination country, while the second part relates to migrants' return to Georgia and the potential for disease transmission to non-migrating family members.

Vulnerability is a complex and contested concept with different definitions depending on the discipline in which it is discussed. However, in general, vulnerability entails a

notion of risk, such as health risks which are considered in this study. According to Heitzmann, Canagarajah & Siegel (2002): "risk is characterized by some probability distribution of uncertain events. (...). Whether individuals, households, communities, regions, nations or larger entities are actually exposed to risks (or, susceptible to risks) depends on various factors. For example, the existing health and nutritional status of individuals, their physical assets such as housing, infrastructure and household location, as well as on their educational levels and available information, and their cultural and behavioral practices, and other factors determine a household's exposure to health risks" (p. 7-8).

This report will try to identify factors associated with migration exposing or making Georgian migrants' susceptible to the risk of HIV/AIDS, viral hepatitis, STDs and tuberculosis infections. These particular diseases will be considered given the high or rising prevalence levels of these diseases within Georgia. Further, the study will try to identify factors which facilitate the transmission of infections to migrants' non-migrating family members upon the return of the migrant.

There are many forms of international migration, including forced and voluntary. While recognising that forced migration in the form of human trafficking is still ongoing to some extent in Georgia, the paper will mainly be concerned with voluntary labour migration, as this is the main type of emigration from Georgia. While each stage of the migration process influences migrants' vulnerability to infectious diseases, this study will focus mainly on the post-entry phase of the migration process by identifying the conditions related to the migration process that affect Georgian immigrants' vulnerability to infectious diseases in the host-country. In terms of migrant families' vulnerability to infections, it is the direct relational effects of return migration that will be investigated, although the indirect behavioural effects of migration upon migrant-sending households will be discussed to some extent.

In order to specify the research focus and clarify the information needed to answer the research question, the following sub-questions are posed:

- Does international migration enhance Georgian migrants' vulnerability to HIV/AIDS, sexually transmitted diseases, hepatitis and/or tuberculosis during the post-entry phase of migration? Why and why not?

- Does the risk of infection vary according to different characteristics of migrants and to social conditions related to the migration experience, such as destination country, legal status, gender, type of occupation in destination country, etc.? Why and how?
- Is the return of Georgian migrants from abroad associated with increased HIV/STDs/hepatitis/TB vulnerability among their families left behind in Georgia? Why and how?
- Are areas in Georgia with high levels of out-migration associated with higher HIV/STD/hepatitis/TB prevalence rates than low-out migration areas? Why?

### *Hypotheses*

To better demonstrate the interconnectedness between the different factors influencing migrants' vulnerability to infectious diseases at each stage of migration, and how the vulnerability is transmitted to non-migrating family members, two frameworks are presented in the literature review (fig. 1 and 2). Based upon these frameworks and a review of secondary sources about Georgian migration and health conditions, certain hypotheses have been developed. Hypotheses 1 A, B and C are related to the first part of the research question, namely under what conditions international migration affects Georgian migrants' vulnerability to infectious diseases in destination countries:

**A) The selection of Georgian migrants affects their vulnerability to infectious diseases:**

- Positively in terms of the general high level of education among Georgian migrants, which may entail better health knowledge and ability to prevent infections

**B) The migration experience makes Georgian migrants more vulnerable to HIV/AIDS, STDs, hepatitis and TB infections relative to non-migrants because:**

- Georgian migrants, especially those with illegal status, might experience limited access to appropriate health care services in destination countries
- Many travel without partners which enhance the likelihood of undertaking

high-risk behaviours abroad[1]

- Illegal status may entail that living and working conditions abroad are directly strenuous on migrants' health and/or indirectly affect individual level psychological factors (loneliness, stress) which enhances likelihood of undertaking risk-taking behaviours

**C) Georgian male migrants are in general more vulnerable to HIV/AIDS, STDs, hepatitis and TB infections than female migrants because:**

- They are more likely than women to migrate to high HIV/STD, hepatitis and TB prevalent countries, such as Ukraine and Russia[2]
- They are more likely to inject drugs, which is the main HIV and HCV transmission mode in FSU-countries[3]
- They are more likely to practice high risk sexual behaviour with CSWs abroad and to have extra-martial sexual partners[4] because of higher acceptance of infidelity among men than among women in Georgian culture
- They are at risk of being sent to prisons due to illegal status in countries where TB is extremely prevalent in prisons, such as in Ukraine and Russia[5]

[1] Many individuals migrate alone and the separation from families and spouses creates sexual frustration, loneliness and isolation. In order to reduce these feelings, migrants may be more likely to engage in high-risk sexual relationships or/and to abuse alcohol or drugs (Yang, 2004).
[2] Both Russia and Ukraine have higher prevalence/incidence rates of HIV/AIDS, STDs, TB and Hepatitis than Georgia (see table 2). A more elaborate discussion of this will follow later.
[3] Injecting drug use is far more common among Georgian males than females (Bemoni Public Union & Curatio International Foundation, 2009).
[4] Except compared to female migrants working as prostitutes abroad whose type of work make them particularly vulnerable to sexually transmitted diseases
[5] TB prevalence rates in Russian prisons has been found to be as high as 4560 per 100 000 population (WHO, 2008).

Hypothesis 2 relates to the second part of the research question: under what conditions does the return of migrants affect the vulnerability to infectious diseases among migrants' families left behind in Georgia?

**2) Georgian migrants infected by HIV/AIDS, STDs, hepatitis and/or TB and who return to Georgia are likely to transmit infection(s) to family members at home because:**

- Frequent return due to "peddling migration" creates repeated opportunities for disease transmission relating specifically to epidemiological bridging
- Many migrants do not know they are infected when they return due to limited health care access abroad
- Many migrants avoid getting tested for HIV/STDs when they return due to stigma and/or limited geographic and/or financial access to health care services in home community
- Sex without condoms with regular partner is common among Georgian couples and creates opportunities for transmission of HIV/STDs/HBV[6]
- Women infected by migrant husbands can transmit HIV to children via vertical transmission in areas where access to health care is limited

These hypotheses drawing on available documentation, statistics and on the established theoretical frameworks developed in the literature review form the basis upon which the primary research will be conducted. The aim of the research is thus to test the above hypotheses, in addition to provide answers to the sub-questions of the report.

### *Methodology*

In addition to a review of available documentation and statistics providing insights into the relationship between international emigration and infectious diseases in Georgia, this study has tested the above hypotheses through qualitative research. The qualitative data was collected through in-depth interviews with health care workers and migration and health experts in Tbilisi in Georgia. In total, 19 interviews were undertaken with

[6] Condom utilization is particularly low in Georgian rural areas and among people with low levels of education (Badurashvili et al., 2008). Reasons identified by Georgian women for not using condoms are shame to buy condoms, lack of availability, male partner not liking condoms or objecting to using it (Martirosyan, 2011).

doctors and migration and/or health experts representing local non-governmental organisations, international organisations and governmental institutions.

### *Findings*

The results clearly demonstrated the complexity of the relationship between migration and health and how Georgian migrants' vulnerability to infectious diseases is influenced by a whole range of individual- and structural-level factors during each phase of their migration experience. The first part of the research question asked under what conditions international migration affects the vulnerability of Georgian migrants to infectious diseases during the migration period. According to the findings of this study, the most important conditions influencing Georgian migrants vulnerability to infectious diseases were found to be: the disease environment in the destination country, migrants' legal status determining access to health care and risk of being detained, the type of work undertaken abroad, and migrants' susceptibility to undertake unhealthy risk-behaviours, such as injecting drug use or risky sexual behaviour. Migrants' likelihood of undertaking risk behaviours was found to be determined by migrants' gender, pre-departure level of health-knowledge, living conditions and the social dynamics of migration.

Thus, while migration as such was not found to increase migrants' disease vulnerability, rather migrants' characteristics and conditions related to certain migration experiences increased exposure to sexually transmitted and blood borne infections. The identified migrant risk groups were Georgian male irregular labour migrants in Russia and Ukraine, in addition to female migrants working as commercial sex workers in Turkey. These migrant groups were at risk mainly to infections of sexually transmitted or blood borne diseases due to risk-taking behaviours, such as injecting drug abuse and/or unprotected sexual intercourses.

The second part of the research question was concerned with under what conditions international migration affects the vulnerability to infectious diseases among migrants' non-migrating families at the point of migrants' return to Georgia. The findings showed that in the Georgian case, the potential of transmission upon migrants' return was dependent upon the vulnerability factors experienced by Georgian migrant in the

destination country. In addition, migrants' and migrants' family members' risk profiles in terms of level of health knowledge, habits in terms of condom utilization, and structural determinants within the migrant-receiving community, such as access to health care/prevention services and the level of societal stigma associated with migrants' diseases, were factors identified to affect migrants' family members vulnerability to infectious diseases carried by the returned migrant.

More specifically, migrant-sending families in rural areas without sufficient access to health care, limited health knowledge and who practice low utilization of condoms are highly vulnerable to sexually transmitted disease transmission as an irregular labour migrant and family member/partner returns from Russia or Ukraine (and to some extent from Turkey). While returned migrants from Russia and Ukraine may also transmit TB infections, the vulnerability to TB is already very high within Georgia and non-migrant sending families may as such be at equally high risk of TB infections as migrant-sending families.

In order to remedy this negative relationship between certain types of Georgian migration and infectious diseases, a list policy recommendations have been proposed. These entail among others targeting of "most at risk" migrant groups and their families providing them with knowledge about prevention of health risks related to migration. Further, the recommendations propose regularisation of Georgian migration flows, universal access to health care services in Georgia, promotion of gender equality and implementation of health education lectures in Georgian public schools.

### *Structure*

This paper will in chapter one, discuss the complexity of the migration-health relationship by reviewing research investigating how health affects migration and how migration affects health. Thereafter, the review will concentrate on the effects of international migration upon migrants' vulnerability to infectious diseases while in destination countries, and upon the disease vulnerability of family members left behind. The second chapter will first provide an overview of the socio-economic developments in Georgia since independence, including the developments of the health care system. Secondly, the migration patterns in the country will be reviewed in order to identify

trends and patterns that might make Georgian migrants and their families vulnerable to infectious diseases. Thirdly, the epidemiology of HIV/AIDS, STDs, TB and viral hepatitis will be discussed in relation to international emigration and return to Georgia. The third chapter will explain the methodology applied and the rationale behind it, and discuss its limitations. The results of the interviews will be presented and analysed in chapter four and lastly, implications and conclusions will follow in chapter five.

# Chapter 1: Theoretical framework of migration and health

The objective of this research is to investigate firstly, under which conditions international migration affects the vulnerability to infectious diseases among Georgian migrants during the post-entry phase of migration and secondly, the effect of migrants' return upon migrant sending families' vulnerability to infectious diseases. The infectious diseases considered specifically are HIV/AIDS, other sexually transmitted diseases, hepatitis A, B and C, and tuberculosis. In order to understand the complexity of the relationship between health and international migration, the first chapter will engage in a theoretical discussion about migration and health, reviewing existing literature on the subject. The literature review will concentrate on the effects of international migration upon migrants' vulnerability to infectious diseases while in destination countries, and upon the disease vulnerability of family members left behind. While the review will draw upon literature from across the world, the focus will be on research undertaken in Former Soviet republics in Eastern Europe and Central Asia, regions with many commonalities to the Republic of Georgia.

## International migration and health

According to Carballo Divino, & Zeric; "migration has probably become one of the most important determinants of global health and social development" (1998, p. 936). While populations have migrated, both within and across countries, throughout history, the current magnitude, speed and distance of international population movement has rapidly increased since the 20th century. Growing income disparities between countries push poor people in less developed countries to seek a better life in richer countries. At the same time, push-factors such as developed countries' recruitment of cheap labour from abroad, reduced transport costs and the media's tales of "a better world", encourage people to relocate more often and over bigger distances than before (Carballo, 2007). This increased geographic relocation of people across frontiers is happening in an era when attitudes and policies towards immigration are toughened and many countries are simply not prepared or able to deal with the increased

immigration flows. This trend brings with it health implications, not only for the societies who receive the migrants, but also for the migrants themselves and for those who are left behind in the place of origin.

## Health-migrant relationship

The relationship between migration and health is complex, operating in a two-directional way, mediated by disease exposure and a whole range of social determinants (Kahn et al., 2003; Davies et al., 2006; Barnett et al., 2009). First of all, health might influence migration. The migration process is in itself inherently selective as the decision to migrate may depend on health status (Findley, 1988). Healthy people may be more likely to migrate than people in poor health, assuming that sick people have fewer resources to spend on migration and want to avoid the possible stress associated with dislocating. On the other hand, poor health can also influence the migration decision as "disabled or chronically ill may be more likely to migrate, in search of better care or an easier living situation" (Findley 1988, p. 4).

The first assumption, namely that people in good health are more likely to migrate than people in poor health, is related to the "healthy-migrant" hypothesis. The healthy migrant hypothesis states that healthy persons are more likely to move and thus immigrants tend to be healthy and even generally healthier than native populations in host countries (Chen, Ng & Wilkins, 1996 in Soskolne, 2007). Several studies from the US, Canada, England and Wales, Germany and the Netherlands confirm this hypothesis as they found that migrants had lower mortality rates and higher life expectancy rates than natives in the destination country (Canada: DesMeules et al., 2004; USA: Hummer et al., 1999; Rubia et al., 2002; Singh & Miller, 2004; Muennig & Fahs, 2002; England and Wales: Marmot et al. 1984; West Germany: Razum et al. 1998; The Netherlands: Uitenbroek & Verhoff, 2002 in Lassetter & Callister, 2009). Thus, prior health status can affect migration outcomes.

## Migrant-health relationship

Despite this selection bias creating an apparent "health advantage" of at least voluntary international migrants, migrants' health are also affected by the conditions surrounding the migration experience. Theoretically, this is seen as the migration-health relationship (Findley, 1988). Firstly, migration may have important positive effects on migrants' health. As migrants move to move developed countries, they might improve their access to healthcare services and to better quality information, to better sanitation, potable water and refrigeration and to higher incomes, which could lead to better health outcomes (UNDP, 2009). Research commissioned by the UNDP found that migrants from developing countries to developed countries experienced a 16-fold reduction in child mortality (UNDP, 2009).

How migrants' health is changing following migration is often explained by the effect of acculturation (Jasso et al. 2004; Oppedal et al. 2004; Wiking et al. 2004; Marmot 2006 in Davies et al., 2006). Acculturation is defined in Castaneda (2010) as "the process of adopting the cultural habits, traits, and ideals of another population through continued contact, along with concurrent loss of previously held traits" (p. 17). Depending on the cultures of countries of origin and destination, acculturation can have positive and negative effects on migrants' health. Based on observed deteriorating health over time among Latino immigrants in the United States, some scholars have concluded that "migrants from cultures with protective health practices experience deteriorating health the longer they remain in Western host countries and adopt the host countries' unhealthy cultural practices" (Lassetter & Callister, 2009, p. 97). The adoption of unhealthy western dietary habits and exercise patterns have for example been found to increase risk of overweight, diabetes and cardiovascular disease among immigrants (Ebrahim & Smeeth, 2005 in Davies et al., 2006).

However, other factors that cannot be explained by acculturation also influence migrants' health. Social determinants such as costs of and access to health care, discrimination, living and working conditions, legal status, family configuration etc. have important consequences for a migrant's health status and must also be considered while exploring reasons for a migrant's deteriorating or improved health post migration (Castaneda, 2010).

Thus, the relationship between migration and health is complex and ultimately, how the experience of migration impacts upon the migrant's health depends upon a whole range of factors in addition to the selectivity of the migrant. While migration in itself is not a risk to health, the conditions surrounding the migration experience may enhance or decrease migrants' vulnerability to ill health. Migrants may in many cases have an initial health advantage relative to non-migrant populations due to the selectivity of the process, however the social conditions they are confronted with after immigration often make migrants vulnerable to health problems, and particularly to communicable diseases, such as TB, hepatitis, STDs and HIV/AIDS (Carballo et al., 1998). The next section will review migrants' vulnerability to communicable diseases, including sexually transmitted diseases, and in turn how return of migrants to their home communities, can place family members and partners left behind in risk of infections.

## International migration and infectious diseases

### Epidemiological bridging

International migration has always been associated with the spread of infectious diseases. In fact, each stage of the migration process influences migrants' vulnerability to infectious diseases and creates opportunities for prevention and disease control. In the pre-migration phase, a migrant's health reflects the disease profile of his or her country of origin (Barnett et al., 2009). Thus, as a migrant move from a high to a low disease prevalent area, he or she might act as a disease vector, a risk factor in the transmission dynamics of infectious diseases (Wilson, 2003; Gushulak & MacPherson, 2004; Yang, 2004). This is often called "epidemiological bridging". According to Gushulak and MacPherson (2004), the public health impact of the epidemiological bridging produced by migration is determined by two factors: the first is the degree of difference between origin and destination, and the second is the size of the migration flow moving between the different disease prevalence regions.

Under today's international migration patterns, a large part of the economically motivated migrants move from less developed regions to more economically developed countries. For example, in the EU, more than 70 percent of all immigrants come from

Eastern and Southern Europe and Northern Africa. In addition, the number of migrants from Latin America, Asia and Sub-Saharan Africa is growing (Barnett et al., 2009). In many of these poorer countries, prevention and control of infectious diseases is insufficient and when coupled with poor socio-economic conditions, the risk of exposure becomes high. As migrants move from these areas to low prevalence areas, they often transport diseases associated with low socio-economic status and poorly developed health infrastructures with them (Carballo & Mboup, 2005).

A salient example of this is tuberculosis, which is associated with poverty and poor living conditions (Carballo et al., 1998). Many western countries have experienced increased rates of tuberculosis over recent years, partly reflecting the increased inflow of migrants from poorer countries with higher TB prevalence rates (Carballo & Mboup, 2005; Castaneda, 2010). In 2007, 21 percent of all reported TB cases in the EU were of foreign origin (Barnett et al., 2009). In the Netherlands, the incidence[7] of TB rose by 45 percent between 1987 and 1995, with over 50 percent of identified cases of infection occurring among immigrants (Carballo & Nerukar, 2001). The incidence and prevalence of drug-resistant tuberculosis is also associated with migration from countries with high rates of multidrug-resistant tuberculosis (MDR TB), such as former Soviet Union (FSU) countries (Barnett et al., 2009; WHO, 2000 in Castaneda, 2010). High prevalence of both TB and MDR TB in many FSU countries is related to economic decline and collapsing health infrastructures following independence (Cox et al., 2004). While migration from these countries influences TB prevalence levels in Western Europe, it also influences prevalence levels within the regions of Eastern Europe and Central Asia as a whole. In fact, the TB and MDR TB epidemics in FSU countries are fuelled by migration, and particularly by labour migration from high-prevalent countries such as Kyrgyzstan, Tajikistan and Uzbekistan to Kazakhstan and Russia (USAID, 2009; Toungoussova et al., 2005).

[7] The incidence rate (or just incidence) is a measure of the frequency with which a disease occurs in a population over a period of time

## Conditions surrounding the migration process and increased vulnerability to infectious diseases

Thus, migration may be a direct means of communicating infectious diseases from one area to another, influencing the public health environment in the place of destination. However, a migrant's health is not only a footprint carried with him or her from the place of origin, it is also affected by the conditions surrounding the migration process, both during the transitional phase and the post-entry phase (Barnett et al., 2009). In terms of the transitional phase, the process of migrating may itself expose the migrant to diseases. While migrants moving by regular channels usually experience a safe journey, irregular migrants often undergo hazardous journeys under unhealthy conditions over long periods of time (Davies et al., 2006). Experiences of exploitation and violence during journeys, in addition to life-threatening and over-crowded travel-modes, can have serious detrimental short- and long-term effects upon migrants' health (Davies et al., 2006 and Carballo, 2007).

The post-entry phase, which this study will focus its research upon, signifies the period after the migrant has settled in the destination country and the following process of adaptation or acculturation. During this period, migrants' health may be influenced by a whole range of socio-economic, cultural and political factors (Gushulak & MacPherson, 2004; Barnett et al., 2009). Often, risks to ill health are linked to the legal status of the migrant, which determines the level of access to health and social services. Other risk factors are poor socio-economic conditions, unfavourable housing and working conditions, low levels of education, discrimination and stigma, language barriers and culture differences, separation from family etc. (Davies et al., 2006). The next sections will look into social conditions to which migrants are exposed in host countries and which influence their vulnerability to infectious diseases, including sexually transmitted diseases.

### Living and working conditions

As mentioned, migrants' vulnerability to infectious diseases cannot solely be explained by their epidemiological footprints and the association between migration and many infectious diseases is thus not a direct one (Junghanss, 1998 in Castaneda, 2010). Rather,

it is also influenced by indirect social determinants. Migrants often experience relative deprivation in host countries and many live in cheap, overcrowded and poor quality housing. This is particularly the case for many labour migrants, who work hard and save money in order to send remittances back home (Carballo, 2007). Under such poor living conditions, migrants' vulnerability towards both chronic and communicable diseases, such as asthma and tuberculosis tend to increase.

According to Carballo et al. (1998), tuberculosis is a disease associated with poor living standards, characterised by low levels of education, inadequate nutrition, poor housing and overcrowding. Many migrants become exposed to the disease as a result of poor living conditions in host countries, which have raised concerns from a human rights and a public health perspective (Carballo & Mboup, 2005). In a study of immigrant agricultural workers in Spain, it was revealed that 85 percent lived in overcrowded rooms, 75 percent did not have running water or toilet facilities, 70 percent had no electricity and 95 percent had no heating or air conditioning (Carballo et al., 1998). In Italy, such poor housing conditions together with limited access to health services have been identified as possible threats for development of chronic and drug resistant TB (Carballo & Mboup, 2005).

Sub-standard living conditions are hence an important risk factor for development or reactivation of latent TB among migrants. According to Barnett et al., (2009), many migrants who already have a history of TB, may have the disease reactivated as a result of overcrowded and poorly ventilated living facilities, homelessness and insufficient nutrition in destination countries.

Apart from poor housing conditions, being a prison inmate clearly enhances the risk of TB infection in many countries. Due to conditions of overcrowding and poor ventilation, TB and MDR TB are particularly prevalent in prisons. As migrants tend to be disproportionally represented in prison, often as a result of their illegal status in destination countries, they may be at higher risk of being exposed to TB than non-migrants (Toungoussova et al., 2005; Weine, Bahromov & Mirzoev, 2008; Barnett et al., 2009).

Tuberculosis is not the only infectious disease related to adverse conditions and to which migrants are vulnerable. Hepatitis A, which is transmitted directly from person to person through injecting drugs or sexual contact or by consumption of contaminated food or water, is also related to poor living conditions. The disease is endemic in countries with overcrowded living conditions, poor hygiene and limited access to clean water and sanitation (Carballo & Nerukar 2001; Barnett et al., 2009). Although there is little evidence that this disease is related to migration in Europe, infections in Hungary have been linked to immigration from former Yugoslavia and China. Also circular migrants travelling back and forth between high and low prevalence countries are particularly vulnerable to the disease (Barnett et al., 2009)

The work environment in the destination country also determines migrants' health status and may expose them to risk factors to contract infectious diseases. The demand for foreign low skilled labour has increased considerably in industrialised countries due to changing economic and demographic trends (ILO, 2008). Due to a shortage of low skilled workers and concern about keeping labour costs down, many small and medium sized companies and labour-intensive sectors hire migrants to fill low skilled, precarious and poorly-paid jobs (ILO, 2008). The high demand for cheap labour act as an important pull factor for migrants who tend, at least initially, to move into low-skilled and temporary employment often characterised by poor working conditions and lack of training, exposing them to occupational injuries and communicable and non-communicable diseases (Carballo et al., 1998; Davies et al., 2006).

Several studies have drawn attention to the harsh conditions under which male labour migrants from Eastern Europe and Central Asia live and work, especially in Russia (IOM, 2002; Renton, Gzirishvilli, Gotsadze & Godinho, 2006; Amirkhanian et al., 2010). According to Marat (2009), over 44 percent of all migrants in Russia live in adverse conditions and in an IOM study undertaken in Kyrgyzstan, it was found that half of the returning labour migrants came back with worse health than when they left, due to "heavy lifting, freezing temperatures, insufficient health care and poor living conditions" in Russia (Marat, 2009, p. 32). Tajik labour migrants have been reported to be living in unsafe conditions at building sites, in forests, warehouses and even in garbage collection

areas in Russia, evidently exposing them to health risks, such as respiratory infections (Olimova & Bosc, 2003; Weine et al., 2008).

**Fact box 1**- TB and Hepatitis A

## Tuberculosis (TB)

TB is a disease of poverty, affecting primarily young adults in their most productive years. An estimated 14 million people worldwide are infected with active tuberculosis. In 2009 there were 9.4 million new cases of TB and 1.7 million deaths (GFATM, 2011). In the WHO European region, Kazakhstan, Romania, the Russian Federation, Turkey, Ukraine and Uzbekistan account for more than 70 percent of the TB burden. The Russian Federation has the 11th highest TB burden in the world (WHO, 2011, (a))

TB is caused by Mycobacterium tuberculosis and is spreads through the air. People infected with pulmonary (lung) TB can spread the disease by coughing, sneezing or even talking. If left untreated, one person with active TB infects on average 10-15 persons.

One in ten people infected with Mycobacterium tuberculosis develop active TB during his or her lifetime. The risk of developing TB is much higher for HIV-infected people.

Tuberculosis is generally treatable with a regularly and uninterrupted antibiotics cure for six to eight months. Supervised treatment helps to ensure that an infected person completes the course of medicine and prevent its further spread. The internationally recommended approach to TB control is DOTS, which is a cost-effective public health strategy to identify and cure TB patients.

According to WHO estimates, 490 000 cases of multidrug-resistant TB (MDR-TB) and 40 000 cases of extensively drug-resistant TB (XDR-TB) occur every year. MDR-TB is resistant to the most important first-line TB drugs, while XDR-TB is resistant to first- and second-line drugs. 12 out of the 14 countries most affected by MDR-TB are found in the WHO European region.

(WHO, 2011, (a))

## Hepatitis A

Hepatitis A is caused by the hepatitis A virus (HAV) and occurs worldwide.

While children rarely have symptoms, adults usually have symptoms like jaundice, fever, loss of appetite, nausea, vomiting etc. No specific treatment is available and patients recover spontaneously. An effective vaccine is available.

HAV is transmitted from faeces of infected patients, either by person-to-person contact or by consumption of contaminated food or water. Sexual transmission among men who have sex with men may also occur.

(ECDC, 2005-2011)

## Access to health care services

Apart from living and working conditions, actual or perceived barriers to health care services, including prevention, testing, and treatment of diseases, may enhance migrants' vulnerability to infectious diseases. Access to health care services for migrants in their destination countries is strongly dependent upon their legal status and on the policies and practices of the host country. While permanent migrants often have better access to health care than temporary migrants, irregular migrants tend to suffer from a very restricted access (UNDP, 2009). In the EU, most countries provide full equality in terms of health care to immigrants with permanent residency status. However undocumented migrants without health insurance do generally only have the right to provision of emergency and medically necessary health care (Huber et al., 2008).

In Russia, most labour migrants have restricted access to health care as most of them are without residence or work permits, and hence live in conditions of illegality (IOM, 2002). One study claims that 80 percent of all migrants in Russia lack access to healthcare (Marat, 2009). In a study of irregular Tajik labour migrants in Russia, most of the migrants did not have medical insurance due to their illegal status and this was found to hinder them in visiting doctors (Olimova & Bosc, 2003). As illegal migrants do not have access to medical services, very few get tested for infectious diseases, such as HIV/AIDS and do not receive any preventative health care (Weine et al., 2008). Further, even if they were able to access health care, irregular migrants in Russia have good reason not to get tested for HIV as a positive status implies deportation by law (Buckley, 2009). This restricted access to medical care makes illegal migrants more likely to spread infectious diseases, either to acquaintances in the host community or to families and others in the place of origin.

Even in cases where immigrants have the right to access healthcare services, migrants often fail to take advantage of the services available due to individual, socio-cultural, economic, administrative and political barriers (Dias, Severo, & Barros, 2008). Migrants might simply not be aware of their entitlements to health care (Davies et al., 2006), the process of obtaining residency and health insurance papers can be too complex, or the cost of health care may simply constitute a too high barrier to healthcare access (Huber

et al., 2008). In addition, health care services may not be adapted to migrants' special needs in terms of language and culture, which may deter migrants from seeking care (Barnett et al., 2009; Huber et al., 2008). Further, depending on the migrant community or network, culture, religion, beliefs and traditions concerning health and disease prevention, and limited knowledge about available health services, may prevent utilisation of health care services (Barnett et al., 2009).

## Migrants' vulnerability to sexually transmitted and blood-borne infections

While the conditions surrounding the migration process contribute to migrants' vulnerability to infectious diseases, the transmission of sexually transmitted and blood-borne infections (HIV, STDs, hepatitis B and C) requires in addition more intimate contacts (see fact box 2). It is thus imperative to understand how the migration process can lead to *behavioural* changes increasing migrants' vulnerability to communicable diseases through risk taking behaviours, such as unprotected sex with multiple partners or sharing of needles while injecting drugs (Yang, 2004). Migrants must adapt to new socio-economic roles, reduced social control and different social contexts, while at the same time maintaining obligations to members of their network far away. This new context often lead to attitudinal and behavioural changes among migrants, which may elevate their risk of infections transmitted through intimate contact (Buckley, 2007).

Migration has been linked with enhanced risk of HIV and other STD infections, for both men and women and across a number of socio-economic settings (UNAIDS/IOM, 1998 in Buckley, 2007). Several studies have found relatively higher prevalence rates of HIV among international immigrant populations than among natives (Carballo, 2009), and in some western European countries, the prevalence of other STDs has been found to be higher among migrants than non-migrants (Smacchia et al. 2000 in Soskolne & Shtarkshall, 2002; De Muynck, 1997 in Carballo & Mboup, 2005). Also in several developing countries, particularly in Africa and Asia, the HIV prevalence among rural-urban labour migrants has been found to be significantly higher than among non-migrant populations (China: Yang, 2004; He et al. 2005; Sub-Saharan Africa: Basset, 1992; Pison et al. 1993; Quin, 1994; Decosas et al. 1995; Nunn et al. 1995; Jochelson et al., 1999; Lurie, 2000 in Kahn et al., 2003). Hepatitis B (HBV) is another infection

transmitted sexually, which is much more prevalent among immigrants than among natives in many European countries (Barnett et al. 2009).

**Fact box 2**- HIV/AIDS, Hepatitis A and B and other sexually transmitted diseases

### Human immunodeficiency virus (HIV) / Acquired immunodeficiency syndrome (AIDS)

According to WHO and UNAIDS estimates, 33.4 million people were living with HIV in 2008. In the WHO European Region, an estimated 2.4 million people have HIV.

HIV infects cells of the immune system, destroying their functions, thus preventing the system in fighting infection and disease. AIDS defines the most advanced stages of HIV infection, defined by the occurrence of any or more than 20 opportunistic infections or HIV-related cancer.

HIV can be transmitted through unprotected sexual intercourse (vaginal or anal) or oral sex with an infected person; transfusions of contaminated blood; and the sharing of contaminated needles, syringes or other sharp instruments. It can also be transmitted between a mother and her baby during pregnancy, childbirth and breastfeeding.

(WHO/Europe, 2011, (a))

### Hepatitis B

Hepatitis B is a potentially life-threatening infection caused by the hepatitis B virus (HBV). It is a major global health problem and in 2008 an estimated 2 billion people were infected. HBV infected people are at higher risk of liver cirrhosis and liver cancer.

HBV is 50 to 100 times more infectious than HIV. It is transmitted through sexual contact, mother-to-child transmission at birth, parenteral (through the skin or a vein) or through infected bodily fluids.

HBV is preventable with a safe and effective vaccine.

(WHO, 2011, (b))

### Hepatitis C

Hepatitis C is caused by the hepatitis C virus and is a major cause of acute hepatitis and chronic liver disease. An estimated 130 – 170 million people were infected by HCV in 2011.

The virus is usually transmitted through exposure to infected blood and less commonly through sexual contact. The major causes of HCV infection worldwide are use of unscreened blood transfusions and re-use of unsterilized needles and syringes or by sharing of needles and syringes among injecting drug users.

No vaccine against HCV is available, but the disease can be treated successfully with antiviral treatment.

(WHO, 2011, (b))

**Sexually transmitted diseases (STDs)**

STDs are a major global cause of acute illness, infertility, long-term disability and death. Every year, 448 million new cases of curable sexually transmitted infections (STIs) (syphilis, gonorrhoea, chlamydia and trichomoniasis) occur worldwide.

Sexually transmitted infections are spread primarily through person-to-person sexual contact. Some (HIV, syphilis) can also be transmitted from mother to child.

STDs are caused by more than 30 different bacteria, viruses and parasites (including HIV and HBV). Some exist without symptoms, such as gonococcal and chlamydial infections, however all infections can lead to critical implications for reproductive, maternal and newborn health.

The presence of untreated STIs increase the risk of both acquisition and transmission of HIV and controlling STIs is thus important for preventing HIV infection.

(WHO, 2011, (b))

Some studies claim that migrants' risk taking behaviour can be explained by the selectivity of the migration process, i.e. that migrants are inherently more or less prone to risk taking behaviour. When negative selection occurs, it entails that migrants have certain "risk-taking" characteristics making them more vulnerable to infections (Rachlis et al., 2007). One such negative predisposing "risk-taking" characteristic can be that migrants often are young with low levels of education, which may make them more likely to have multiple sexual partnerships, not be aware of risks and be susceptible to drug abuse (Brockerhoff & Biddlecom, 1999; Yang, 2004; Yang et al., 2005 in Rachlis et al., 2007). Drug use may increase vulnerability to infections, through unprotected sex or injections (Rachlis et al., 2007). On the other hand, positive selection may make migrants less vulnerable to infections. Migrants may for example be more aware of disease risks than non-migrants and thus behave more carefully. This has been found to be the case among some migrants in South Africa, Zimbabwe and China where the migrants were more aware of HIV-risks than natives and thus behaved relatively more carefully (South Africa: Collinson et al., 2006; Zimbabwe: Mundandi et al., 2006; China: Yang & Xia, 2008 in Sevoyan & Agadjanian, 2010).

However, most studies investigating migrants' vulnerability to sexually transmitted or blood-borne diseases, links the process and challenges of migration to behavioural changes among migrants. The adaptation choices may in turn have direct or indirect implications for risks of infections.

Yang (2004) argues that there are two processes connected with migration that drive behavioural changes increasing risk of STD/HIV infection among migrants. The first is explained by the social dynamics of migration. Many individuals migrate alone, especially temporary labour migrants, and the separation from families and spouses creates sexual frustration, loneliness and isolation. These feelings may in turn make migrants more likely to engage in high-risk sexual relationships or/and to abuse alcohol or drugs to reduce the feeling of loneliness (Africa: Hunt, 1989; South Africa: Jochelson et al., 1991; Sub-Sahara Africa: Caldwell et al., 1997; Thailand: Maticka-Tyndale et al., 1997; Kenya: Brockerhoff and Biddlecom, 1999, in Yang, 2004). In the former Soviet Union countries, high-risk sexual and drug behaviour has in many studies been found to be common among temporary male labour migrants who travel without family or partners. According to Buckley (2007), migrants within the former Soviet Union often seek to reduce the stress associated with resettlement by using drugs and alcohol, "behaviours that impede responsible decision making at best, and directly expose migrants to HIV infection at worst" (p. 10). In a study of Tajik male labour migrants in Moscow working at construction cites or at bazaars, the migrants' were found to be at high risk of HIV infection as they frequently engaged in unprotected sexual contact with local commercial sex workers, often accompanied by alcohol use (Weine et al., 2008). Another study of Tajik seasonal labour migrants found loneliness to be a reason for engaging in extra-marital sexual contact (Olimova & Bosc, 2003).

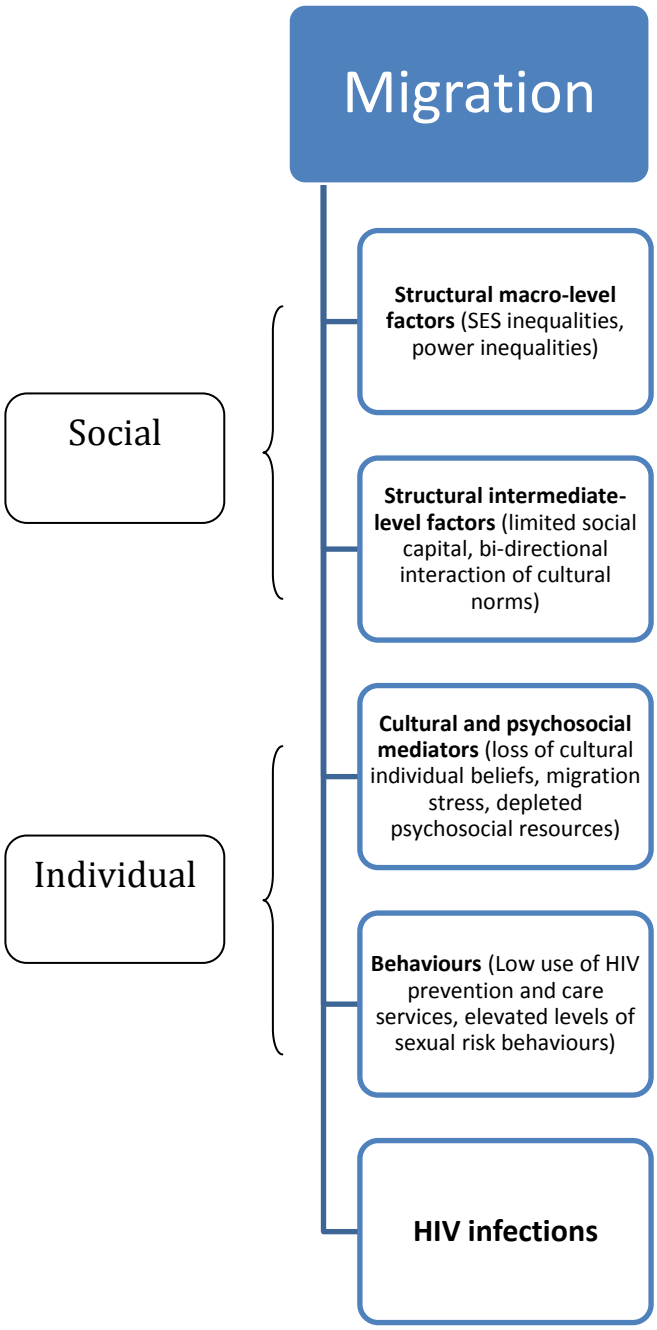
The second reason for behavioural changes among migrants is according to Yang (2004), migrants' more anonymous existence in the host society. The feeling of anonymity is often associated with an absence of usual normative and social control, which may encourage migrants to adapt risk-behaviours (Africa: Konde-Lule, 1991; Thailand: Maticka-Tyndale et al., 1997; China: Yang 2000, in Yang, 2004). One study undertaken in India found that decreased social monitoring and control increased migrants' likelihood of being involved with commercial sex (Mishra, 2004 in Buckley, 2007).

Migrants' risk behaviour in the destination country may also be associated with the social conditions arising from the migration process. According to Soskolne & Shtarkshall (2002) HIV risk-behaviour must not be conceptualised only as an individual risk, but must be embedded in an analysis of factors at both the structural and individual

levels (see fig. 1). The relationship between structural- and individual-level factors with migrants' HIV vulnerability was presented by the authors in a framework (see fig. 1 below).

In the framework, the structural determinants affecting migrants' risk taking behaviours are divided into factors at the "macro"- and "intermediate"-levels. At the macro level, low socio-economic status and limited power among migrants in host societies can be determinants of increased risk of HIV transmission. Migrant women are considered particularly vulnerable to the association among poverty, low social power and HIV as women often experience economic dependency and "unfavourable distribution of power in gender roles and sexual relations" (Soskolne & Shtarkshall, 2002, p. 1299). Decosas et al., (1995) also argue that female migration is more likely to spread HIV due to transactional sex (in Sevoyan & Agadjanian, 2010).

**Figure 1** – Framework of the association between migration and HIV infections




(Soskolne, V. & Shtarkshall, R.A. (2002). Migration and HIV prevention programmes: linking structural factors, culture, and individual behaviour - an Israeli experience. *Social Science & Medicine, 55* (8), 1297-1307.)

At the intermediate level, lack of social capital[8] and diverging cultural norms are identified as factors influencing migrants' HIV risk behaviour. Low socio-economic status, limited power and disruptions of traditional social systems, might lead to social exclusion and reduced social capital, which may negatively affect health status (Hawe & Shiell, 2000; Kawachi & Berkman, 2000 in Soskolne & Shtarkshall, 2002). In addition, migrants may adopt risk taking behaviours if they continue to retain their cultural norms without acquiring the prevailing social and cultural norms in the new society. In the US, Mexican migrants were found to be at high risk of infection by blood borne diseases due to needle sharing. The reason was that the migrants were used to self-administer therapeutic injections when they were ill and continued this practice while in the US. However, as the migrants were not able to access clean syringes as easily in the US as in Mexico, sharing of syringes became more common, also between people injecting medicines and illegal drugs (Organista et al., 2004 in Rachlis et al., 2007).

The influence of structural factors upon migrants' HIV risk behaviour, are mediated by individual-level factors, and determined by the cultural and psychological context of migration. When migrants experience notable cultural losses and feel unrelated to the new host culture, they may also feel excluded from services provided in the new society. This may in turn create stress, confusion and resistance to change that can turn into "risky health and sexual behaviour" (Soskolne & Shtarkshall, 2002, p. 1299). Stress and psychosocial challenges related to the migration process that are not effectively dealt with due to limited access to social capital and social/health services, can also lead to unhealthy behaviours.

Finally, the behaviours identified by Soskolne & Shtarkshall (2002) that enhance migrants' exposure to HIV are low use of health care and prevention services and sexual risk behaviour. Injecting drug use is however also a risk factor for acquiring blood borne infections. Migrants' often limited access to health care services have been discussed earlier in relation to general infectious diseases. However, limited access to prevention services or testing may also directly enhance migrants' vulnerability to sexually transmitted infections. In addition, limited access to medical services may entail difficulties in obtaining clean syringes, which in turn makes sharing of needles more

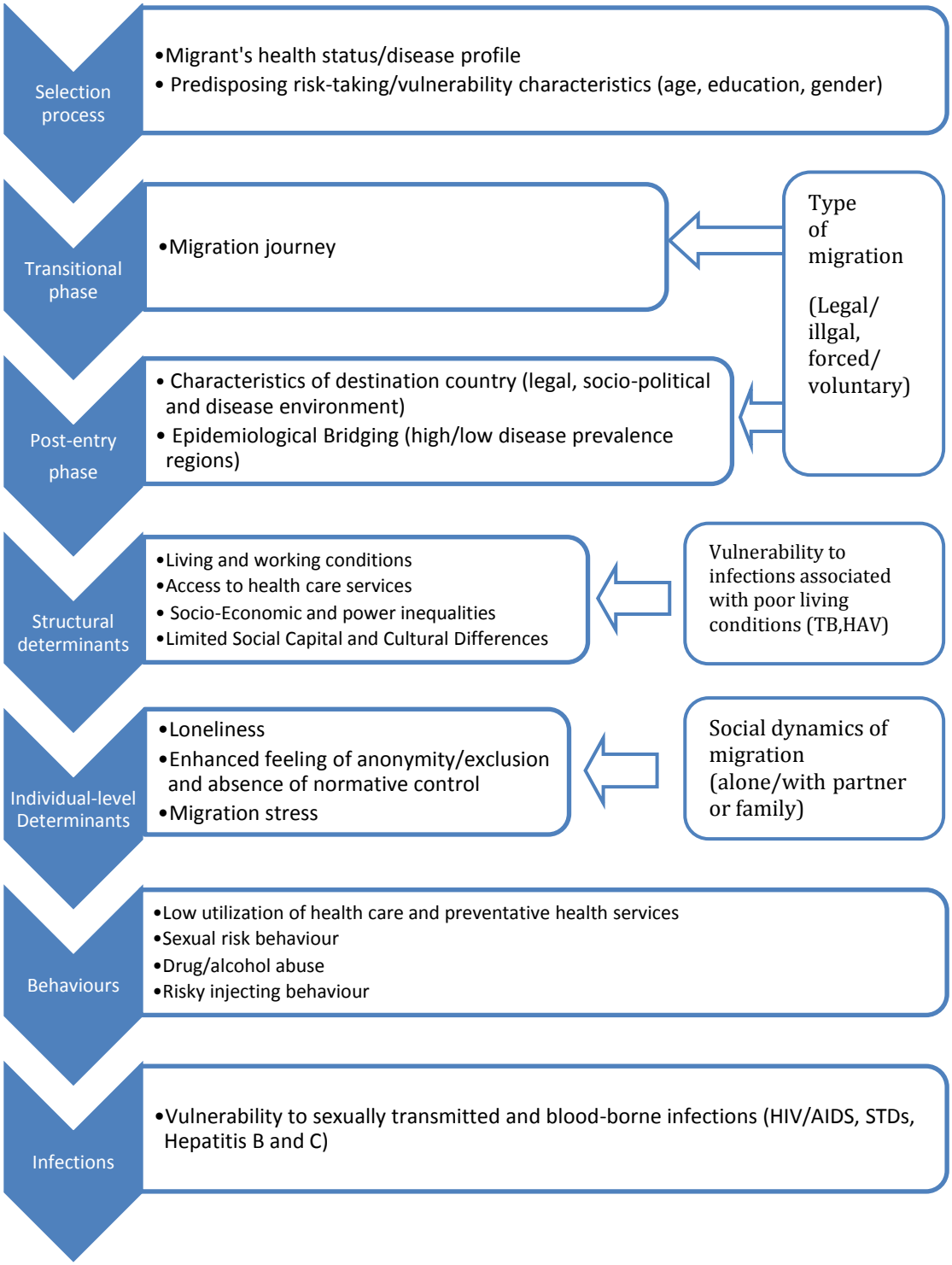
[8] "Social capital (…) refers to available resources (capital) that can accrue to people by virtue of their mutual acquaintances and recognition (social) and that can be used for a variety of productive activities (capital)" (Macinko & Starfield in Soskolne, 2007, p. 58).

likely among drug users. This is particular relevant among irregular migrants who may avoid contacting medical services or pharmacies for clean syringes in fear of getting caught by the police (Rachlis et al., 2007).

Thus, the above discussion highlights that migrants' exposure to HIV are mediated by structural factors in addition to the psychosocial context and social dynamics of the migration experience. In addition to these contextual factors, migrants may have certain predisposing characteristics that influence the extent to which they are exposed to risk behaviours, such as age, gender and educational level.

In order to provide an answer to the first part of the research question, namely under which conditions international migration affects migrants' vulnerability to infectious diseases during migration, a whole range of social and individual level determinants, in addition to the selectivity and characteristics of the migration process itself must be considered. The link between international migration and disease transmission is mediated by the diversification and dynamics of the migration streams and by the socio-economic and political structural factors in the destination country. These determinants may influence disease exposure directly or indirectly through risk-behaviours. In order to illustrate how the relationships between international migration and vulnerability to infectious diseases can be so complex, yet observed across some key areas of potential vulnerability along the different stages of migration, a new framework has been developed. This framework helps to clearly demonstrate the interconnectedness of the conditions surrounding the migration process and migrants' vulnerability, not only to HIV but also to other infectious diseases such as STDs, hepatitis and tuberculosis along the different stages of migration (see fig. 2). The framework draws upon literature discussed throughout the literature review.

**Figure 2 -** Framework of the association between migration and vulnerability to infectious diseases



The second part of the research question is concerned with under which conditions return migration is affecting migrants' non-migrating family members' vulnerability to infectious diseases. The absence of a family member due to migration may have important negative or positive effects on family members' health during the migrant's absence for example through financial and social remittances[9] or through social disruptions in family configurations (Hildebrandt & McKenzie, 2005; Salah, 2008; Buckley, 2009). However, as this study is concerned with health in terms of infectious diseases, the review will concentrate mostly on the effects on health caused by the proximity of the migrant, i.e. the direct relational effects. The next section will as such first briefly review how international migration may indirectly affect the health of families left behind during the migration period, and then secondly how the return of migrants directly affect the vulnerability to infectious diseases among family members left behind.

## Migration and the health of families left behind

Investigations of health consequences of migration upon left-behind households are equally complicated as research on migrants' health, given the fact that migration is not a random process. As such, shared genetics or behavioural characteristics between the migrant and the left-behind family members may influence their predisposition to either good or bad health as a result of migration (Kuhn, Everett & Silvey 2011). The separation between positive and negative effects from migration upon health outcomes among family members left behind is also further complicated by the multidimensional relation between migration and health as discussed in the case of migrants' health.

Nevertheless, despite methodological complications, several positive health effects of migration upon left behind families have been identified in the literature. First of all, left-behind households benefit from international migration of a household member due to financial remittances sent back from the migrant. Whether the remittances are spent on investments (e.g. preventive health care) or consumption (purchase of nutritious food),

[9] "Social remittances are the ideas, behaviours, identities and social capital that flow from receiving – to sending - country communities", (Levitt, 1998, p. 926).

research has found that it can lead to positive health gains for the receiving families (Siegel, 2010).

Apart from financial remittances enhancing the wealth of migrant sending households, social remittances in the form of improved health knowledge can also have a positive impact on the health of those left behind. Hildebrandt and McKenzie (2005) found that the improvement in infant mortality and infant birth weight was associated with increased wealth due to financial remittances, but also with improved health knowledge on the part of mothers (Hildebrandt & McKenzie, 2005).

However, migration may equally have a negative influence on the health of migrant sending households. Migration of one or more household members may for example lead to reconfigurations of gender roles and redistribution of responsibilities within the family, which may incur various forms of health risks to the different household members left behind. The extent and nature to which these changes occur depend on which household member migrates (Salah, 2008; Buckley, 2009).

In the case of female-migration, left-behind children have been found to suffer more in terms of lack of care than in the case of male-migration. This may have adverse effects on children's health in terms of deteriorating nutrition and lack of preventive health care (Salah, 2008; Hildebrandt & McKenzie, 2005). Absence of parental supervision combined with peer pressure can also encourage children to adopt unhealthy risk behaviours, such as smoking, alcohol and drug consumption and unprotected sex (Salah, 2008; Tolstokorova, 2010). Buckley argues that parental-migration may also influence the communication between parents and children about issues related to sexual and reproductive health, which may affect children's vulnerability to sexually transmitted diseases in the long run (Buckley, 2009). In societies where sexual health remains very gender specific, implying that mothers talk with their daughters and fathers with their sons about sexual and reproductive health, sons' or daughters' sexual health education might be neglected depending on which parent that migrate (Buckley, 2009).

The effects of male migration upon the health of left-behind wives have also been given some attention in the literature, especially in terms of sexual health (Buckely, 2009; Sevoyan & Agadjanian, 2010). In the absence of a spouse, women can in many societies

be more vulnerable to exploitation, economically or sexually, which may put her own health at risk (Buckley, 2009). However, women may also make conscious choices in the absence of her husband that adversely affects her health. For example, by prioritising her children's health over her own in terms of health care expenditure, she may suffer adverse health consequences. Further, women may seek additional sexual partners during her partner's migration, which can increase her chances of becoming infected by STDs (Buckley, 2009).

### Direct health risks associated with return of migrants

Thus, as seen, migration may have important negative and positive indirect effects on the health of families left behind during the migration period. However, the migration experience may also pose direct health threats to family members left behind, not through behavioural changes or increased access to resources, but through direct exposure to the returned migrant. As migrants return home from abroad, they may act as "bridge populations" transferring infectious diseases from high-risk populations to low-risk populations, such as their own families or partners (Morris et al., 1996 in Soskolne & Shtarkshall, 2002). The transferred health risks are then caused by the proximity of the migrant or by the direct relational effects of the migrant's presence.

Low education levels and lack of knowledge about STDs and other infectious diseases among migrants is a factor that may facilitate disease transmission from migrants to families at home. As many migrants are not aware of the risk of infections or do not know how to protect themselves or to get treated, they transfer their own enhanced risk of infections to their families at home as they return. Even when migrants are aware of disease risks, limited access to medical and preventative services in the host country makes them potential communicators of infections between the host society and their place of origin (Marat, 2009). Stigma associated with many infectious diseases, such as HIV, also affects the risk of transmission as many migrants avoid testing in order not to be stigmatised and excluded from their home community when they return (Weine et al., 2008).

Most studies investigating the effect of migrants' return on the health of families left behind have looked at the effects of migration on the risk of STD/HIV infections among

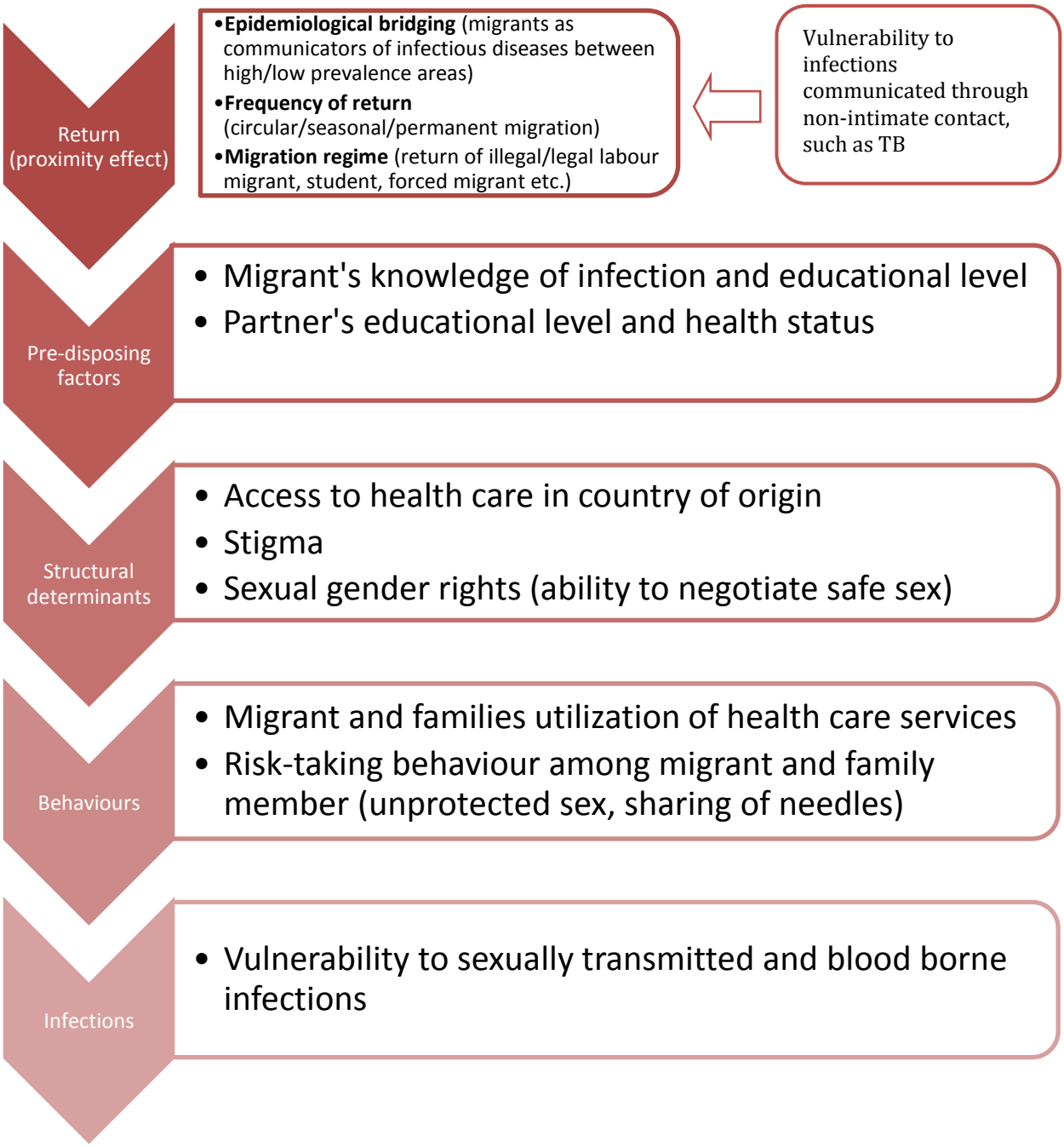
wives left behind (Kishamawe et al., 2006; Lurie et al. 2002; Morris et al, 1996; Sevoyan & Agadjanian, 2010). According to Sevoyan and Agadjanian (2010), the effect on women's STD/HIV vulnerability resulting from partners' migration is debatable. Some studies do not find any strong association between women's HIV status and their partners' migration (Lurie et al., 2002). However, other studies have found that left-behind wives' vulnerability to STDs and HIV increases due to her migrant partner's high-risk sexual behaviour while away and her inability to negotiate safe sex at his return (Campell & Williams, 1999; Gupta, 2000; Hughes et al., 2006 in Sevoyan & Agadjanian, 2010). Increased prevalence of HIV has for example been found among wives of male Tajik labour migrants following their return home (Rafiev et al., 2006 in Amirkhanian et al., 2010) and women married to migrants in Armenia were found to show more STD symptoms and were more likely to be diagnosed with STDs than wives of non-migrants (Sevoyan & Agadjanian, 2010). The latter study found migrant-wives' likelihood of being infected by a STD to increase with the length of stay abroad by the husband and by his income, but to decrease by her level of education suggesting that better knowledge about sexual risks increases the ability to negotiate safe sex (Sevoyan & Agadjanian, 2010).

Inability to negotiate safe sex is in fact one of the reasons why women are particularly vulnerable to infections transmitted by their migrant husbands. As Buckley (2007) notes: "When temporary male migrants return home, they transfer their elevated risk to female spouses and partners, who due to cultural norms, economic dependence, and social practices are unlikely to question male fidelity, or initiate condom negotiation" (p. 11). This inability to argue for the use of protection thus enhances women's vulnerability to STD infections. While education and knowledge about sexual risks may enhance the ability to negotiate safe sex somewhat, migration and hence separation from the husband, may in turn exacerbate the inability further. In a study from South Africa, wives felt less comfortable about discussing STDs/HIV and contraception with their partners after they returned after long times of separation than before they left (Hughes et al. 2006 in Sevoyan & Agadjanian, 2010).

Thus**,** migrants' enhanced vulnerability to many infectious diseases due to the context and characteristics of the migration experience, may be directly transmitted to their partners or family members in the place of origin when they return. A continuation of

the previous framework (fig. 2) demonstrating the factors influencing the transmission of migrant's infections to families left-behind can be found below (fig. 3).

**Figure 3** - Framework for the association between return migration and vulnerability to infectious diseases among families left-behind



## Conclusion

There is a large body of literature investigating the relationship between migration and infectious diseases and it is generally understood that migration has an important impact on the spread of communicable diseases, including sexually transmitted diseases and HIV. First of all, migrants act as epidemiological bridges between high and low prevalence areas/populations and may for example transmit risks from their own environment in the host society to family members in the home society. Further, the selectivity of the migration process, i.e. migrants' and migrant-families' predisposing characteristics, may affect their vulnerability to communicable diseases, either negatively or positively.

The migration experience is also often associated with structural determinants facilitating the spread of, and increasing the vulnerability towards, infectious diseases, such as lack of access to health care and social capital, poor working and living conditions etc. In the case of infections transmitted through risk behaviours, the patterns of migration and individual psychosocial characteristics are also determinants of migrants' likelihood of engaging in behaviour enhancing the risk of infections. When migrants return back to their place of origin, they may transmit their own enhanced risk of infections to their family members through direct exposure, such as sexual contact, with one another.

This chapter has reviewed the complexity of the relationship between international migration and infectious diseases and it has identified factors and conditions that contribute to migrants' vulnerability and exposure to infectious diseases as well as their risk of transferring these to families in the home country. In the next chapter, the vulnerability to infectious diseases among Georgian migrants and their families left behind in Georgia will be reviewed by investigating the migration patterns and the epidemiological context in the country.

# Chapter 2: International emigration and infectious diseases in the Republic of Georgia

International emigration has since the country's independence had a substantial impact on Georgian society. Unfavourable economic conditions and civil wars have driven hundreds of thousands of Georgians to seek a better life abroad, particularly in Russia and Ukraine. At the same time, Georgia has, as many of the former Soviet Republics, experienced rising epidemics of HIV/AIDS, STDs, tuberculosis and hepatitis A,B and C (Gotsadze et al., 2004; Buckley, 2005; Toungoussova et al., 2005; Stvilia et al., 2006; MoLHSA & NCDCPH, 2010). While the reasons for the epidemics are related to a disintegration of the health care system since independence, increasing prevalence of injecting drug use and poverty, international population movement has also been identified as an important factor in the spread of some of these infectious diseases within the region and in Georgia (Gotsadze et al., 2004; Buckley, 2005; Toungoussova et al., 2005). Little is however known about this latter relationship and this chapter will try to review relevant information which may highlight important connections between the substantial number of Georgians who migrate to other countries and the high prevalence levels of infectious diseases within the republic.

The first part of the chapter will provide an overview of the socio-economic developments in Georgia since independence, including the developments of the health care system. Secondly, the migration patterns in the country will be reviewed in order to identify trends and patterns that might make Georgian migrants and their families vulnerable to infectious diseases. Thirdly, the epidemiology of HIV/AIDS, STDs, TB and hepatitis A, B and C will be discussed in relation to international emigration and return to Georgia.

## Background

The Republic of Georgia, a country of about 4.3 million inhabitants and with a GNI per capita income of 2,530 USD, became independent from the Soviet Union in 1991 (WB, 2011). The country is located in the Southern Caucasus between the Black Sea and the Caspian Sea, and its borders are shared with the Russian Federation, Turkey, Armenia and Azerbaijan. Nine regions make up the country, in addition to the two autonomous republics of Abkhazia and Adjara. The region South Ossetia, called Shida Kartli or "Tskhinvali region" in Georgia (see fig. 4), has declared independence and is recognised by Russia. However, Georgia still considers the region as part of its territory and denies its independence. In 2008, a war between Georgia and Russia erupted over the disputed territory and the conflict still remains unresolved (De Waal, 2010).

**Figure 4** – Map of the Republic of Georgia

Following independence, Georgia experienced economic decline and political instability, like many of the former Soviet Republics. In the 1990s, the country suffered two civil wars with the regions of South Ossetia (1991-1992) and Abkhazia (1992-1994). These unfavourable developments lead to severe poverty and unemployment, a shattered economy and disruption of many national services, including the health care services. The civil wars did also result in large population migration in the 1990s, both internally and externally. (Tkeshelashvili-Kessler, del Rio, Nelson & Tsertsvadze, 2005). Internally, no less than about 273 000 people were displaced following the civil wars. Still in 2010, around 258 000 Georgians remained internally displaced, including around 20 000 people forcibly removed from South Ossetia during the war in 2008 (IDMC, 2010). Due to dire and overcrowded living conditions and poor sanitary and hygienic conditions in IDP camps, the internally displaced populations in Georgia have been found to be at high risk of HIV/AIDS, tuberculosis and sexually transmitted infections (Gulua, Gerzmava, & Vacharadze, 2010).

## Georgian Health Care system and management of infectious diseases

Failure of the Georgian health care system has partly contributed to the spread of communicable diseases in the republic. During the Soviet period, the Georgian health care system was part of the Soviet Semashko health care system. This implied universal access to health care free of charge at the point of use. It was a tax-financed and centrally-planned system from Moscow, focused on inpatient care and provided effective control of infectious diseases (Chanturidze, Ugulava, Durán, Ensor, & Richardson, 2009). Following independence in 1991 however, a sharp reduction in the government's resources meant an end to universal provision of health and reduced surveillance and control of communicable diseases. In addition, the administration and regulation of health care were greatly weakened, as the government had no experience with independent public management (Chanturidze et al., 2009). As a result, sanitary conditions in medical facilities deteriorated, there was a great lack of laboratory and diagnostic capacity and public immunization services came to a near halt (Gamkrelidze et al., 2002 in Chanturidze et al., 2009).

After several reforms of the health care system during the 1990s and early 2000s, a whole range of health care services in Georgia became privatised due the government's inability to finance the health sector sufficiently. The reforms have lead to high prevalence of formal and informal out-of-pocket payments (OOP), effectively excluding many of Georgia's poor citizens from accessing health care services (Gotsadze, Bennett, Ranson & Gzirishvili, 2005). According to the National Health Accounts of Georgia 2009, private expenditures of total health expenditure (THE) reached about 71 percent of which about 99 percent were OOP (NHA, 2009). This is far above the EU average of private expenditures, representing 16 percent of THE in 2008 and also considerably higher than the average in the Commonwealth of independent states (CIS) (36 percent in 2008) (WHO/Europe in Shengelia, 2010).

The high share of out-of-pocket payments makes less-well off families vulnerable to catastrophic health care costs, contributing to increasing impoverishment and worsening health status as health service utilization rates are reduced (Gotsadze et al., 2005). In fact, primary health care (PHC) utilization rates in Georgia are among the lowest in the WHO European region. From 1990 to 2000, the number of PHC visits per patient per year fell from 7-8 to 1.4. In 2007, the number of visits had increased to 1.95, which is still well below the EU average of 6.8 visits and also the CIS average of 8.7 visits (Chanturidze et al., 2009). According to Gotsadze et al. (2005), 11 percent of those falling sick in Georgia do not seek health care at all, and no less than 60.1 percent self-treat as this is a cheaper option than seeking professional care. Self-treatment is a significant problem within Georgia as it is contributing to development of drug resistance within the population, especially to anti-tuberculosis drugs (Kobaidze, Salakaia & Blumberg, 2009). This is partly due to weak enforcement of pharmaceutical regulations, enabling people to freely purchase even prescription drugs in pharmacies (Gamkrelidze et al., 2005 in Gotsadze et al., 2005). According to the head of the health department of the Georgia Red Cross Society, self-treatment of tuberculosis is still ongoing despite universal free access to TB treatment. One of the reasons for this may be that people are not aware that non-adherence to a strict TB treatment regime may cause drug-resistance. Further, they may avoid seeking care in fear of being stigmatised due to their positive status (Head of the Health Department, Georgia Red Cross Society, Personal Communication, May 31, 2011).

Limited health-knowledge within the population may be partly explained by low utilization of primary health care services, which generally provide information about reproductive health and preventative care. In fact, half of Georgian patients choose to visit outpatient clinics or hospitals, rather than primary health services, as their first contact point with the health care system (Chanturidze et al., 2009). This suggests that patients delay contact with the health care system until it is absolutely necessary and when the disease already have progressed to a serious stage. Thus, in addition to self-treatment, late case-detection and delayed treatment, clearly contribute to the spread of infectious diseases within the country.

As many Georgians never receive preventative health care due to financial barriers to health services, their knowledge about how to prevent infections, such as STIs or TB, may be limited. Considering that sex and healthy life-style education is not part of the school curricula, access to preventative information is effectively limited to public information campaigns by the mass media and harm-reduction activities by international and local organisations (Several interview participants, personal communication, May, 2011). According to many of the people interviewed for this study, the knowledge within the Georgian population about HIV, STDs and TB is improving, especially among targeted most-at-risk-groups (IDUs, CSWs, MSM). However, the level of knowledge is still not sufficient to ensure behavioural changes, and HIV knowledge is especially low as HIV/AIDS is the least common of the considered diseases.

Limited knowledge about the diseases upholds stigma towards people infected by TB or HIV/STDs, which in turn may hinder people in getting tested and receive treatment. According to representatives of the Georgian Red Cross Society and the TB centre, many TB infected people in Georgia do not want to get tested even if they are ill, in fear of losing their job due to stigma. It is not uncommon that employers in Georgia find a reason to fire employees whom they know have had, or have, tuberculosis. This naturally creates an important disincentive for getting diagnosed, as a positive result might effectively drive people into poverty (Head of Epidemiology Department, National Center for Tuberculosis and Lung Diseases & Deputy Head, Georgian Red Cross Society, Personal Communication, May, 2011).

Currently, healthy-lifestyle lectures containing information about drug use, reproductive health and HIV/STDs, are being planned implemented in Georgian schools across the

country as part of the sports and biology curricula for 9th graders (Chairperson, Bemoni Public Union & Head of Epidemiological Department, Georgian AIDS and Clinical Immunology Research Center, Personal Communication, May, 2011). This initiative will hopefully contribute to improved level of health knowledge within the population, enabling people to better protect themselves against infections.

## International emigration from Georgia

Apart from stigma, limited level of health-knowledge, poor socio-economic conditions, political instabilities and financial barriers to health service utilisation, international population movement from Georgia has also had an impact on the population's health. Since independence, armed conflicts and rising unemployment have resulted in large out-flows of migrants from Georgia. In fact, since 1989, the country has lost more than 20 percent of its population to emigration, representing nearly 1.1 million emigrants (World Bank, 2011; IOM, 2008).

During the first migration wave that lasted from 1990 to 1995, around 600 000 people fled the country from civil wars, mostly as refugees of ethnic minorities (CRRC, 2007). A large number of people were also internally displaced during this period. In the second wave of migration occurring between 1996 and 2004, most people leaving the country were Georgian labour migrants looking for work and better economic opportunities abroad. During this period, Georgia had one of the highest migration rates in the world (-5.6 per 1000 population) (CRRC, 2007).

Since 2004, less is known about emigration from Georgia. The period has been termed "Possible Revival" to describe increased return-migration and, according to the National Statistics Office of Georgia (Geostat), the republic was in 2010 a net-immigration country with a net migration rate of 18.1 per 1000 population (Geostat, 2011). However, this rate is questionable considering its conflict with other sources. According to the CIA's "The World Factbook" (2011), Georgia is still a net emigration country, with a net migration rate of -4.06 per 1000 population, including both regular and irregular migrants. Also the World Bank has identified Georgia as a net-emigration country with a total net migration of – 249 999 in the years between 2006 and 2010. This implies that

Georgia has lost about 250 000 people to migration during these four years (World Bank, 2011).

## Emigration patterns

### Destination countries

Traditionally, the Russian Federation has by far been the most popular destination country for Georgian emigrants due to the countries' close ties from the Soviet era and their cultural and geographic proximity. However, although Russia still hosts more than 500 000 Georgians, the flow of Georgian migrants to Russia has decreased dramatically over the last decade. This is partly explained by anti-Caucasian attitudes within the Russian population, but mostly due to the worsening relations between Georgia and Russia, culminating in a war in 2008 (Nazarova et al., 2009). In line with the hostile relation between the two countries, Russia has introduced a strict visa regime limiting the possibility for ethnic Georgians to enter legally. In 2006, the political hostilities resulted in expulsion of a number of Georgian migrants (IOM, 2008) and most migrants returning voluntarily to Georgia are now coming back from Russia (Tchaidze & Torosyan, 2010). According to data from the "Development on the Move: Measuring and Optimising Migration's Economic and Social Impacts in Georgia" project (Tchaidze & Torosyan, 2010), the share of returned migrants from Russia is 57.3 percent, i.e. higher than the share of Georgian immigrants currently in the country (36.5 percent), suggesting that the numbers of Georgian migrants in Russia is decreasing.

The difficulties entering Russia has made Ukraine an increasingly popular destination, in addition to Turkey, Western European countries and the United States (Tchaidze & Torosyan, 2010; IOM, 2008). The number of Georgian migrants in Western Europe is on the rise, as the proportion of absent migrants is higher than the number of returned migrants from the area (25.2 percent and 16.1 percent respectively) (Tchaidze & Torosyan, 2010). Italy and Greece are particularly popular destination countries among Georgian women, while the US, Russia and Ukraine attract most men. These differences are largely explained by the labour market opportunities in the different countries (Nazarova et al., 2009).

An overview of the estimated number of Georgian emigrants by countries of destination in 2007 can be found below (table 1).

**Table 1** – Estimates of Georgian emigrants by countries of destination, 2005

| Country | Number |
|---|---|
| **Russian Federation** | 643,372 |
| **Ukraine** | 94,111 |
| **Greece** | 62,174 |
| **Armenia** | 54,996 |
| **Israel** | 23,557 |
| **Germany** | 17,127 |
| **United States** | 12,480 |
| **Cyprus** | 10,162 |
| **Turkey** | 6,868 |
| **Latvia** | 5,155 |
| **Spain** | 3,665 |
| **Other countries** | 99,930 |
| **Total** | 1,024,598 |

(World Bank, 2007 in International Organization for Migration (IOM). (2008). *Migration in Georgia: A country Profile 2008.* Geneva, Switzerland).

### Purpose and nature of emigration

Most Georgian emigrants are labour migrants trying to improve their living standards by looking for work abroad. In a migration survey carried out in 2008 by Geostat, 75.5 percent of Georgian emigrants were found to have left for work and 62.2 percent of the returned migrants stated the same motivation for why they had migrated. The second and third most important reasons for emigrating were studies and reunification with family or marriage. Only 0.8 percent of the emigrants reported health as their motivation for emigrating (Geostat, 2009). This might imply that there is no considerate negative selection in terms of health among Georgian emigrants. Georgians also emigrate as refugees/asylum seekers, however in much smaller numbers than before. According to the United Nations High Commissioner for Refugees (UNHCR), there were only 870 Georgian refugees and 26 pending asylum claimants in 2009 (UNHCR, 2009).

Trafficking in persons from Georgia is still ongoing, although the reported numbers are low. Georgian victims of trafficking are mainly sent to Turkey and the United Arab Emirates. In 2008, IOM had assisted 15 Georgian victims of trafficking, of which a majority were found in Turkey (IOM, 2008).

### Duration of migration

During the first migration wave, emigration was mostly motivated by socio-political reasons and was thus more or less permanent. However, since then, migration from Georgia has changed mainly into temporary labour migration and the majority of migrants are away for less than a year at the time (Tchaidze & Torosyan, 2010). The reasons for return are many, but are often related to completion of the goal of emigration (enhanced income, completion of job etc.), family reasons and visa problems. Some are also deported or sent back from prisons abroad (Tchaidze & Torosyan, 2010). In 2007, more than 5000 Georgians were removed by force from Turkey, around 2000 from Russia and over 900 were sent back from Ukraine (Georgian Border Police, 2007 in IOM, 2008).

Even when migrants decide to return, it might not be permanently. Many stay in Georgia for a period of time before emigrating again. This is often termed "peddling migration", indicating migrants who repeatedly come and go again (Nazarova et al., 2009). As described by a Georgian male migrant returned from Russia; "People move, all of them return, but not forever. They stay for some period and leave again" (Tchaidze & Torosyan, 2010, p. 17). The travelling back and forth between Georgia and destination countries implies a potential for disease transmission from migrants to their families in Georgia. Especially in the case of return from high HIV/STD and tuberculosis prevalent countries, such as Russia and Ukraine (Buckley, 2004 in CRRC, 2007).

### Irregular migration

Since the second wave of migration, an overwhelming amount of Georgian emigrants have been irregular, motivated by economic opportunities abroad (IOM, 2008). The main destination country for irregular Georgian migrants is Russia where the estimated number of undocumented Georgian migrants is between 400 000 and 1 million. Other popular destination countries for Georgian irregular migrants are Greece, Germany and the US (IOM, 2008). While many enter their destination countries legally, a majority end up as irregular migrants either by overstaying their visas, working illegally under student visa or by entering a transit country legally and then travel without legal documents to the destination country (CRRC, 2007). Notably, about 80 percent of the irregular migrants heading for Western Europe are passing through Turkey, as Georgian nationals do not need a visa to enter the country (ICMPD, 2006 in IOM, 2008).

The irregular status of Georgian labour migrants enhances their vulnerability to exploitation and unhealthy working conditions. Those who are not able to obtain work-permits, usually work on the "black" labour market in informal low-paid and so-called "3D" jobs, namely the "dirty, difficult and dangerous" jobs (CIPDD, 2009, p. 3). In a study of labour migrants from Georgia, Azerbaijan and Armenia, migrants' right violations were found to be related to unofficial employment arrangements between migrants and their employers abroad. Among the Georgian respondents, more than half were employed on the basis of verbal agreement, effectively excluding them from social security and health insurance (Nazarova et al., 2009). The respondents also identified

human trafficking and sexual exploitation as a problem among some Georgian irregular migrants (Nazarova et al., 2009).

According to the same study, low levels of education and young age were also factors related to higher risk of rights abuses among Georgian labour migrants. The type of rights violations reported were over ten hours working days and in Turkey and Ukraine, more than six days work-weeks. In combination with cultural and linguistic differences, such intense work weeks limit the social mobility and acculturation of the migrants (Nazarova et al., 2009). Lack of social interaction and integration may strengthen feelings of loneliness, anonymity and create stress, all factors associated with risk-behaviours and vulnerability to sexually transmitted and blood-borne infections. Thus, harsh working conditions, lack of access to health services, vulnerability to different forms of exploitation, and limited integration may put the health of Georgian irregular migrants under considerable risk.

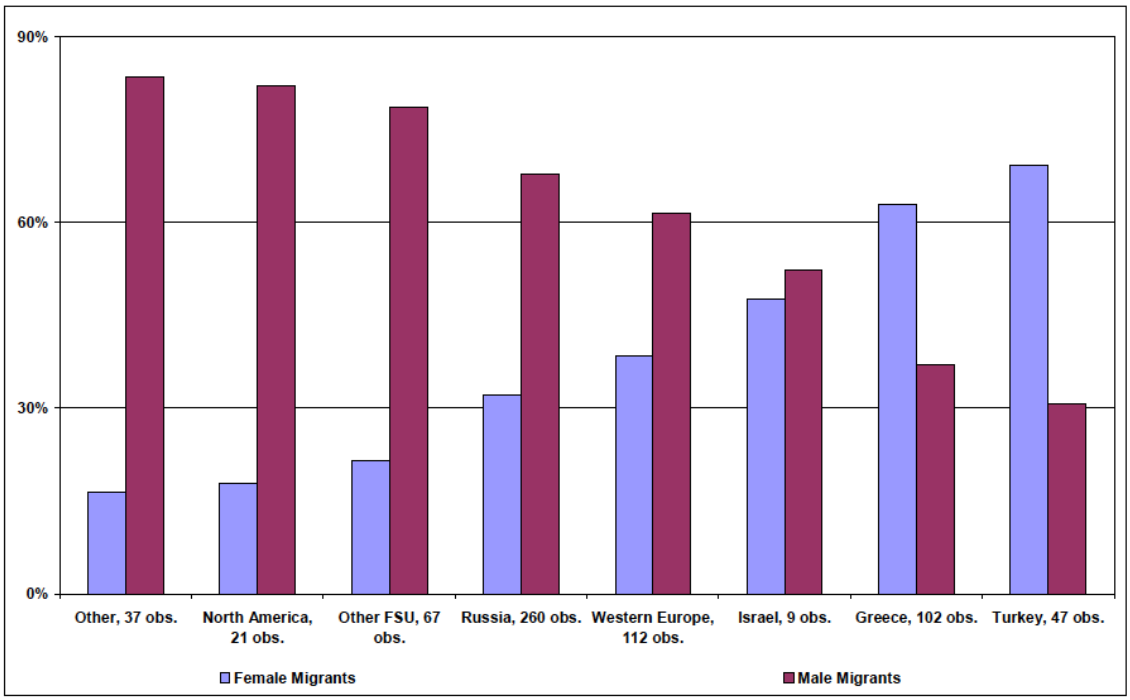
As discussed, the migration process is not random and hence migrants' pre-disposing characteristics, such as age and gender, also influences how their health is affected by the migration experience. The next section will look at the demographic characteristics of Georgian emigrants and how these might explain parts of Georgian migrants' vulnerability to infectious diseases abroad.

## Demographics of Georgian emigrants

The share of female labour migrants from Georgia has increased significantly over the last years, currently representing about 55 percent of the migrant population (Nazarova et al., 2009). As mentioned, most female migrants prefer Greece and Italy as their destination countries. The high demand for domestic work, such as baby-sitting and house-keeping in these countries, attract a lot of Georgian women (Tchaidze & Torosyan, 2010). In addition, some Georgian female migrants are working within the sex-industry, especially in Turkey and other FSU-countries. According to the Turkish embassy in Tbilisi, 80 percent of all Visa applicants in 2000 were women. Among these, among half (about 5600) were believed to be working in the entertainment sector in the border regions of Turkey. The rest were engaged in small-scale trade (IOM, 2002).

In contrast to the pattern of female migration from Georgia, most of the male labour migrants travel to Russia and other FSU-countries, where the majority work in the construction industry, often on a seasonal basis (Tchaidze & Torosyan, 2010; Shabanova, 1991 in Hofmann and Buckley, 2011). A distribution of destination countries by gender can be found in figure 5 below.

**Figure 5** - Gender distribution of absent migrants by destination (%)




(Tchaidze, R. & Torosyan,K. (2010). *Development on the Move: Measuring and Optimising Migration's Economic and Social Impacts in Georgia,* Global Development Network (GDN)).

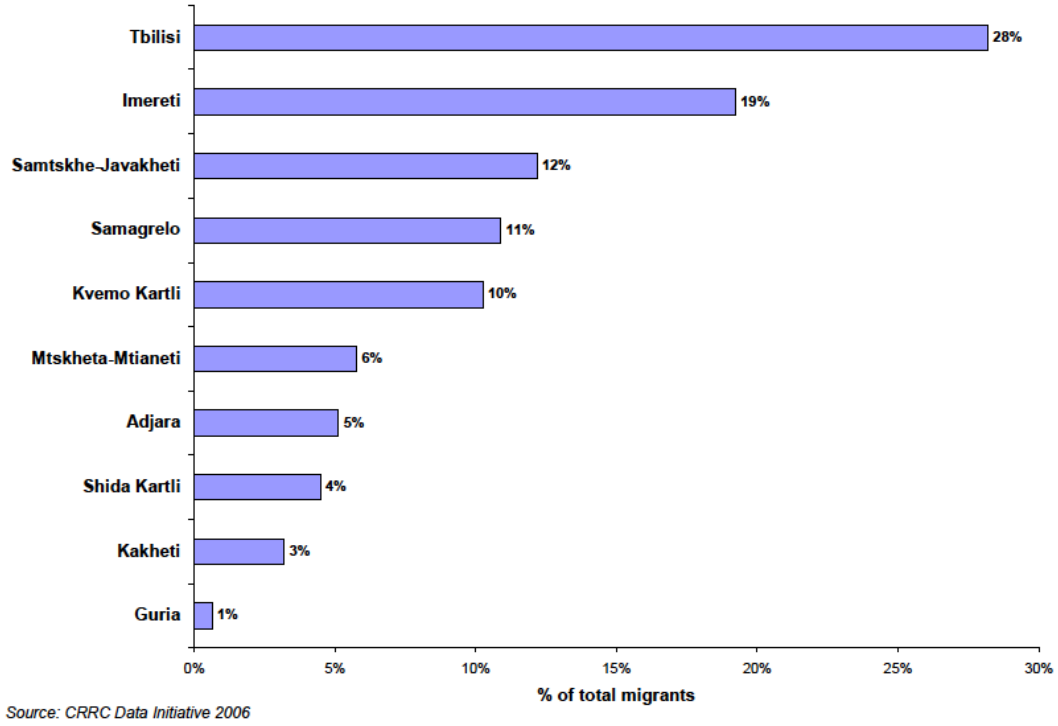
Georgian emigrants are not particularly young, with about 50 percent of both males and females in the age group of 25 to 45. While some studies find that males start to migrate somewhat earlier than women, (15 percent of male migrants are between 18 and 24 years while only 5 percent of women) (Tchaidze & Torosyan, 2010), the average ages for male and female Georgian migrants are more or less the same (38 for men and 41 for women) (Nazarova et al., 2009). Thus, migrant selection in terms of age should not have an important negative influence on migrants' risk behaviours abroad as most Georgian migrants are of adult age when migrating.

In terms the social dynamics of emigration, most Georgian migrants are married (65 percent of migrants abroad in 2010) and among these about 50 percent have left their spouse or partner back in Georgia, increasing the potential for disease transmission to families upon return (Tchaidze & Torosyan, 2010).

According to the IOM, most of Georgia's migrants tend to be educated with 44 percent of labour migrants possessing a university degree and 15 percent having a skilled profession (CRRC, 2007). The level of education visibly differs by country of destination; those with higher education tend to go to North America and Western Europe, while the majority of migrants going to FSU-countries and Israel, Greece and Turkey have completed secondary or technical education (Tchaidze & Torosyan, 2010).

Most Georgian emigrants come from urban areas, and the largest share migrates from the capital of Tbilisi (28 percent). However, about one third of migrants come from rural areas. The Imereti region in which Georgia's second largest city, Kutaisi, is found, is the second largest out-migration region, followed by the border-regions of Samtskhe-Javakheti, Samagrelo and Kvemo-Kartli (see fig. 6 below) (CRRC, 2007; Tchaidze & Torosyan, 2010).

**Figure 6** - Distribution of estimated external migration rates by region, 2006




(Caucasus Research Resource Centres (CRRC) – Georgia. (2007). *Migration and Return in Georgia: Trends, Assessments, and Potential.* A report submitted to the Danish Refugee Council. Tbilisi, Georgia).

## Discussion

Most Georgian emigrants are labour migrants working abroad in order to provide a living for themselves and their families. While many may improve their living standards, the characteristics of Georgia's migration patterns suggest that Georgian migrants and their families left behind may also be particularly vulnerable to health risks. First of all, many of Georgia's labour migrants are irregular. Their irregular status not only creates barriers to health care access in destination countries but also enhances vulnerability to various forms of exploitation and may lead to risk behaviours due to stress, loneliness and feelings of anonymity. Secondly, half of Georgia's labour migrants are women. Female migrants have been identified in the previous chapter as more vulnerable to sexual or other forms of exploitation abroad, and women working within the sex industry in HIV/STD prevalent countries are particularly at risk for infections.

The social dynamics of labour migration also suggest that many labour migrants may be vulnerable to sexual risk behaviour, as many married migrants leave their partners back in Georgia. This also suggests that their partners may be at risk of sexually transmitted infections as the migrants return.

The fact that the majority of Georgian migrants travel to Russia and Ukraine constitutes an important health risk to the migrants and to the Georgian society. Both Russia and Ukraine have higher prevalence/incidence levels of HIV, TB, Chlamydia, Syphilis and Hepatitis C than Georgia (see table 2 below). Migrants in these countries may thus be at higher risk of infections. In comparison, Georgian migrants in Turkey and Greece might be at lower risk of infections relative to in Georgia given the considerably lower prevalence/incidence levels of the diseases in these countries.

**Table 2** – HIV and TB prevalence in selected countries

| Country | HIV prevalence, % (ages 15-49) in 2009[10] | TB prevalence rate (per 100 000 pop) in 2010[11] | Chlamydia (2004) / Syphilis (2008) Incidence rates per 100 000 pop.[12] | Hepatitis C virus incidence (cases per 100 000 pop.), 2010 [13] |
|---|---|---|---|---|
| Georgia | **0.1** | **118** | **15.52 / 7.85** | **1.4** |
| Russia | **1.0** | **136** | **100.77 / 58.65** | **2.11** |
| Ukraine | **1.1** | **132** | **69.79 / 27.58** | **1.73** |
| Turkey | **< 0.1** | **24** | **0.22[14]/ 0.93** | **0.83** |
| Greece | **0.1** | **5.7** | **n.a. / 0.03[15]** | **0.02** |

[10] UNAIDS. (2009). *Country profiles*. Retrieved 25 September, 2011 from: http://www.unaids.org/en/regionscountries/countries/
[11] WHO. (2011), *Tuberculosis country profiles*. Retrieved 25 September, 2011 from: http://www.who.int/tb/country/data/profiles/en/index.html
[12] WHO/Europe. (2011). *Centralized information system for infectious diseases (CISID): Sexually Transmitted Infections.* Retrieved 28 December, 2011 from: http://data.euro.who.int/cisid/?TabID=279364
[13] Ibid
[14] 2005
[15] No data available/2001

Although there are many factors identified which may negatively affect the health of Georgian migrants and their families, some patterns of Georgian emigration are more positive in terms of health risks. First of all, most of Georgia's female labour migrants work in low disease prevalence countries, such as Greece, with occupations that are unlikely to be very hazardous for their health, such as baby-sitting. Secondly, Georgian migrants tend to be quite educated, which may entail that they also have better health knowledge and ability to protect themselves from various health risks.

The next section will review the epidemiology of and national response to HIV/AIDS, STDs, hepatitis and tuberculosis in Georgia and how the prevalence of these diseases may be connected with Georgian emigration patterns.

## Infectious diseases and international emigration from Georgia

As seen in the previous section, Georgian patterns of emigration may entail health risks for migrants and in turn for the Georgian society as migrants return. However, the relationship between the spread of infectious diseases and international migration in the country has so far received little attention and no previous research has investigated this relationship.

This section will first provide a general overview of the incidence of infectious diseases and how these are managed in the Georgian health care system. Secondly, the epidemiology of and the national response to HIV/AIDS, STDs, hepatitis and tuberculosis will be discussed in relation to the possible relationship between the spread of these diseases and international emigration from Georgia. The aim is to establish certain hypotheses about which conditions that make Georgian migrants and their families vulnerable to infectious diseases. These hypotheses will then be explored further during interviews with various health and migration experts in Georgia.

### Burden and management of communicable diseases

In general, the incidence and prevalence of infectious diseases is increasing in Georgia, and according to the Ministry of Labour, Health and Social Affairs (MoLSHA) and the National Centre for Disease Control and Public Health (NCDCPH), the number of new

cases of infectious and parasitic diseases in 2009 rose by 25.8 percent[16] (MoLHSA & NCDCPH, 2010).

The management of activities associated with prevention, control and surveillance of infectious diseases in Georgia is implemented through the state health programmes, such as the State Programme for Disease Prevention and the State Programme for Epidemiological Safety Assurance. The NCDCPH is responsible for overseeing all public health services in general, including immunization, surveillance, disease prevention, health promotion and the laboratory system for health services (Chanturidze et al., 2009).

Over the last years, general disease surveillance and immunization coverage have improved markedly in Georgia, partly as a result of donor assistance and partly as a result of the government's efforts in providing better-quality immunization and disease surveillance (Chanturidze et al., 2009). The NCDCPH is annually collecting data on infectious diseases from individual health care facilities across the country, both government or independently run. Out of all new cases of infectious and parasitic infections reported in 2009, more than one third was registered by rural doctors and ambulatories (MoLHSA & NCDCPH, 2010).

Despite renewed efforts in controlling the spread of infectious diseases since the break down of the health care system following independence, considerate barriers to effective surveillance and prevention still exist in Georgia. Lack of communication infrastructure and electricity in rural areas in addition to unreliable statistics from smaller health care facilities and independent providers, reduce the performance and reliability of the surveillance system and hence of the reported incidence and prevalence levels (Hotchkiss et al., 2006 in Chanturidze et al., 2009).

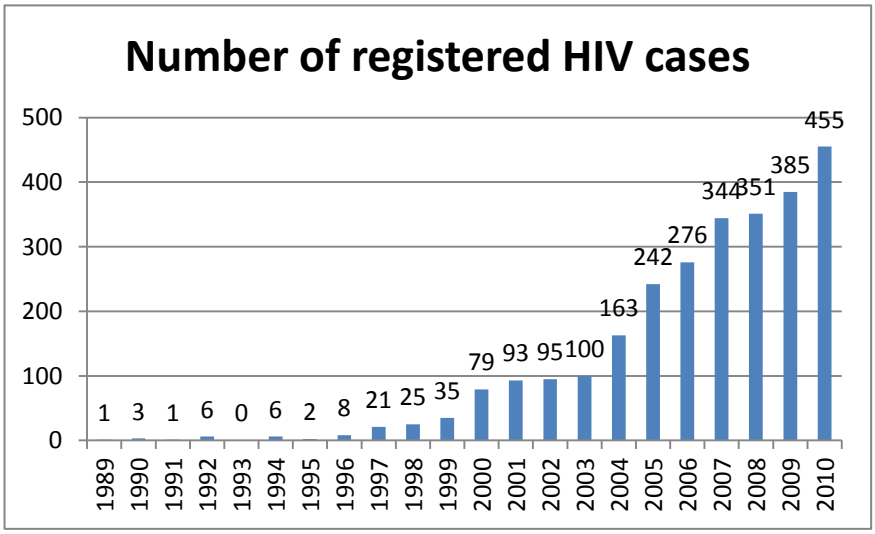
[16] Includes all registered new cases of infectious or parasitic infections in 2009.

## HIV/AIDS and Sexually Transmitted Infections

### HIV/AIDS epidemiology and national response

Georgia is categorised as a low HIV prevalence country with an estimated prevalence level of below 0.1 percent[17] (UNAIDS, 2009). Despite low prevalence, the potential for a rapid expansion of the HIV epidemic is considered high unless effective measures are taken. The first HIV case in Georgia was reported in 1989, and up until 2000 the number of cases detected grew slowly. However, between 2000 and 2006 the numbers increased rapidly as testing expanded due to international financing from the Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM) (Government of Georgia, 2010). Since 2007, the number of new cases has continued increasing, but at a slower pace. As of May 2011, a total of 2855 HIV/AIDS cases were registered[18] in Georgia (of which only 61 were foreigners, the rest were Georgian citizens) (AIDS center, 2011). However, the actual number of HIV infected people is believed to be much larger than the number of registered cases. According to the AIDS and Clinical Immunology Research Centre (2011) there is currently an estimated 4 500 people living with HIV/AIDS in Georgia.

**Figure 7** - Number of registered HIV cases in Georgia from 1989 to 2010



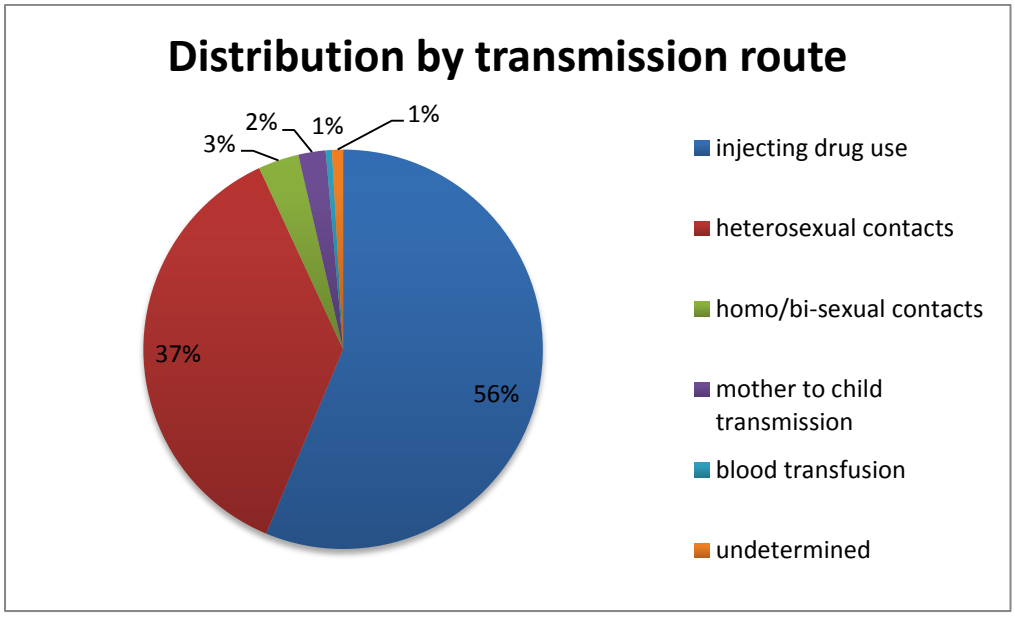

(AIDS & Clinical Immunology Research Centre (AIDS center). (2011). *Statistical Data on HIV/AIDS in Georgia*, Provided by the head of the Epidemiology Department, May, 2011).

[17] Adults aged 15-49 prevalence rate

[18] Registered HIV cases signifies the number of detected HIV cases in Georgia

The majority of people registered with HIV/AIDS in Georgia are between 29 and 35 years old. More men than women are infected and currently 2102 men are living with HIV/AIDS, compared to 753 women (AIDS center, 2011). While the HIV epidemic in Georgia used to reflect the general pattern of the epidemics in most of the former Soviet republics with injecting drug use being the major transmission mode, the pattern is slowly changing towards transmission from heterosexual intercourse suggesting a spread to the general population in Georgia. In 2011, 56.3 percent of infections were due to injecting drug use, while 36.8 percent were infected through heterosexual contact (AIDS center, 2011). In comparison, in 2005 the numbers were 70 percent and 24 percent respectively (Tkeshelashvili-Kessler et al. 2005). In 2011, homo-bisexual contact accounted for 3.3 percent of all registered infections, mother-to-child 2.2 percent and 0.5 percent were caused by blood infusion (fig. 8) (AIDS center, 2011).

**Figure 8** – Distribution of HIV/AIDS transmission route in Georgia, 2011




(AIDS & Clinical Immunology Research Centre (AIDS center). (2011). *Statistical Data on HIV/AIDS in Georgia*, Provided by the head of the Epidemiology Department, May, 2011).

Georgia's HIV/AIDS prevention and case control policy changed considerably after independence. During the Soviet period, mandatory mass screening of the population was performed in line with the strict epidemiological control performed by the Soviet health care system (Stvilia Todadze & Nizharadze, 2005). However, in 1993 Georgia joined the "Riga Declaration on HIV/AIDS in the countries of Central and Eastern

Europe" (Walter, 1995) and in 1995 a law on HIV/AIDS prevention was adopted ensuring voluntary and confidential testing[19]. Initially, it was envisaged that the law would impose mandatory screening of all individuals entering Georgia from a foreign country, including returning Georgian migrants. However, following the country's democratic reforms and removal of Soviet structures, the right for voluntary screening was upheld for everyone, also for immigrants and returning Georgians (Gotsadze et al., 2004).

Since 2006, national HIV/AIDS strategic plans have been developed every fifth year, and the responsibility for providing a national response to HIV/AIDS is today divided between various state institutions and agencies, including the MoLHSA, the Georgia Health and Social Projects Implementation Centre[20], the NCDCPH and the AIDS centre. The AIDS centre is the primary institution responsible for development, implementation and coordination of all activities against HIV/AIDS in Georgia and is the sole provider of AIDS treatment services, which are provided for free to all HIV/AIDS patients thanks to funding from the GFATM. In addition, testing and counselling is confidential and free of charge for people who have undertaken some sort of risk behaviour (Government of Georgia, 2010).

The AIDS centre is located in Tbilisi, but four centres are also operated in other large cities in the regions, namely in Kutaisi (Imereti), Batumi (Adjara), Zugdidi (Samegrelo) and the last in the conflict region of Abkhazia. The AIDS centres offer in- and outpatient services,[21] and in Tbilisi a laboratory department and an epidemiological division are found. In addition to these specialised clinical HIV/AIDS services, 44 voluntary counselling and testing (VCT) services are located across the country, an additional 10 VCT centres are found in prisons and 2 mobile laboratories are operated by the NGO Tanadagoma in Tbilisi, Kutaisi and Batumi targeting most at risk populations (MARPs) (Government of Georgia, 2010). Although the access to HIV/AIDS clinics and VCT centres in Georgia is generally good, most clinics are located in cities and people living in remote communities may still have difficulties in accessing VCT centres. Migrants

[19] Except for blood, organ and sperm donors (The Georgian law on HIV Infection/AIDS)
[20] Principle recipient of GFATM grants
[21] Abkhazia regional centre only offers outpatient services

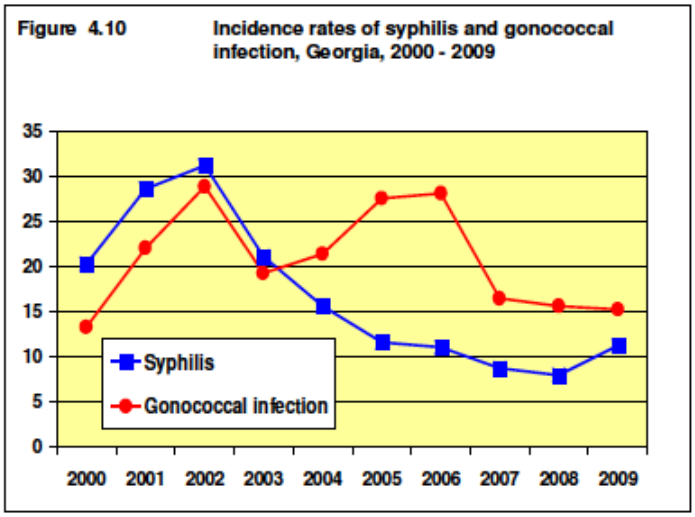
returning to their families and partners in communities in rural areas may as such be at higher risk of transmitting their enhanced HIV vulnerability to family members than migrants returning to the large cities where access to HIV testing and treatment is readily available.

The MARPs in Georgia are considered to be injecting drug users (IDUs), commercial sex workers (CSW), men having sex with men (MSM) and prisoners. These groups are targeted through wide scale prevention activities, such as harm reduction programs among IDUs, HIV preventive education programs among CSWs and establishment of health care cabinets providing integrated HIV/STI diagnostic and STI treatment services to CSWs and MSM. However HIV testing rates among these groups still remain low, especially among IDUs who are difficult to target due to their criminalised status (Government of Georgia, 2010). Although the first reported HIV cases were linked with Georgian migrants who had been travelling abroad, Georgian migrants are currently not treated as a risk group being targeted for testing and counselling in Georgia (Stvilia et al., 2005). However, there seems to be some attention to HIV vulnerability among migrants as there are plans to conduct a HIV vulnerability baseline study among labour migrants in the new Georgian HIV strategic plan for 2011-2016 (Government of Georgia, 2010). Whether this study is targeting foreign labour migrants within Georgia or Georgian labour migrants returning is nevertheless unclear.

### STDs epidemiology and national response

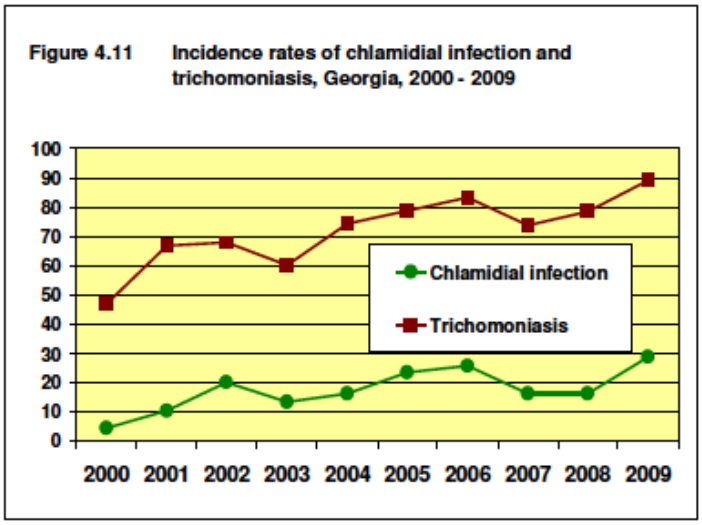
As in many of the former Soviet Union countries, sexually transmitted infections are prevalent in Georgia. This contributes to the HIV/AIDS epidemic (Tkeshelashvili-Kessler et al., 2005). According to the MoLHSA and the NCDCPH, the incidence of Chlamidial Infection and Trichomaniasis have increased steadily over the last decade and in 2009 the incidence rates were around 29 and 88 respectively (MoLHSA & NCDCPH, 2010). There has been a decreasing trend of syphilis in the same period, however between 2008 and 2009 the incidence rate rose again from about 8 to 11 percent. From 2006 to 2007, there was a clear drop in the incidence of Gonococcal infections, but since then the annual incidence rate has more or less stabilised (see fig. 9 and fig. 10).

**Figure 9** – Incidence rates of Syphilis and Gonococcal Infection in Georgia 2000-2009




(Ministry of Labour, Health and Social Affairs of Georgia (MoLHSA) & National Centre for Disease Control and Public Health (NCDCPH). (2010). *Health and Health Care: Statistical Yearbook, Georgia 2009)*

**Figure 10** – Incidence rates of Chlamidial Infection and Trichomaniasis in Georgia 2000 - 2009




(Ministry of Labour, Health and Social Affairs of Georgia (MoLHSA) & National Centre for Disease Control and Public Health (NCDCPH). (2010). *Health and Health Care: Statistical Yearbook, Georgia 2009)*

These data from the MoLHSA and the NCDCPH should be analysed with a certain caution, as the accuracy of STD statistics in Georgia is somewhat unreliable. According to Tkeshelashvili-Kessler et al., (2005), the STD passive reporting system in Georgia is improving, but it still suffers from underreporting and lack of accuracy partly due to old equipment, which reduces the quality of diagnosis. Imprecise diagnoses are particularly prevalent in smaller clinics in rural areas where there is a lack of human and technological capacity to perform sufficient testing. Unclear test results give room for a tendency of "hyper-diagnosing"; doctors tend to diagnose unclear tests as positive rather than negative in order to "solve" the patient's problem. This naturally creates data biased towards higher prevalence levels at the national level (Deputy Director in clinical field, Institute of Dermatology and Venereology, Personal Communication, June, 2011).

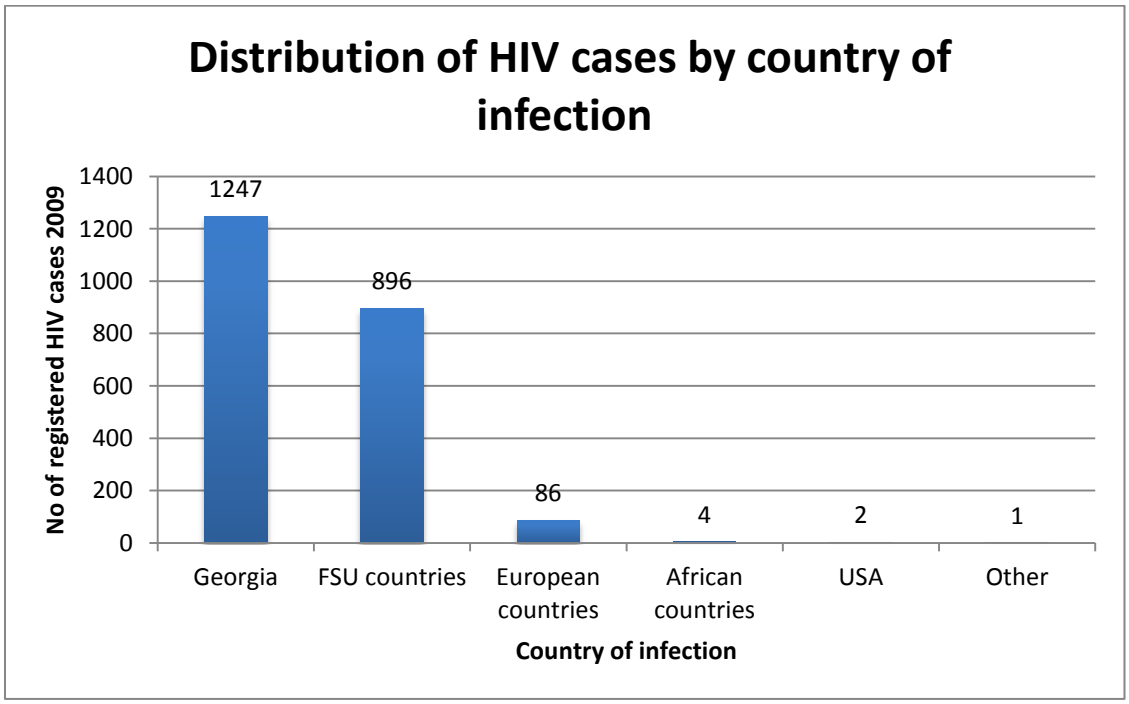
On the other hand, STDs statistics might also indicate *lower* prevalence levels than the reality. Sexually transmitted diseases remain, in contrast to with HIV/AIDS, under-prioritised by the Georgian government and by donors. This result in that neither testing nor treatment of STDs is funded. All costs are thus borne by the patients and for the poor this might entail a barrier to treatment. In addition, stigma is still associated with STDs and many are thus dreading to visit test clinics, especially women (Deputy Director in clinical field, Institute of Dermatology and Venereology, Personal Communication, June 3, 2011). Thus, as stigma and costs may hinder many in getting tested for STDs, the reported statistics are likely to suffer from underreporting which result in too low prevalence levels relative to reality. Due to this data unreliability, the accuracy of the reported STDs statistics from the NCDCPH should not be blindly trusted.

### HIV/AIDS/STDs and international emigration

It is recognised that international migration has aggravated the threat of the HIV epidemic in Georgia and its contributing role in spreading HIV/AIDS is evident from available epidemiological data (Gotsadze et al., 2004). According to the AIDS centre's data base, between 1989 and 2009, no less than 989 out of 2236 HIV positive individuals in Georgia were infected in a foreign country, making up 44.2 percent of the total number of registered HIV cases (AIDS centre, 2011). The majority of these were infected in Russia (69 percent) and Ukraine (18.6 percent) and other former Soviet

Union countries (12 percent). Only 8 percent were infected in European countries and the rest (0.7 percent) in African countries, USA and other countries (see fig. 11 below and table 4 in the appendix). This suggests that Georgian migrants, especially those travelling to Russia and Ukraine, contribute to rising prevalence levels and spread of HIV in Georgia as they return. No such data for other sexually transmitted diseases have been registered in Georgia, but high prevalence levels of STDs in both Russia and Ukraine may suggest high vulnerability for STDs other than HIV/AIDS among Georgian migrants undertaking sexual risk behaviour in these countries.

**Figure 11**- Distribution of registered HIV cases in Georgia by country of infection




(AIDS & Clinical Immunology Research Centre (AIDS center). (2011). *Statistical Data on HIV/AIDS in Georgia*, Provided by the head of the Epidemiology Department, May, 2011).

More detailed statistics about transmission modes from the AIDS centre show that 22.5 percent (226/1005) of all HIV cases infected abroad in the period 1989-2009, were infected via heterosexual contact, while no less than 74 percent (741/1005) were infected through injecting drugs (see table 5 in the appendix). Among those infected abroad through injecting drugs (741), 99.5 percent (737/741) were male and 70

percent (519/741) of these were infected in Russia, while 21 percent (156/741) were infected in Ukraine (see table 6 in the appendix). Also the majority of males infected abroad through heterosexual contact were infected in Russia and Ukraine.

These findings seem to suggest that Georgian migrants travelling to Russia and Ukraine are particularly vulnerable to HIV/AIDS through risk behaviour, especially through injecting drug use. HIV and other STDs are more prevalent among IDUs in Russia and Ukraine than in Georgia. In both countries, HIV prevalence among IDUs has been found to be as high as 14 percent (Rhodes et al., 2006; Dumchev et al., 2009). Due to sexual high risk behaviours among IDUs, prevalence of STIs are also high with syphilis prevalence of up to 20 percent reported among IDUs in certain areas of Russia (Rhodes et al., 2006)

Whether most Georgian migrants start to abuse drugs abroad or whether they bring with them the habit is not clear from the data. As discussed in the previous chapter, migrating without a partner may increase the likelihood of adopting risk behaviour while abroad in order to reduce feelings of loneliness. Many Georgian migrants are as known migrating without partners or families, and increased drug abuse while abroad may as such be a likely consequence. In addition, undocumented status leading to stress and loneliness may make them more likely to undertake risk behaviour, such as drug use.

It is likely to assume that many of the migrants who have been infected through injecting drugs abroad have been so because they have shared needles or syringes. According to a study of risk-behaviour among IDUs in Tbilisi from 2002, 5.3 percent had visited Russia or Ukraine in the previous year and all of these confirmed to have shared either needles, syringes or other injecting equipment while there (Dershem et al., 2003).

The percentage of Georgian HIV positive females who have been infected abroad is much lower than for men, counting only 18 percent of women registered with HIV (103/569) while 54 percent (902/1667) of HIV positive men. In contrast to male migrants, most women infected abroad have been infected through heterosexual contact (92 percent) (95/103), mostly in Russia (61 percent) (58/95) and Ukraine (10.5 percent) (10/95), but also in Turkey (12 percent) (11/95) (see table 6 in the appendix). Thus, female migrants seem to be most vulnerable to HIV/AIDS infections through

sexual risk behaviour, rather than through drug risk behaviour. This sexual risk behaviour evidently makes them vulnerable to other STDs as well as to HIV/AIDS.

The countries in which most Georgian female migrants have been infected may say something about the type of work performed while abroad. As earlier suggested, Georgian female migrants in western European countries tend to work with domestic services, which are not directly enhancing their STD vulnerability. In terms of HIV/AIDS vulnerability, this seems to be confirmed as only 11 percent (11/103) of females infected abroad have been so in western countries, notably in Germany, Greece, Italy and the US (see table 6 in the appendix). However, as mentioned, many females from Georgia migrating to FSU-countries and Turkey, work as prostitutes (either voluntarily or non-voluntarily). An HIV/AIDS behaviour surveillance survey conducted among female sex workers in the port city of Batumi in the Adjara region in 2008, found that one third of the interviewed sex workers (108 in total) had worked voluntarily as prostitutes abroad, and most of them in Turkey. Additionally, about 7.5 percent had experienced to be trafficked abroad (Curatio International Foundation & Tanadagoma Center for Information and Counseling on Reproductive Health, 2009). This type of work evidently enhances the risk of STD infections, including HIV/AIDS, as condom use among customers of CSWs is rare in the region (Buckley, 2005).

The reason for why more men than women seem to be infected by HIV abroad despite relatively equal numbers of male and female migrants, is possibly also connected to the fact that a large majority (more than 97 percent) of Georgian injecting drug users are male (Bemoni Public Union & Curatio International Foundation, 2009), and that it is more socially accepted in the Georgian society that men have extra martial sexual partners while abroad than it is for females to have additional sexual partners (World Vision Georgia, 2011). This last point was confirmed in the findings of a project implemented by the international non-governmental organization World Vision. From 2007 to 2011 World Vision carried out a "mobility exacerbated HIV prevention and impact mitigation project" in Georgia, Armenia and Azerbaijan. The goal of the project was to decrease the risk, vulnerability and impact of HIV in communities that served large numbers of mobile populations. In Georgia, the project targeted migrant and non-migrant households in Marneuli, Akhaltsikhe, Ninotsminda and Borjomi in the

Samtskhe-Javakheti region bordering Armenia and Azerbaijan, and in Batumi and Sarpi in the Adjara region bordering Turkey[22]. Both these regions serve large out-migration flows and community members in these areas were thus considered to be at risk for HIV/AIDS and STDs infections due to return migration.

Before the project activities, consisting of HIV prevention and advocacy with a focus on mobility and HIV started, a baseline survey and focus group discussions (FGD) with 480 participants from migrant-sending communities in these regions were implemented. According to the survey, more than 80 percent of men and almost 60 percent of women agreed that married men could have other sexual partners while away from home. However, for the question whether married women could have other sexual partners, more than 80 percent of both men and women disagreed (World Vision Georgia, 2011). Thus, while it is socially accepted by most men and women that men can have other sexual partners while abroad, a large majority of both women and men disagree that women can have the same.

Also in the FGD these attitudes were revealed as respondents thought that men not only can, but have to have other sexual partners while abroad, while women do not have the right to have on-the-side sexual partners, even when husbands are away for long periods. Gender inequalities in terms of sexual rights may thus together with feelings of loneliness, make male migrants more likely to engage in extra-martial sexual relationships while abroad, which enhance their own and their partners' risk for STD infections. Georgian migrants who have sexual relationships with commercial sex workers in Russia or Ukraine are at particularly exposed to HIV infections. These countries have among the largest number of women engaged in sex work within Eastern Europe and Central Asia (EECA) and in Russia, HIV prevalence has been found to be as high as 15 percent among sex workers (UNAIDS, 2006). Male respondents in the FGD admitted that HIV was a big problem because of migration and on-the-side sexual practices abroad. They also noted that syphilis and other STDs were prevalent in some migrant-sending families (Martirosyan, 2011).

[22] The project was also implemented in the Kakheti region in the west of Georgia at a later stage.

Risk of transmission of STDs to partners in Georgia is evidently higher among those couples that do not use condoms during intercourse. In general, the prevalence of contraceptive use is not very high in Georgia, especially not among women in rural areas and among those with low levels of education. A study about gender relations in Georgia found that 47 percent of women in reproductive age, did not use contraceptives and among these, only 17 percent used condoms. The limited use of contraceptives is reflected in the high abortion rate per Georgian woman who have ever had a partner (2.9) (Badurashvili, Cheishvili, Kapanadze, Tsiklauri, & Sirbiladze, 2008).

According to the baseline survey carried out by World Vision Georgia, 26 percent of the members in migrant-sending communities did not practice safe sexual behaviour by using condoms. The main reasons for this were that they were too ashamed to buy condoms or that they were not available. Other common reasons were that the respondent did not like to use condoms or that the partner objected (Martirosyan, 2011). The latter response may indicate unequal negotiating powers between men and women when it comes to sexual health in Georgian communities. In fact, in the FGD, male respondents confirmed that if the woman request to use condom, they only agree if it is to avoid pregnancy and not to avoid STIs (Martirosyan, 2011). In the gender relations study, it was further revealed that contraception is something that many couples never discuss, as about 20 percent of Georgian males were not aware about their partners' use of contraceptive methods (Badurashvili et al., 2008).

Lack of knowledge and awareness of HIV/STDs may also explain unsafe sexual behaviour and enhanced risks of infections within migrant sending communities. The WV survey indicated that only half of the mobile respondents had some level of knowledge and awareness of HIV transmission and prevention, and in fact no one had perfect knowledge[23]. Also among the families of mobile respondents, there was a clear lack of knowledge about HIV, particularly about prevention methods. According to the FG participants, education about HIV would help to reduce stigma surrounding the disease and as women improve their health knowledge, their ability to negotiate safe sex could also be improved according to respondents (Martirosyan, 2011).

[23] i.e. correct answer to all questions concerning HIV transmission and prevention

As earlier discussed, limited access to health care services for illegal migrants in destination countries may also prevent migrants from accessing information about HIV and other infectious diseases. Participants in the FGDs noted that STIs and HIV/AIDS were among the main problems Georgians face while in destination countries for long periods. At the same time, a majority (55 percent) of the respondents in the survey who had emigrated stated that they did not know how to get information about HIV/AIDS in the destination country. Difficulties in accessing health care in host countries were also reported during focus group discussions. Georgian migrants in Turkey, Armenia and Russia did not have access to health care services due to their illegal status, fear of getting deported or lack of money. Further, as an immigrant in Russia, HIV positive status entails deportation by law (Buckley, 2009). This is evidently a strong incentive for Georgian immigrants in Russia to avoid getting tested for HIV. Thus, lack of access to information and prevention services seems to make Georgian irregular migrants particularly vulnerable to infections. In addition, the lack of health care, including testing and treatment, enhance the likelihood of transmitting infections to partners when they return.

Limited access to testing and preventative information may not only be a problem in destination countries, but can also be lacking within migrant sending communities in remote areas of Georgia. As mentioned, Georgians seldom use primary health care services due to high costs. However, in remote areas where long geographic distances between each health care facility and poor infrastructure make access difficult, the utilization is believed to be even lower. As noted by Gagoshashvili; “As for the rural communities (in Georgia), access to health-care facilities, family planning services, and contraception is highly limited” (Gagoshashvili, 2008, p. 274). This limited access may hinder migrants from rural areas in undertaking voluntary counselling and testing (VCT) before they go abroad and when they return to their communities in Georgia.

As part of World Vision’s project activities, several health care cabinets were installed in the different target communities. These cabinets helped community members to obtain information and assistance without travelling long distances to the main cities in the regions (World Vision Georgia, 2011). In the evaluation report from 2011, easier health care access and increased knowledge about STD risks and migration were found to have

important positive effects on community members' health behaviour. Not only did the number of people practicing safe sexual behaviour increase by 14 percent, more migrant community members also went for preventative medical checks before migrating. In addition, many returned migrants requested HIV testing before they started living with their families again and the demand for condoms were raised in all regions. Stigma surrounding people living with HIV/AIDS was also reduced (World Vision Georgia, 2011).

According to the AIDS centre's database and World Vision's findings, there seem to be a connection between STD/HIV vulnerability and out-migration in Georgia. This is however only partly reflected in the regional HIV/AIDS and STD prevalence levels. The most HIV prevalent regions in Georgia are Tbilisi, Samegrelo, Adjara and Imereti (AIDS center, 2011). The high prevalence rates in these regions may be explained by the large cities found within them, naturally including higher numbers of risk groups, including IDUs, CSW, and also migrants. Interestingly, the Samtskhe-Javakheti region, which is ranked third in terms of external migration and was identified by World Vision as a STD risk region, is among the least HIV prevalent regions, with only 3 new registered HIV cases in 2009, compared to 132 new cases in Tbilisi the same year. Further, no cases of syphilis were registered in the region in 2009 (MoLSHA & NCDCPH 2010). This low prevalence despite high emigration levels may be explained by the limited access to health care facilities in the region and consequently low numbers of registered positive STD/HIV cases. While the AIDS centre operates clinics in Tbilisi, Samegrelo, Adjara and Imereti, no AIDS clinics are found in Samtskhe-Javakheti. Further, the number of visits to outpatient clinics in the region is among the lowest in the country with only 1.2 visits per patient per year. In comparison, the numbers of visits per patient per year in Tbilisi is 2.5 (MoLSHA & NCDCPH, 2010). Thus, when access to health care facilities is restricted, it might not be unreasonable to assume that a limited number of people undertake diagnostic tests in the region and that this might explain the low HIV/STD prevalence levels despite a high out-migration rate.

Thus, several factors seem to suggest that there is a connection between international emigration and HIV/STD prevalence levels in Georgia. Among the registered cases, there are clearly more male migrants who become infected abroad, mostly through injecting

drugs, but also through sexual contact. This represents a threat of transmission to sexual partners in Georgia and hence contributes to the spread of STDs/HIV within the country. While the number of registered female migrants who have been infected abroad is low, the reality might be different. In general, Georgian women were said to be more hesitant than men about visiting STD/HIV clinics due to stigma. Further, in Georgia, HIV/AIDS related stigma and discrimination is much higher towards female CSWs, than against male IDUs. As such, many Georgian female CSWs working abroad may feel more ashamed about getting tested for HIV/STIs when they return, than male IDUs who are less stigmatized within the Georgian society due to their traditional higher social status within the society than CSWs (Stvilia et al., 2005).

## Viral hepatitis

### Epidemiology and national response

Viral Hepatitis of the forms A, B and C are also prevalent infectious diseases in Georgia. The least common form, hepatitis A, is associated with ingestion of contaminated food and is as earlier mentioned often related to poor living standards. Hepatitis B and C are in contrast blood-borne infections, which can be transmitted through injecting drugs or in some cases through sexual contact (WHO, 2011, (b)).

According to NCDCPH's data, the prevalence of hepatitis B and C is high in Georgia, and in 2009 the incidence rate per 100 000 population was 105.3 for all types of viral hepatitis. This was a reduction by 21.5 percent from 2008 to 4644 cases. Among the three types, hepatitis C is the most common and among the adult Georgian population, prevalence has been found to be as high as 6.7 percent (CNEHRN, 2010). Hepatitis B is also prevalent, while very few cases of hepatitis A are registered (389 in 2009) (MoLSHA & NCDCPH, 2010).

As in many of the former Soviet Union countries, the hepatitis B and C epidemics in Georgia are occurring among injecting drug users and are much more prevalent within this group than HIV/AIDS (Shapatava et al., 2006; Kuniholm et al., 2008). Among IDUs in Tbilisi, Batumi and Poti, 7.2 percent were found to have hepatitis B and 58.2 percent had

hepatitis C (Kuniholm et al., 2008). A strong association between HCV prevalence and sharing of needles was found. In addition, positive status is associated with having been to prison and having had multiple sexual partners over the last two years. Weaker association between needle sharing and hepatitis B was identified, as this virus is more commonly spread through sexual contact (Kuniholm et al., 2008).

In contrast to the national response to HIV/AIDS, there is no coordinated national effort to stop the spread of hepatitis in Georgia. While a vaccine against hepatitis B exists, HBV immunization is not routine for Georgian children and there are no programs to vaccinate drug users for HBV (Shapatava et al., 2006). Free treatment for HIV/HCV co-infections is provided at AIDS clinics through funding from the GFATM. However, diagnostic and treatment only for HCV infections are not covered and numerous civil society actors are currently pushing for steps to be made towards national commitments in creating a concrete strategy to reduce the price of hepatitis diagnostics, and to implement a national program to halt the epidemics (CNEHRN, 2010).

### Viral hepatitis and international emigration

Like with STDs, no database establishing location of transmission exists for viral hepatitis in Georgia, and no studies clearly relate migration to the spread of hepatitis within the country. However, certain assumptions can be drawn from the available epidemiological data and behavioural surveys among IDUs. As seen from the HIV/AIDS statistics above, most HIV cases infected abroad were infected through injecting drugs in Russia and Ukraine. As hepatitis B and C also are transmitted through injections and as hepatitis C is prevalent among drug users in these countries, there is reason to believe that Georgian migrants are at risk for hepatitis infections when unsafe injection practice is carried out in these countries. In Russia, about 90 percent of the country's two million IDUs are infected by HCV, and in Ukraine between 70 and 90 percent of around 400 000 IDUs have the virus (CNEHRN, 2010).

As mentioned, irregular migrants may be more likely share needles abroad as access to clean needles and syringes may be limited. However, limited access to clean injecting equipment might not be the only reason for risky injection behaviour while abroad. In

Ukraine, pre-filled syringes are sold to IDUs and frontloading[24] from dealers' syringes is common practice (Shapatava et al., 2006). A study among injecting drug users in Ukraine found that the likelihood of HCV infection increased four-fold due to front- or back-loading practices (Dumchev et al., 2009). This means that even if Georgian migrants are not intentionally sharing needles with others, they might be at risk of HIV or hepatitis infections merely by buying drugs from dealers in the country.

In both Russia and Ukraine, nearly 95 percent of HIV infected people are also co-infected with hepatitis C, as most have been infected through injecting drugs (CNEHRN, 2010). Also in Georgia, HIV and HCV co-infections are common. In one study, the prevalence of hepatitis C among HIV positive patients were no less than 48.6 percent and men were about three times more likely to be infected than women (Babdridze et al., 2008 in Javakhishvili et al., 2010). The higher prevalence among males indicates that HCV infections are related to injecting drugs as this is the most common HIV transmission mode among Georgian men. In a behavioural study of IDUs in Georgia as many as 4 out of 5 HIV positive IDUs were infected by HCV (Kuniholm, 2008). This high prevalence of HCV among HIV patients, especially male IDUs, signals that a large portion of registered HIV-infected people in Georgia who have been infected by injecting drugs abroad have also been infected by hepatitis C. This was confirmed in conversations with a doctor at the AIDS centre, who claimed that the pattern was the same either if patients were infected abroad or in Georgia: HIV patients infected through injecting drugs were generally also infected by hepatitis C (HIV doctors, AIDS centre, Personal Communication, May, 2011).

Apart from being vulnerable to HCV infections through injecting drugs in Russia and Ukraine, Georgian migrants are also vulnerable to hepatitis infections, especially hepatitis B, through sexual risk behaviour while abroad. Significant HBV transmission has been identified among teenagers in Russia (Mikhailov et al., 2002 in Kuniholm et al., 2008) and HBV is prevalent among CSW. In a study from the city Tomsk in the Siberian region of Russia, 48 percent of sex workers were found to be infected by hepatitis B (Kmietowicz, 2006). If Georgian immigrants engage in unprotected sexual activity with

[24] Back- and frontloading involves transferring of solution from one syringe to another involving the possibility that blood-borne pathogens can be transmitted (Vlahov, 1995).

CSWs in Russia, the risk of HBV infection might thus be high.

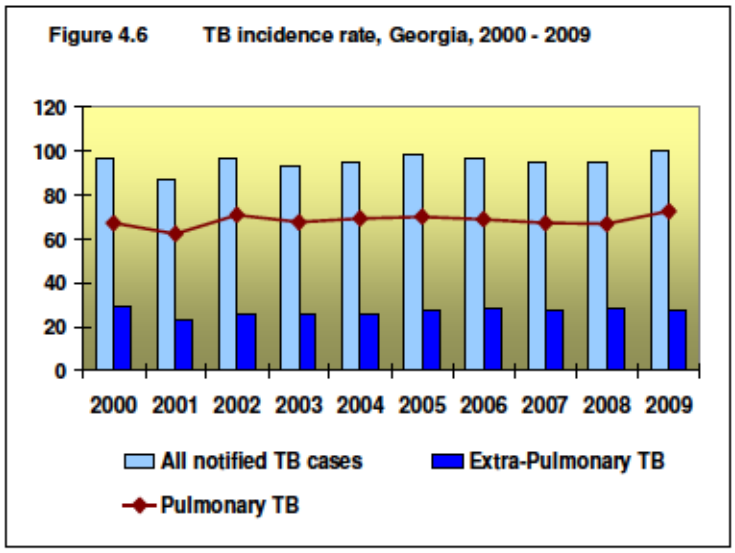
In terms of regional hepatitis prevalence in Georgia, it is hard to say whether there is any correlation to international emigration levels. Incidence rates per 100 000 population for chronic and acute hepatitis B was in 2009 highest in Samegrelo (102.0), Guria (54.0), Imereti (39.9) and Samtskhe-Javakheti (23.0) (MoLSHA & NCDCPH 2010). While Samegrelo, Imereti and Samtskhe-Javakheti have among the highest out-migration rates in the country, Guria is the region with the lowest level of emigration. No regional overview of HCV prevalence has been found, but one can assume the levels to be highest in regions where most IDUs are found, namely in Tbilisi, Imereti, Adjara and Samegrelo where the biggest cities are found. According to a behavioural surveillance survey among IDUs in Georgia, a vast majority of Georgian IDUs was found to reside in cities (Bemoni Public Union & Curatio International Foundation, 2009)

## Tuberculosis

### Epidemiology and national response

One of the most significant public health problems in Georgia is the high incidence and prevalence of tuberculosis (Mdivani et al., 2008). According to the WHO, the TB prevalence rate in Georgia in 2009 was 116 per 100 000 population and the incidence rate 107/100 000 (WHO, 2011, (a)). Overall, TB rates were growing dramatically from 1990 and up until the mid 1990s, a period during which the TB control system had collapsed due to the socio-economic and political developments in the country (NCTLD, 2010). The peak was reached in 1996 with an incidence rate of 195/100 000. In comparison, the incidence rate was 30 per 100 000 in 1989 (Toungoussova et al., 2005). As the TB control system has improved considerably since 2003, continuously high incidence rates may be attributed to more efficient detection methods (Chanturidze et al., 2009).

**Figure 12-** TB incidence rate in Georgian, 2000-2009

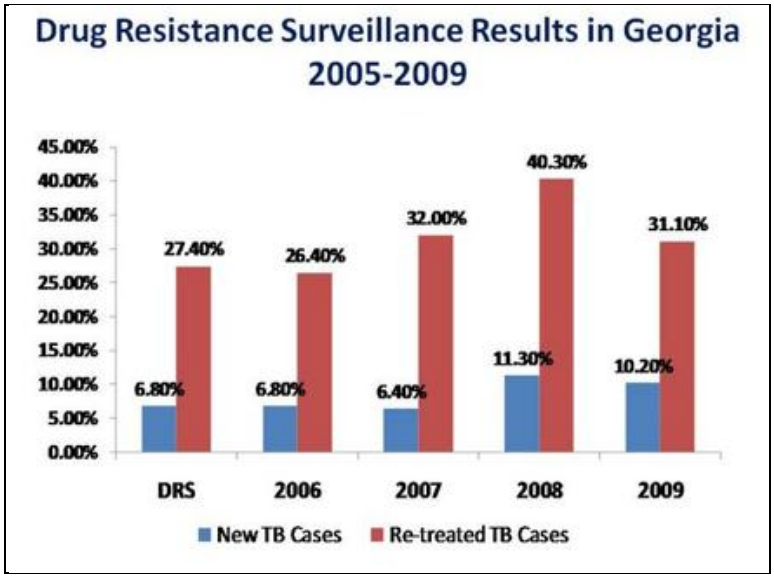



(Ministry of Labour, Health and Social Affairs of Georgia (MoLHSA) & National Centre for Disease Control and Public Health (NCDCPH), (2010), *Health and Health Care: Statistical Yearbook, Georgia 2009)*

Multidrug resistant (MDR) TB has also disseminated in Georgia over the last decades, partly as a result of the disintegration of the health care system resulting in irregular supply of drugs and poor patient compliance to treatment, but also due to increased poverty, civil conflict and internal and external migration (Toungoussova et al., 2005; Mdivani et al., 2008). In 2009, 10.2 percent of all new TB cases, and 31.1 percent of re-treatment cases in Georgia were resistant strands (see fig. 13) (NCTLD, 2011).

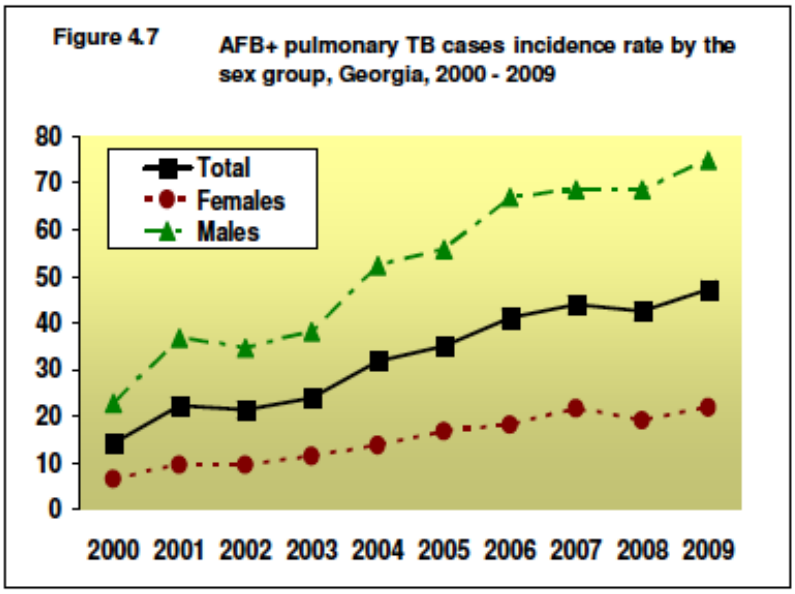
TB is most prevalent among males in Georgia (see fig. 14). While most males infected are between 25 and 44 years old, most TB infected women are between 15-34 years (NCTLD, 2011).

**Figure 13**- Distribution of drug resistance in new and re-treated TB cases in Georgia, 2005- 2009




(National Center for Tuberculosis and Lung Diseases (NCTLD). (2011). *Facts about Tuberculosis in Georgia*).

**Figure 14**- TB cases incidence rate by gender in Georgia, 2000-2009




(Ministry of Labour, Health and Social Affairs of Georgia (MoLHSA) & National Centre for Disease Control and Public Health (NCDCPH). (2010). *Health and Health Care: Statistical Yearbook, Georgia, 2009)*

Some of the risk factors of developing MDR TB in Georgia are re-treatment, injecting drug use and female gender. As TB generally is more prevalent among males, it is surprising that females seem to be at higher risk of developing MDR TB. Although little is known about the reasons, one study suggests that it might be related to the fact that women (wives, sisters, daughters) had cared for MDR TB patients at home during the times when inpatient care for these patients were not available in Georgia (Lomtadze, 2009).

The tuberculosis control in Georgia has been strengthened considerably over the last decades and a system for conducting TB control in the country was established in 1995. The National Centre for TB and Lung Diseases in Tbilisi coordinates TB control on regional and district levels, while TB dispensaries and primary health care facilities manage TB cases at the regional and district levels TB (Government of Georgia, 2006). Georgia ensures today universal access for both TB and MDR TB treatment (WHO/Europe, 2011, (b)). The risk groups who are subject to active targeting are people in close contact with positive TB patients, prisoners, HIV patients, military recruits, internally displaced people and IDUs (Government of Georgia, 2006).

### Tuberculosis and international emigration

It is hard to claim any direct relationship between high prevalence of tuberculosis and emigration levels in Georgia. No studies have investigated this relationship and in general it is much more difficult to establish the time and place of transmission of TB than for infections transmitted through risk behaviours. TB is an air-borne disease and transmission may thus happen unnoticeably. TB infections may also be latent for several years, so even if migrants develop symptoms in destination countries, it is hard to say whether the infection took place abroad or in Georgia before departure.

Although Georgians are at risk of tuberculosis infections within their own country, the risk of infection may be even higher among migrants travelling to countries with even higher TB prevalence levels and where their conditions in terms of health care access and housing may be worsened. According to the WHO, Russia is among the world's worst burdened countries in terms of tuberculosis with a prevalence rate of 132 per 100 000 population in 2009 (WHO, 2011, (a)). The prevalence in Ukraine is nearly equally high (130 per 100 000 population) and in both countries the estimated number of all

new TB cases with MDR TB is higher than in Georgia (16 percent in both Russia and Ukraine, 10 percent in Georgia. In comparison, TB prevalence rates in Greece and Turkey are only 5.1/100 000 and 25/100 000 respectively (see table 2) (WHO, 2011, (a)). It is thus foremost migrants travelling to Russia and Ukraine (or to other FSU countries with high TB prevalence) who might be particularly vulnerable to TB infections. As Georgian migrants in these countries also usually are involved in heavy outdoor work, such as construction, they might be particularly exposed to TB. Further, as most Georgian labour migrants are sending remittances home, they may be likely to compromise their own comfort in terms of housing, which may enhance their vulnerability to TB.

Georgian migrants who work illegally in destination countries are at risk of being detained. Russia has one of the highest prison population rates in the world, (613 per 100,000) and prison conditions fall well below international standards, with extreme overcrowding. The poor conditions and a high proportion of IDUs and other people of low socioeconomic status in Russian prisons, have lead to high TB prevalence levels. In one Russian study, the TB prevalence was found to be 4560/100,000 and another study showed that the percentage of MDR-TB in prison populations in Russia ranged from 12 to 55 percent in patients previously treated for TB (re-treatment cases) (WHO, 2008). Georgian immigrants who are detained in Russian prisons are thus clearly at risk of TB infections.

Georgian migrants who develop TB during their stay abroad are evidently a risk factor for transmission to family members and others in their community as they return home. However, it is hard to say whether migrant sending communities in Georgia are more exposed to TB than communities with few migrants due to the already high prevalence level in Georgia. According to recent estimates by the NCTLD, the most TB affected regions in Georgia are Adjara, Tbilisi, Mtskheta-Mtianeti, Samegrelo and Guria (NCTLD, 2010, (b)). However, the region with the absolute highest prevalence is the autonomous region of Abkhazia, in which the prevalence of drug resistant TB is among the highest in the world (Mdivani et al., 2008).

## Conclusion and hypotheses

This chapter has tried to identify whether and why Georgian emigrants are vulnerable to communicable diseases while in destination countries and whether their return to Georgia represent a risk of transmission to family members at home. Characteristics of Georgian emigration patterns clearly suggest that many Georgian migrants are subject to conditions that make them vulnerable to infections. Based on the above findings, certain hypotheses about which pre-disposing characteristics of migrants and migration-specific conditions that make Georgian migrants and their families vulnerable to infectious diseases can be established.

Hypotheses 1 A, B and C are related to the first part of the research question, namely under what conditions international migration affects Georgian migrants' vulnerability to infectious diseases in destination countries. The hypotheses build upon the various steps of migration as identified in figure 2 and consider the relation between risk and migrant selection in addition to structural and individual level conditions associated with the post-entry phase of migration:

### Hypothesis 1

**A) The selection of Georgian migrants affects their vulnerability to infectious diseases:**

- Positively in terms of the general high level of education among Georgian migrants, which may entail better health knowledge and ability to prevent infections

**B) The migration experience makes Georgian migrants more vulnerable to HIV/AIDS, STDs, hepatitis and TB infections relative to non-migrants because:**

- Georgian migrants, especially those with illegal status, might experience limited access to appropriate health care services in destination countries
- Many travel without partners which enhance the likelihood of undertaking high-risk behaviours abroad

- Illegal status may entail that living and working conditions abroad are directly strenuous on migrants' health and/or indirectly affect individual level psychological factors (loneliness, stress) which enhances likelihood of undertaking risk-taking behaviours

In the literature discussed in the previous chapter, female migrants were identified as more vulnerable to sexually transmitted infections than male migrants due to their higher likelihood of being sexually exploited or of undertaking transactional sex. However, based on revision of available data and documentation, male migrants seem in general to be more at risk of infections than female migrants in the Georgian case[25]:

**C) Georgian male migrants are in general more vulnerable to HIV/AIDS, STDs, hepatitis and TB infections than female migrants because:**

- They are more likely than women to migrate to high HIV/STD, hepatitis and TB prevalent countries, such as Ukraine and Russia
- They are more likely to inject drugs, which is the main HIV and HCV transmission mode in FSU-countries
- They are more likely to practice high risk sexual behaviour with CSWs abroad and to have extra-martial sexual partners because of higher acceptance of infidelity among men than among women in Georgian culture
- They are at risk of being sent to prisons due to illegal status in countries where TB is extremely prevalent in prisons, such as in Ukraine and Russia

Hypothesis 2 relates to the second part of the research question: under what conditions does the return of migrants affect the vulnerability to infectious diseases among migrants' families left behind in Georgia?

### Hypothesis 2:

**2) Georgian migrants infected by HIV/AIDS, STDs, hepatitis and/or TB and who return to Georgia are likely to transmit infection(s) to family members at home because:**

[25] Except when considering Georgian female migrants working as commercial sex workers abroad

- Frequent return due to "peddling migration" creates repeated opportunities for disease transmission relating specifically to epidemiological bridging
- Many migrants do not know they are infected when they return due to limited health care access abroad
- Many migrants avoid getting tested for HIV/STDs when they return due to stigma and/or limited geographic and/or financial access to health care services in home community
- Sex without condoms with regular partner is common and creates opportunities for transmission of HIV/STDs/HBV
- Women infected by migrant husbands can transmit HIV to children via vertical transmission in areas where access to health care is limited

These hypotheses drawing on available documentation, statistics and on the established theoretical frameworks developed in the previous chapter, form the basis upon which the primary research will be conducted. The aim of the qualitative research presented in the following chapters is thus to test the above hypotheses, in addition to provide answers to the sub-questions of the study, namely;

- Does international migration enhance Georgian migrants' vulnerability to HIV/AIDS, sexually transmitted diseases, hepatitis and/or tuberculosis during the post-entry phase of migration? Why and how?
- Does the risk of infection vary according to different characteristics of migrants and to social conditions related to the migration experience, such as destination country, legal status, gender, type of occupation in destination country, etc.? Why and how?
- Is the return of Georgian migrants from abroad associated with increased HIV/STDs/hepatitis/TB vulnerability among their families left behind in Georgia? Why and how?
- Are areas in Georgia with high levels of out-migration associated with higher HIV/STD/hepatitis/TB prevalence rates than low-out migration areas? Why?

# Chapter 3: Methodology

Available quantitative data provide insights into the migrant-disease relationship in Georgia, however the reliability of the quantitative data is limited and cannot provide a full understanding of the conditions that makes migrants vulnerable to certain communicable diseases. Not only are weaknesses in the Georgian reporting system hindering development of exact statistics, difficulties in establishing the place of disease transmission is also questioning to what extent data reporting number of cases infected abroad is reliable.

Given the limitations of the quantitative data, it is useful to investigate the migration-disease link further through qualitative data. In order to obtain more detailed information about the dynamics behind the migration-disease relationship in the Georgian context, qualitative data have been collected through in-depth interviews with various health and migration experts in Georgia. The qualitative data was collected through in-depth interviews during a three weeks field trip to Tbilisi in May-June 2011.

During the fieldtrip, the qualitative data was collected through face-to-face in-depth interviews with various experts from the field of health and/or migration based in Tbilisi. The expert interviews undertaken were semi-structured and interview guides covering a list of open-ended questions were designed specifically for each interview participant (see example of interview guide in the appendix, attachment 1). The guides were divided into sections covering different topics related to the research question. The first section covered broad questions aimed at relating the respondents to the topic. The questions in the second part concerned the disease environment in Georgia, while the following two sections contained more specific questions related to the relationship between migration and infectious diseases, including return. The next section covered knowledge about infectious diseases within the Georgian population and lastly, participants were asked to give recommendations for how to limit the spread of HIV/STDs/hepatitis and TB within Georgia.

Each interview was recorded and transcribed. The average duration of the interviews was 45 minutes. While most interviews were undertaken in English, seven were conducted with translator, translating from Georgian to English.

## Sampling

The sampling was non-random and the main sampling strategy used was purposive sampling. The participants were selected on the basis of preselected criteria, namely that they were in direct contact with TB/HIV/AIDS/STDs/hepatitis patients and risk groups and /or were experts in the field of infectious diseases and/or migration in Georgia. The selected interviewed experts and medical personnel represented governmental, non-governmental and international organizations. The selection and recruitment of respondents was undertaken in close collaboration with a Georgian Programme Manager at the International Centre for Social Research and Policy Analysis (ICSRPA) in Tbilisi. Her extensive overview of national and international actors involved in the field of migration and health in Georgia, and in general her familiarity with the local culture and language, was of great value when identifying and recruiting relevant respondents. A few participants were selected through snow-ball sampling, i.e. preselected participants identified other experts who could potentially contribute to the study. The sample size was determined on the basis of theoretical saturation, i.e. at the point when new information no longer provides additional insights to the research question (Mack et al., 2005). In total, 19 interviews were undertaken[26]. An overview of the different interview respondents can be found in table 3 below.

The capital Tbilisi was chosen as the research area. This location was selected due to its high level of out-migration and good access to experts in the field of infectious diseases and migration. Due to practical constraints, no respondents in other regions than Tbilisi were interviewed. This implies that doctors' experiences related mostly to HIV and TB patients from the Tbilisi area, creating a certain bias at the expense of other out-migration regions of Georgia. The results from the interviews with doctors at the AIDS and at the TB centres do as such only provide insights into the health of migrants returning to Tbilisi and the surrounding area.

[26] HIV doctors 2, 3 and 4 were interviewed together due to time constraints on behalf of respondents

**Table 3**- Overview of interview respondents listed according to respondent's institution, title and responsibilities.

| Organisation / Institution | Respondent's title | Respondent's responsibilities |
|---|---|---|
| **Infectious diseases, AIDS and Clinical Immunology Research Centre (AIDS centre)** (3 interviews (HIV/AIDS doctors 2, 3 and 4 interviewed together)) | Head of Epidemiological Department | Manages department, undertakes statistical analyses, voluntary HIV/AIDS counselling and testing and has direct contact with HIV/AIDS patients at the centre |
| | HIV/AIDS doctor 1 | Diagnoses and treats patients for HIV/AIDS and opportunistic and co-infections |
| | HIV/AIDS doctor 2 | Involved with research and management of the national HIV/AIDS database. Undertake voluntary counselling and testing of patients |
| | HIV/AIDS doctor 3 | Works in the in- and outpatient services with counselling, testing and treatment of HIV/AIDS patients |
| | HIV/AIDS doctor 4 | Works in the in-patient clinic with counselling, testing and treatment of HIV/AIDS patients |
| **The National Centre for Tuberculosis and Lung Diseases (NCTLD)** (6 interviews) | Head of epidemiology and administrative planning department | In charge of program implementations, monitoring and evaluation. Provides treatment to MDR TB patients. |
| | Head of outpatient clinic | Manages out-patient services. Undertakes counselling, testing and treatment of TB and MDR TB patients. |
| | TB doctor 1 | Undertakes counselling, testing and treatment of TB and MDR TB patients |
| | TB doctor 2 | Undertakes counselling, testing and treatment of MDR TB patients |
| | TB doctor 3 | Undertakes counselling, testing and treatment at the ambulatory for TB and MDR TB patients |
| | TB doctor 4 | Undertakes counselling, testing and treatment of TB infected children |
| **Institute of Dermatology** | Deputy Director in Clinical | Manages the in-patient |

| | | |
|---|---|---|
| **and Venereology** | Field | department and undertakes scientific research in the area of rare diseases |
| **The Georgia Red Cross Society** (2 interviews) | Deputy Head and Social Project Coordinator | Oversees and coordinates all activities |
| | Head of Health Department | Responsible for implementation of programmes and projects related to health |
| **The World Health Organisation (WHO), Georgia** | Country Programme Coordinator, STIs/HIV/AIDS Programme | Coordinates WHO's activities in the HIV field |
| **The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), Georgia** | Global Fund Projects Director | Representative of the Global Projects Implementation Centre, managing grants from the GFATM |
| **Save the Children, Georgia/RTI** | HIV Prevention Expert for Georgia HIV Prevention Project (GHPP) | Responsible for implementation of HIV prevention programmes and other health projects (previous director of the STI/HIV Prevention (SHIP) program in Georgia. |
| **The International Organisation for Migration (IOM), Georgia** (1 interview) | Assisted Voluntary Return and Reintegration Project Coordinator | Coordinates projects related to voluntary return and reintegration of Georgian migrants, sometimes with health components |
| | Health and Psychosocial focal point | Involved with assessment and elaboration of possible projects in the field of migration and health |
| **Bemoni Public Union** (1 interview) | Chairperson | Overlooks all activities of the centre. Expert in addiction and HIV prevention field |
| | Program Manager | Coordinator of Georgian HIV prevention projects funded by USAID and RTI |
| **Tanadagoma – Centre for Information and Counselling on Reproductive Health** | Executive Director | Involved with fundraising, presentations and overlooks all activities of the centre |
| **World Vision Georgia** (1 interview) | Mobility/Be Healthy Projects Manager | Implements public health programs and coordinates HIV/AIDS prevention projects, including the mobility project |
| | Field Officer, Mobility Project | Involved with HIV prevention project and with project implementation in the field |

## Methodological Limitations

The selection of respondents creates a potential for bias based on non-representative informants. Although respondents were carefully selected according to their experience with HIV/STDs/TB/hepatitis patients or risk groups and/or to their knowledge of Georgian migration patterns, some informants had limited knowledge about the migrant-health relationship and might as such have provided distorted information. Further, in lack of a complete overview of all relevant actors on the subject matter and due to limited time, other important informants might have been left out in the selections process. This in turn may translate into limited generalisation of findings.

# Chapter 4: Findings and Analysis

This chapter will present and discuss the results from the conducted interviews. The results are presented in line with the logic demonstrated in the migration-disease vulnerability frameworks (fig. 2 and 3) presented in the literature review. However, in the first part of the research question, the emphasis will be on the post-entry phase of migration given that this is the main focus of the research and that respondents identified conditions associated with this phase of migration as most influential in terms of enhancing disease vulnerability among Georgian migrants. The findings related to the second part of the research question focus on migrants' return.

## Post-entry phase of migration

### *Type of migration*

Both structural and individual level determinants associated with disease vulnerability during the post-entry phase of migration are, as demonstrated in the vulnerability framework (fig. 2), affected by the type of migration, such as legal or illegal migration. As hypothesised in hypothesis 1 B, respondents identified illegal status of many Georgian labour migrants as a considerate risk factor affecting both migrants' risk taking behaviours in terms of low utilization of health care services, and their living and working conditions.

Limited access to health care services in destination countries among Georgian migrants were mentioned as a problem by several of the interviewees. According to the representatives of World Vision Georgia, the illegal status of many of Georgia's migrants is the main reason for why they cannot or will not visit health care services abroad:

*"(...) the problem is that in our case there are many migrants who are migrating illegally. So they have many problems with documentation, they are hiding there abroad and they don't have access to health services and in many cases they don't address doctors or health services and they are self-treating and that's why this is a problem"* – Field officer, World Vision Georgia

*"(...) they don't want to address health services because they are afraid of being deported, and that's why they don't address doctors there"* – Mobility project manager, World Vision Georgia

Thus, fear of deportation seems to be hindering many illegal Georgian immigrants in seeking health care abroad. As a result, many may never receive professional treatment of diseases and self-treatment becomes the only available option. Self-treatment and associated drug resistance was discussed earlier as a problem in Georgia due to high health care costs and easy availability of prescription drugs in pharmacies. Whether illegal migrants are more likely to self-treat abroad than while in Georgia is hard to say and partly depends upon how easily available TB or other prescription drugs are in the host country compared to in Georgia. However, one might assume that the illegal status abroad enhances the likelihood of self-treatment somewhat, as illegal migrants avoid to seek care even if they can afford it due to fear of deportation or possibly lack of legal right to health care.

Illegal status was also associated with poor living conditions, such as detention in overcrowded prisons; a risk factor for contracting TB. According to the Head of the Health Department of the Red Cross Society, many illegal Georgian migrants compromised their own living conditions, by for example living on the streets, as they tried to save money to their families at home. Further, among the TB doctors, it was generally understood that returned migrants with TB had experienced poor living conditions abroad and many had been to prison (TB doctors 1 and 4 and the Head of Outpatient Clinic at TB centre). According to the Head of the Outpatient clinic at the TB centre, almost all of their patients who had been to prison in Russia or Ukraine were infected by MDR TB. Also doctors at the AIDS centre identified detention in Russian or Ukrainian prisons as a major risk factor for acquisition of TB. However, the respondents underlined that the risk of TB infection in Georgian prisons is nearly as high as in Russia and Ukraine. As noted by the WHO representative:

*"(...) sometimes Georgians working in Russia are involved in criminal activity in Russia and are sent to prisons there. (...). And migrants could also be a source of TB in Georgia, but not the major one, because also in Georgia it is the same situation in prisons (...) and this is the major source of TB infections in Georgia"* – Country Programme Coordinator, STIs/HIV/AIDS Programme, WHO Georgia

Thus, while return migration of previous Georgian detainees from Russian or Ukrainian prisons is not the major source of TB in Georgia, it is a TB vulnerability factor among migrants who are likely to be at higher risk of detention in Russia and Ukraine than in Georgia due to their illegal status in host countries.

### *Structural and individual level determinants*

In the vulnerability framework (fig. 2) the conditions associated with migrants' vulnerability to infectious diseases during the post-entry phase of migration were divided into structural and individual-level determinants. Both types of determinants may contribute to risk-taking behaviours and hence to disease vulnerability among migrants.

In terms of structural determinants, risky working conditions associated with the migration experience were identified to raise the vulnerability to sexually transmitted diseases among Georgian female migrants working as commercial sex workers in Turkey. According to the Executive Director of Tanadagoma, the reason is that they are being paid more in Turkey, especially if they allow unprotected sex with clients. Female migrants looking for work beyond commercial sex jobs in Turkey might also be at risk of infections as many are tempted to get engaged in commercial sex work due to the high demand and good pay:

*"(...) yes, they* (Georgian female CSWs) *are more at risk when they work abroad I guess because they are paid more. They go there to earn money because they are paid more. For example, the majority of them report Turkey as their main destination. It is easier to get over the border, you don't need visa, it is cheaper and so on. You can see the buses full of young, different women who are going to Turkey. And in Georgia they are probably sometimes on some terms, either declared or self-identified sex workers, or they wouldn't mind also getting some extra, whatever, income from that. So they are paid more and sometimes they are paid even more for not using condoms, and so on, so they might be under great risk"* – Executive Director Tanadagoma

Interestingly, better pay for unprotected sex was not revealed as the only factor enhancing the risk of STD infections among Georgian women in Turkey. In fact, for several years, Georgian CSWs going to Turkey have been provided with medications that

they are being told will protect them against STD and HIV infections. This medication is often provided by people assisting them during migrating, such as pimps or owners of brothels were they work. Evidently, this false perception about being protected against STDs/HIV will make them less likely to use condoms and thus enhance their risk of infection:

*" (...) they are told by some others, their colleagues etc., or some pimping person, someone who is assisting them in getting abroad, that there are some medications that they take so they don't need using condoms because they are protected for months, (...), some injections. Of course they don't protect"* – Executive Director Tanadagoma

Better pay for unprotected sex and distribution of false preventative medication are thus working conditions specific to the migration experience that seem to make Georgian female migrants engaged in the sex industry, more vulnerable to STD infections in Turkey than in Georgia. The vulnerability is however also connected with the level of health knowledge among the Georgian commercial sex workers. If the CSWs would have had perfect knowledge about sexually transmitted diseases and how one can or cannot prevent infections, they would most probably not have believed that the medication would keep them safe and rather used condoms. Thus, this case illustrates that predisposing characteristics of migrants, such as educational level, also can affect their vulnerability to infections during the post-entry phase of migration.

Predisposing characteristics or migrant selection in terms of gender was also, as assumed in hypothesis 1 C, found to affect migrants' risk of infections in host countries. In the Georgian case, male migrants were as expected identified as being at higher risk of contracting sexually transmitted or blood borne infections compared to female migrants.

First of all, the interviewed doctors at the AIDS centre confirmed that more or less all of their HIV patients infected abroad were men. Further, in contrast to the statistics from the AIDS centre's database indicating that around 55 percent of registered male HIV patients in Georgia had been infected abroad, all of the doctors at the AIDS centre were of the opinion that no less than 80 percent of the male patients at the centre had been infected outside of Georgia. This might indicate that the AIDS centre in Tbilisi receives more returned migrants than other clinics, which is likely given the fact that Tbilisi is the

region with the highest out-migration rate in the country. According to AIDS doctor 1, most of these HIV positive men have been infected in Russian cities, such as in Sotchi, Petropavlovsk, Moscow and Novosibirsk, and in the cities of Odessa, Kiev and Nikolaiov in Ukraine.

On the question about whether Georgian migrants were more at risk of HIV infections than non-migrants in Georgia, HIV doctor 1 replied:

*"If it's a male person and he lives in post-soviet countries, he is at very big risk, yes. But if the person is female and for example live in Israel, or in Italy or in Greece, yes they have very less risk"* – HIV doctor 1

Thus, the vulnerability to HIV infections is as hypothesised related to gender and Georgian emigration patterns. Most male migrants go to high-prevalent countries, while most women choose to migrate to countries with lower prevalence rates than in Georgia. This pattern was also reflected by the TB doctors' responses who said that a large majority of the few TB or MDR TB patients infected abroad were males returning from FSU countries, often from prisons.

However, the gendered vulnerability is as stated in hypothesis 1 C, also conditioned by risk taking behaviours, such as drug use and unprotected sex. The hypothesis states that Georgian male migrants are at higher risk of HIV and HCV infections than female migrants due to injecting drug use in Russia and Ukraine. This was confirmed by many of the respondents (representatives from WHO Georgia, TB and AIDS centres, Tanadagoma, GHPP). Also, in line with the HIV statistics, all of the AIDS doctors concurred that injecting drug use was the main transmission mode among male patients infected abroad.

The respondents further confirmed the hypothesis that Georgian male migrants are more likely to have extra-marital sexual partners and to undertake sexual risk behaviours abroad than Georgian female migrants, due to the Georgian culture being more tolerant towards infidelity among men than among women (representatives from World Vision and GHPP):

*"(...) maybe according to Georgian culture, men are more vulnerable* (to HIV/STDs) *because they think that they can have sexual intercourse with other persons. (...). Of course*

*it happens with women as well, but according to Georgian culture it is more common among men "* - Mobility project manager, World Vision Georgia.

Male migrants' risk taking behaviours in terms of injecting drug use were also identified as being related to structural determinants in the host country. While the statistics from the AIDS centre identified injecting drug use to be the main transmission mode among Georgian male migrants, the data did not say anything about whether the returned migrants had started to use drugs abroad or if they were drug users already before they emigrated from Georgia. Interestingly, it was suggested by the Head of the Epidemiological Department at the AIDS centre, by the Chairperson of Bemoni Public Union and by the Head of the Health Department of Georgia Red Cross Society, that drug use is something Georgian migrants often start abusing only after they have arrived to their destination country:

"(…) *migrants don't have the necessary living conditions, necessary health care… and so on. They are in very hard situations and I think that these situations is a risk factor for them to start using drugs. Especially for those who already have tried drugs in Georgia before"* – Chairperson of Bemoni Public Union

""(…) *we had a lot of labour migrants who travelled in Russia and Ukraine and they had some kind of jobs and used commercial sex workers there and some started to inject drugs because they were on the streets or something"* - Head of epidemiological department, AIDS centre

Thus, structural level determinants, such as difficult living conditions were identified as factors contributing to risk behaviours in the form of drug abuse among Georgian male migrants. This recourse to drug-abuse among male migrants experiencing harsh living conditions might be explained, as stated in hypothesis 1 B, by migrant' feelings of stress and loneliness. Drug abuse might in fact act as an "escape" from the difficult circumstances related to the migration experience.

Respondents also mentioned conditions related to the socio-political environment in host countries, namely access to and prices of drugs, as influencing Georgian migrants' initiation of drug use:

*"(…) many people* (Georgians) *working abroad are drug users. From what I know they start abroad. When they start working somewhere in European countries where the availability of these drugs and price of these drugs, are much more cheaper"* - Red Cross, head of health department

Due to Georgia's strict national drug legislation penalising drug use with high fines and as a criminal offense, drugs are hardly available in the country and prices are extremely high, especially compared to the average income (Javakhishvili et al., 2010; Chairperson at Bemoni Public Union; Georgia Red Cross Society). As such, cheaper and easy available drugs in other countries, both FSU and European countries, may tempt Georgian migrants to buy drugs, something they could not afford while in Georgia. Drug prices were not hypothesised as influencing migrants' likelihood of undertaking risk behaviours. However, the socio-political environment in host-countries is identified as a determinant for disease vulnerability in figure 2.

HIV and/or HCV transmissions among drug users are generally caused by unsafe injection practices. As earlier discussed, behavioural studies among IDUs in Georgia show that Georgian migrants might be more likely to share injection equipment abroad than in Georgia. This was also confirmed during interviews with representatives of Bemoni Public Union, Georgia HIV Prevention Project (GHPP) and Tanadagoma. As expressed by the HIV prevention expert for GHPP:

*"I personally participated in interviews with IDUs, when they were saying they had been infected in Russia or Ukraine, and they documented why, because they were sharing* (needles/syringes) *there with people. But of course it is difficult to prove that, without testing before, but their assumption was at least that they had been infected outside"* - HIV Prevention Expert for Georgia HIV Prevention Project (GHPP).

Some of the reasons identified for why sharing of injection equipment is more common in Russia and Ukraine, were related to conditions already mentioned as specific to the Russian/Ukrainian environment, such as easy access to used syringes found in the streets and sale of pre-filled syringes (front-loading). The host countries' legal environment was partly explaining this easy access to used injection equipment and hence risky-injecting practices among Georgian migrants. As the drug legislation in Russia and Ukraine is less strict than in Georgia, drug use is practiced more openly and

IDUs are less concerned about hiding their used injecting equipment. In addition, the access to clean needles might be more difficult abroad than in Georgia as explained by the program manager of Bemoni Public Union:

*"It is not maybe evidence based, but here* (in Georgia) *it is easy to get sterile syringes and needles due to easy accessibility in pharmacies and it is also very cheap. But abroad the availability is lower, you need prescription to buy needles. So it is not as easy to get clean syringes as in Georgia. Maybe that is why sharing practice abroad is higher"* - Program manager Bemoni Public Union

As mentioned, Georgian migrants may also be likely to start drug abuse in European countries, but the risk of HIV infection should be considerably lower there than in Russia and Ukraine where the HIV prevalence among IDUs is much higher than in western European countries. Further, the GHPP representative mentioned that access to clean syringes is better available in Western Europe than in Russia and in Ukraine. However, a study of Georgian failed asylum seekers returning from Switzerland showed relatively high prevalence of HCV and HIV infections. According to the IOM Georgia, about 20 – 25 percent of 34 failed asylum seekers were identified as injecting drug users in the period 2006 – 2010. Among these, 56 percent (19 out of 34) tested positive for hepatitis C and about 12 percent (4 out of 34) were HIV positive (Assisted Voluntary Return and Reintegration Project Coordinator, IOM Georgia). Although this result indicates that injecting drug use is practiced by Georgian migrants also in European countries, such as in Switzerland, it is hard to say anything about their risk of infections in these countries as we do not know where these asylum seekers had been infected.

Thus, characteristics of destination country in terms of drug legislation and structural determinants, such as living conditions were identified by respondents as affecting Georgian migrants' likelihood of initiating injecting drug use abroad.

While injecting drug use was identified as the main HIV and HCV transmission mode among Georgian migrants by the AIDS centre in Tbilisi, other respondents identified sexual risk behaviour as the main transmission mode placing migrants at risk of HIV and other sexually transmitted infections. As stated by the representatives of World Vision:

*"For migrants it is unprotected sexual intercourses. This is the main cause of HIV transmission. Not only HIV, but STIs also. Because STIs are more common than HIV"* – Mobility project manager, World Vision Georgia.

This is thus contrary to the HIV statistics from the AIDS centre, which showed that most HIV patients infected abroad had been infected through injecting drugs. Although the statement is based on experience from working in migrant sending communities and not clinical test results, it might reflect the fact that a large part of the HIV positive people in Georgia never get tested and registered with the AIDS centre. As such, the real rate of returned migrants infected through sexual risk behaviour relative to injecting drug use might in fact be higher than indicated by the HIV statistics. The fact that STDs are observed as more common than HIV among returned migrants also indicates that unprotected sexual behaviour is commonly practiced among migrants abroad.

As assumed in hypothesis 1 B, the social dynamics of migration was identified as a determinant of the sexual risk behaviour among migrants due to loneliness and absence of regular partner:

"*And also when they are abroad, they are far from their spouses or their sexual partners and they have unprotected sexual intercourses"* – Field officer, World Vision Georgia

The interconnectedness of the various determinants within the different phases of migration was clearly demonstrated in respondents' answers about Georgian migrants' vulnerability to infectious diseases abroad. While the type of migration in terms of illegal status influenced migrants' access to health care and living conditions, selection of migrants in terms of gender, and to some extent educational level, were related to risk taking behaviours. Injecting drug use was also according to respondents related to migrants' living conditions and the specific drug and socio-political environment within the destination country, while sexual risk behaviour could partly be explained by the social dynamics of migration.

Overall, several of the same conditions related to the migration experience as demonstrated in the vulnerability framework (fig. 2), were identified by respondents to enhance Georgian migrants' vulnerability to HIV, STDs, hepatitis and to some extent tuberculosis in destination countries. The next section will look at how respondents

related these conditions to the spread of infections from returned migrants to family members and partners left behind in Georgia.

## Effects of Return

### *Epidemiological bridging*

In the framework for the association between return migration and vulnerability to infectious diseases among family members left-behind (fig. 3) epidemiological bridging, i.e. transmission of infectious diseases from high disease prevalent countries to low(er) disease prevalent countries via migrants, was outlined as the first in the flows of determinants affecting migrants' family members' vulnerability to infectious diseases. The disease transmission was also theorised to be influenced by the type of return migration and to the frequency of return.

As Georgian migrants move from TB prevalent Georgia to less TB prevalent countries in for example Western Europe, they naturally represent an epidemiological bridge between the areas and may as such contribute to the spread of TB in Western Europe. Due to the extremely high prevalence of tuberculosis within Georgia, it is less likely that a bridge of Georgian migrants returning to Georgia from other TB prevalent countries has an important influence on the spread of TB within Georgia. This was also the opinion of respondent at the TB centre, although they emphasised that no empirical data can confirm the lack of correlation between migrant return and TB transmission:

"(*…) I'm here* (at the TB centre) *since 2002 and I never heard about the migration-tb relationship, but again, that does not mean that there is not a problem, I'm just saying that there was nothing* (research) *done".* **-** Head of epidemiology department, TB centre

"*If the patient lived here for example only for one month and for ten years outside Georgia, we can say that he was infected abroad. But it is a difficult issue so we cannot find exactly where the infection was. It's just according to what the patient tells, so officially we cannot know***" -** TB doctor 2 (translated)

It is clearly difficult to prove or disprove whether returned Georgian migrants contribute to the spread of TB in Georgia due to the difficulties in establishing the time

of transmission. According to the interviewed TB doctors' own experience, a large majority of patients are infected in Georgia and the very few imported cases come from migrants returning from other FSU countries, mainly Russia and Ukraine. However, as the epidemiological TB environment in Georgia remains very similar to most FSU countries, they did not consider migrants returning from these countries to be an important fuelling factor to the Georgian TB epidemic (TB doctor 1, 2 and 3 and the head of the outpatient clinic at the TB centre). Thus, while migrant-sending families may be at risk of TB infection from a returned family member, this risk cannot be considered to be much higher than it already is among non-migrant sending families in Georgia.

One indication of the small extent to which return migrants are represented among MDR TB patients in Georgia was provided during an interview with the Head of the Epidemiology Department at the TB centre. She confirmed that during the intake process of MDR TB patients at the TB centre, patients have since 2009 been asked whether they have been working abroad for a longer period. Out of around 1000 registered MDR TB patients, only five were identified as returned labour migrants. Despite methodological weaknesses related to this process, such as the patient not being obliged to answer, the question not being asked by the health care personnel[27] etc., the result might give an indication of that return migration is not an important contributing factor to the Georgian MDR TB epidemic.

Nevertheless, the results are clearly not providing a complete picture and the previous sections did demonstrate that conditions surrounding the migration process of illegal Georgian migrants in Russia and Ukraine may enhance their risk of TB and MDR TB contraction relative to the risk under legal status in Georgia. As such, the return of an illegal migrant from a prison in Russia or Ukraine is clearly enhancing TB vulnerability to family members to whom the migrant is returning. This relates to the framework (fig. 3) stating that the disease vulnerability among left-behind family members is conditioned by the type of return migration.

While the risk of TB or MDR TB transmission from returned migrants to family members is hard to establish and may be considered as relatively low except in the case of return

[27] "*But it's all this bias when it is filled by someone, for example someone skip the question, there is not such big focus on this* (migration), *so its not very precise"* - Head of epidemiology department, TB centre

migration from prisons in Russia or Ukraine, the risk of STD/HIV transmission from migrants to migrant-sending families is likely to be much higher. As confirmed in the previous section, a large part of Georgian HIV patients have been infected abroad, of which most in other FSU-countries. Respondents were clearly of the opinion that return migration from Russia and Ukraine is a crucial factor explaining the spread of HIV within Georgia.

**"***The majority of our patients unfortunately, are infected abroad. That's why we say that the HIV epidemic is not endemic in our country, it is coming from Northern countries, so Ukraine and Russia."* - HIV doctor 2

**"***It is very typical that patients are travelling to other countries for money, for reaching work, or maybe other reasons. After that they are going back to Georgia and they are HIV infected. It's a very typical situation. A lot of cases in Georgia are coming back from other countries, in neighbouring countries it is very alarming situation. Firstly in Ukraine, then Russia, then Turkey"* - HIV doctor 1

Also the WHO representative confirmed that most of the HIV important cases are migrants who have returned from high HIV prevalent countries:

**"**(…) *we have huge migration in Georgians, working particularly in Russia, in Ukraine, in former Soviet Union, as well as in Europe or in the US. But the HIV imported cases are coming mostly from Ukraine and from Russia"* - Country Programme Coordinator, STIs/HIV/AIDS Programme, WHO

Although the medical personnel interviewed had had few cases of patients infected by HIV/STDs by returned migrants, respondents were of the opinion that there was a clear risk of HIV transmission from migrants to partners upon return. As expressed by the Head of the Epidemiology Department at the AIDS centre:

*" (…) when you are a labour migrant, going to a different country and doing everything to just have some money and send to your family, you are at risk all the time, maybe you have some commercial sex or something like this, or maybe you are abused sexually. And when they are coming back if they are HIV positive, they can transmit this infection to their family members*" - Head of epidemiology, AIDS centre

Migrants' enhanced disease vulnerability abroad is as such transferred to partners upon return. The doctors at the AIDS centre could identify cases of patients, especially women, who had been infected by returned migrant partners:

*" (..) we have some cases, yes. When wife stay in Georgia and husband for example working in Moscow, and when husband came back to Georgia, wife became infected by HIV. Yes, we have some cases, sure"* – HIV doctor 1

Thus, there is clearly an epidemiological bridging effect of HIV/AIDS from Russia and Ukraine to Georgia via Georgian migrants. Although not explicitly stated by respondents, the type and frequency of migration should also be influencing the effect of return upon HIV/STD dissemination within Georgia. Due to previously discussed reasons, migrants who have worked illegally abroad are more likely to return with infections than legal migrants. Further, as Georgian male migrants are generally more exposed to sexually transmitted or blood borne infections than female migrants, it is highly likely that male migrants' partners (sexual or needle partners) are at higher risk of HIV/STD infections than female migrant' partners. Respondents did not identify "peddling" migration as enhancing the risk of HIV/STD transmission (hypothesis 2). However, it is natural to assume that the risk of transmission to a partner in Georgia increases for each time the migrant returns home.

While return migration, especially from Russia and Ukraine, is likely to contribute to increased HIV/STD vulnerability among migrant-sending families relative to non-migrant sending families, it might also lead to enhanced TB vulnerability among migrants' family members. This is because the epidemiological HIV bridging between Russia/Ukraine and Georgia is partly fuelling the existing TB epidemic within Georgia. People living with HIV have a weakened immune system and are thus very vulnerable to TB and other opportunistic infections. According to the head of the outpatient clinic at the TB centre, most Georgian HIV patients also have TB. This means that migrants returning with HIV are likely to also infect family members with TB, unless they receive anti-retroviral (ARV)-treatment upon return. Partners infected by HIV are similarly at high risk of developing TB unless the infection is discovered and ARV treatment initiated at an early stage.

Despite lack of data, dissemination of hepatitis B and C is, as the spread of HIV/AIDS, likely to be fuelled by return migration from Russia and Ukraine. This is given the fact that hepatitis B and C are transmitted though the same risk behaviours as HIV/AIDS, and the fact that the prevalence of these diseases is even higher than of HIV/AIDS in Russia and Ukraine. Partners (sexual or needle partners) of migrants, especially illegal male migrants in Russia and Ukraine, are thus also at high risk of hepatitis infections upon migrants' return.

The next section will look more into which determinants respondents identified as facilitating transmission from migrants to family members upon return, apart from prevalence levels in migrants' host countries, type of and frequency of return migration as evaluated in the previous section. Although respondents proved to have limited knowledge about specific conditions contributing to such transmissions, they did identify some important factors specific to the Georgian society that clearly enhance the risk of disease transmission from returning migrants to partners in Georgia.

### *Structural determinants*

As demonstrated in the framework (fig. 3), structural determinants within the migrants' home community, such as access to health care, stigma towards people living with infectious diseases such as HIV/AIDS or TB, and sexual gender rights may facilitate disease transmission from migrants to partners and family members at home.

Stigma within Georgian communities towards people with HIV and STDs, was as expected in hypothesis 2, identified by respondents as hindering returned migrants in seeking treatment upon return. In fact, according to the field officer at World Vision, returned migrants often experience problems with reintegration into their home-communities, as migrants often are perceived to have acquired HIV or STDs abroad. Such stigmatisation naturally limits migrants' willingness to get tested, especially at clinics where it is evident what they are being tested for:

*"(…) Most of them* (returned Georgian migrants) *have been infected by STIs. So usually when they are coming back they don't want to visit doctors because these are things of confidentiality. (…) in the frame of the mobility project we have established health care cabinets in our target regions, which work for HIV awareness raising of the community and the migrants are going to our cabinets to receive confidential or face to face consultation, because going to the AIDS centre for testing, it is clear why you are going to the doctor, and in health care cabinets they could go there with keeping their confidentiality without visibility"* – Mobility project manager, World Vision Georgia.

Thus, in communities in which HIV/STD infected people are stigmatised, the risk of STD/HIV/hepatitis transmission by a returned migrant to a partner is further enhanced as migrants might not want to undertake testing or treatment in fear of being stigmatised. Stigma, combined with lack of access to confidential health care may as such indirectly contribute to disease transmission from returned migrants to partners in Georgia.

The World Vision representatives further identified health care access in migrants' home communities, as influencing the risk of mother-to-child transmission. Although very few infants in Georgia are born with HIV due to the universal access to prevention of mother to child transmission (PMTCT) of HIV services (Tsertsvadze et al., 2008), some cases are still found in remote areas where pregnant women come to consultation too late, maybe only at labour;

*"(…) yeah we have in Samtskhe-Javakheti, we have such kind of cases and men were migrating in Russia and when he came back he transmitted this infection to his wife, but he did not know about his status neither his wife and when she was pregnant she visited doctor in fifth or sixth month of her pregnancy and the child was born with HIV. And we have three or four such cases"* – Mobility project manager, World Vision Georgia

Thus, as stated in hypothesis 2, the access to health care services in migrants' home communities is thus not only influencing the risk of HIV transmission to partners, but also to migrants' children through mother-to-child transmission. The above case is also an example of that migrants' own knowledge about their infections is a crucial factor

influencing the chance of disease transmission upon return. As seen in the frameworks (fig. 2 and 3), the awareness, or lack of awareness, is related to migrants' general health knowledge, but also to their access to and utilization of health care services in destination countries and upon return.

Thus, despite difficulties in establishing place of disease transmission and hence identifying cases of patients infected by a returned migrant, it seems clear from respondents' experiences that migrant-sending families are at higher risk of being infected by sexually transmitted and/or blood borne infections (and to some extent to TB/MDR TB) than non-migrant families. However, the significance of the risk is conditioned by the type of migration, migrant's host country and to some extent, the frequency of return. Other conditions identified as reinforcing disease transmission from returned migrants to family members were pre-disposing factors such as migrants' own awareness of infections and structural determinants in both destination countries and home communities, such as easy accessible health care services and stigma.

Unfortunately, information about the practice of safe sex between migrants and partners were not provided, although several respondents confirmed that the use of condoms were in general low among regular partners in Georgia, also among regular partners of high-risk groups such as injecting drug users and commercial sex workers. This might also imply that migrants practicing injecting drug use or working as commercial sex workers abroad are likely to transmit sexually transmitted infections to regular partners in Georgia through unprotected sex. The low practice of safe sex in rural communities in Georgia has already been established in the literature review, and migrant-sending families in rural areas are thus likely to be at higher risk of contracting sexually transmitted diseases from migrants than migrant-sending families in urban areas. This enhanced risk of transmission is as discussed also related to the more limited access to health care services in rural than in urban areas.

### *Regional prevalence levels*

One of the sub-questions of the study was concerned with whether areas in Georgia with high levels of out-migration are associated with higher HIV/STD/hepatitis/TB prevalence rates than low out-migration areas. Little evidence for this was found in the literature review, but according to representatives from World Vision, WHO, GHPP, GFATM and the AIDS centre, Tbilisi and regions bordering Russia, Abkhazia and Turkey experience high HIV rates partly due to high levels of in- and out-migration by Georgian migrants. However, HIV prevalence in these regions are not only explained by human migration by Georgians, but also by drug trafficking (especially in Adjara), large IDP populations and ongoing conflicts in Samegrelo and Abkhazia, and also by immigration of Ukrainian and Russian prostitutes to seaport cities in the Adjara region.

In the case of TB, migration was not identified as a factor explaining different regional prevalence levels. According to the Head of the Epidemiology department at the TB centre, there is no big statistical variation in regional prevalence levels within Georgia and the small variations are mainly caused by population density, prison- and internally displaced populations and access to testing.

## Proposed policy-recommendations

Towards the end of the interviews, respondents were asked what policy recommendations they would propose that would contribute to limit the spread of infectious diseases, such as HIV and TB within Georgia.

### *Migrant-specific health interventions and better migration regulations*

So far, migrants have not been considered as a most-at-risk population in Georgia. As a result, out-going and returning migrants are not being targeted specifically with preventative health information or testing as IDUs and CSWs are. However, when asked during interviews whether migrants should be better targeted with counselling, preventative care and testing, many respondents agreed. According to the doctors and the head of the epidemiology department at the AIDS centre, both migrants and their families should ideally be targeted with information about HIV as they were considered

to be more at risk than non-migrant populations. Also the Head of the Health Department of Georgia Red Cross Society and the representatives of World Vision were of the opinion that Georgian migrants should be targeted by preventative interventions, both before and after migration.

Although migrant-specific health interventions were envisaged by most respondents who were in direct contact with patients or returned migrants, some respondents pointed out the difficulties in targeting Georgian migrants due to the lack of migration regulations in Georgia. Further, some respondents emphasised that the lack of information about the migration phenomenon in Georgia made it difficult to state whether migrants should be prioritised by health interventions, or not. Considering the difficult financial situation of the Georgian health care system and its reliance upon external funding for management of HIV and TB, it might in fact be difficult to advocate for better targeting of migrants within the health care system, especially given the lack of information about the migrant-disease relationship.

A need for better monitoring and regulation of international migration to and from Georgia was clearly expressed by the representatives of World Vision, who also envisaged a migration policy linked with HIV problems:

*"First of all we have to advocate for adopting policies regarding migration, because as we have mentioned, there is no regulations against migration. And also to link these two problems, migration is a broad topic right, so we are not working in all directions, but we are working in the direction which is linked to health, for better health for migrants. And we want to raise this issue among government representatives who are responsible for this issue, to adopt policy or to have some kind of regulations regarding migration and some how to link it with HIV problem"* – Mobility Project Manager, World Vision Georgia

With better regulation of international migration, fewer migrants would be illegal and this could help to protect their rights and thus their health while abroad. Better regulation would facilitate better disease surveillance among migrant populations, although testing of immigrants may not be envisaged given the current HIV/AIDS legislation stating that HIV testing is voluntary and confidential.

### *De-criminalisation of drug use*

Several interview participants argued that the most important policy challenge was the criminalisation of drug users by law. The current strict law on drug use is hindering effective targeting of IDUs with counselling and preventative care and encourages unsafe injecting practices:

*The law is too strict. People are afraid to say they are drug users and they are afraid to go to the testing centres, they don't trust the people there, they are afraid they will go to the police and say that this person is a drug user. This is the main point, the law should be changed on drug use"* - Head of Epidemiology Department, AIDS centre

*"(…) we want the narcotics law to be changed, we are trying to decriminalise it. A simple example; if they have syringe, they will use it, they don't cost much, it costs peanuts, but until now, syringes in pockets of potential users is evidence. That's why they are afraid to go to the pharmacy, they are trying to buy it together with other drugs, like penicillin, just to prove that they are not… (drug users) also, that's why it is very difficult to reach this population, because they are hiding, they are afraid"* - Global Fund, project director

Although this policy recommendation is not directly related to the migrant-disease relationship, a more liberal law on drug use in Georgia could possibly lead to that more returned migrants infected by drug use abroad went to seek care upon return to Georgia. Better knowledge of HIV among Georgian drug users as a result of better access to them with health advocacy, could also possibly contribute to safer injecting practices among Georgian IDUs who migrate to HIV prevalent countries like Russia and Ukraine.

## Limitations and recommendations for future research

The present study has documented some of the conditions that make international migration affect the health of Georgian migrants abroad and conditions that make transmission of infectious diseases to family members upon return likely. However, the study has limitations in terms of the limited reliability of migration and health statistics, but also in terms of certain weaknesses related to the collection of qualitative data. First of all, all interviews were undertaken in the capital of Tbilisi. In future studies, it would be beneficial to interview doctors or health care workers in other out-migration regions of Georgia and in more remote migrant-sending communities. This would allow comparison of regional and rural-urban differences in terms of doctors' experiences with patients infected abroad. Further, in this study, only HIV/AIDS and TB doctors were interviewed. This resulted in somewhat less information about STD or hepatitis prevalence among returned migrants. It would thus be useful in further studies to interview general practitioners at health care clinics or dispensaries who also undertake STD and hepatitis tests. Another limitation is that no migrants were interviewed. Interviews with returned migrants, in both rural and urban communities, could have provided useful knowledge about conditions that enhanced their vulnerability to infectious diseases abroad and how they considered the risk of transmitting infections to family members upon return to Georgia.

The research provided limited insight into the theories underpinning the migration-health relationship. Future research should ensure better consideration of migrant selectivity and its effects upon health outcomes, in order to test the "healthy migrant effect".

## Chapter 5: Conclusion and recommendations

The Republic of Georgia has experienced large emigration flows over the last decades, of which a large part consists of labour migrants seeking better economic opportunities in other former Soviet Union or Western countries. At the same, the country has been burdened by rising prevalence levels of tuberculosis, sexually transmitted diseases, viral hepatitis and an emerging HIV/AIDS epidemic. While the spread of these infectious diseases is related to a disintegration of the Georgian health care system after independence, rising poverty levels, limited financial and/or geographic access to health care services, injecting drug use and internally displaced populations, international population movement has also contributed to rising prevalence levels.

This study has tried to address the information gap about the relationship between international migration of Georgian migrants and the spread of infectious diseases within the country. The results clearly demonstrate the complexity of the relationship between migration and health and how Georgian migrants' vulnerability to infectious diseases is influenced by a whole range of individual- and structural-level factors during each phase of their migration experience.

The first part of the research question asked under what conditions international migration affects the vulnerability of Georgian migrants to infectious diseases during the migration period. The findings clearly indicate increased vulnerability to sexually transmitted and blood borne diseases among certain types of Georgian migrants. The vulnerability is closely related to the epidemiological environment of the host country, but also to a range of social and individual level determinants. The extent to which these determinants, such as access to health care services, living conditions and feelings of loneliness, negatively influence disease vulnerability, was found to depend upon the type and social dynamics of migration. In particular, undocumented migrants travelling alone to "high risk countries" such as Russia and Ukraine, were found to be at high risk of infections transmitted through risky sexual or drug-using behaviour. Characteristics of migrants, such as male gender and low levels of health-knowledge, were also identified as pre-disposing factors relating to disease vulnerability through risk behaviours.

Thus, while migration as such was not found to increase migrants' disease vulnerability, rather migrants' characteristics and conditions related to certain migration experiences increased exposure to sexually transmitted and blood borne infections, such as HIV/AIDS and hepatitis C. Little evidence was found establishing a correlation between migration and higher vulnerability to tuberculosis, except in the case of imprisonment of undocumented migrants in Russia and Ukraine.

The second part of the research question was concerned with under what conditions international migration affects the vulnerability to infectious diseases among migrants' non-migrating families at the point of migrants' return to Georgia. According to the findings, the risk of disease transmission from migrants to non-migrating partners also depends upon the specificity of the migration experience, such as from which country the migrant return (potential for epidemiological bridging) and what type of migrant who returns. An irregular, male labour migrant returning from Russia or Ukraine is clearly more likely to transmit infections to family members/partners than for example a Georgian student returning from a Western European country whose exposure to communicable diseases has been limited. Migrants' family members' vulnerability to infectious diseases associated with the migrant's return also depends upon the existing level of exposure to infectious diseases in Georgia. As the level of TB exposure in Georgia is high, the return of migrants from TB prevalent countries does not seem to enhance vulnerability noticeably among migrants' families. Return from STD/HIV/hepatitis prevalent countries may in contrast have negative impacts upon non-migrating partner's (especially female partners') vulnerability to sexually transmitted diseases.

This vulnerability to STDs seem to be conditioned by migrants' and migrants' partners' pre-existing health knowledge, in addition to social determinants within the migrant sending community. Limited health care access in rural areas of Georgia, as well as stigma associated with STDs, were factors hindering migrants in seeking testing or treatment upon return. Further, limited use of condoms, especially in rural areas, and Georgian women's limited ability to negotiate utilization of condoms, enhance migrants' female partners' vulnerability to STDs.

While the research found little evidence for any direct relationship between regional disease prevalence levels and regional levels of out-migration in Georgia, higher HIV

prevalence rates in regions bordering Russia, Abkhazia and Turkey was partly explained by high levels of migration between Georgia and these areas.

## Implications and recommendations

The findings suggest that it is the return of irregular male labour migrants from Russia and Ukraine which poses the biggest threat to the Georgian population health. Fortunately, during recent years Georgian migration patterns have changed, directing larger parts of the migration outflows away from Russia and Ukraine and towards Western countries with lower prevalence levels of infectious diseases. In the long run, this new direction of Georgian emigration flows may have a positive impact on the incidence levels of sexually transmitted and blood borne infections in Georgia. At the moment however, hundreds of thousands of Georgians are still working illegally in Russia and Ukraine, which implies a potential for disease transmission to the Georgian population as they return. As such, measures to ensure that return migrants from these countries receive voluntary testing, counselling and treatment, free of charge at the point of return, should be ensured. Previously detained migrants returning from FSU countries should also be targeted with TB testing. This would be an investment in Georgian public health by reducing the potential for an upsurge in the spread of HIV/AIDS, STDs, hepatitis and to some extent, TB, resulting from return migration.

The results did not provide a clear answer to the extent to which regions with high out-migration rates experience higher prevalence levels of infectious diseases. In order to obtain such results, screening of all out-going and returning migrants would be necessary. The value of screening all Georgian migrants at departure and entry is however likely to be limited, it creates human rights implications and would not be financially feasible given the limited resources of the Georgian public health care system. Further, given the fact that Georgian migrants make frequent return visits, an effective system would require repeated screenings of every Georgian migrant, something which is unlikely to be cost-effective.

In order to ensure a better overview of the extent to which international migration affects Georgian public health, the government should ensure that all health care personnel routinely collect data on patients' migration history during the intake process, as practiced by the AIDS centre. Although such data is not, as discussed, completely

reliable, it does provide an indication of the extent to which return migration contributes to prevalence and incidence levels of infectious diseases within Georgia.

As discussed, there are certain groups of Georgian migrants (irregular labour migrants and migrants working as prostitutes) within certain destination countries (Russia, Ukraine and Turkey), who are particularly vulnerable to infectious diseases and who create a potential for epidemiological bridging between their destination countries and the Georgian society. To mitigate the negative epidemiological bridging, policy makers should thus focus on better targeting of these migrant groups, before and after departure, with more education on health risks and how these can be prevented. Health education programmes for migrant-sending households would also better enable migrants' partners/families to protect themselves from infections when migrants return.

Better education on health risks within the Georgian school system could also help reduce stigma associated with many infectious diseases and as such contribute to earlier detection of infected patients and reduce the potential for disease dissemination. The ongoing implementation of healthy-lifestyle lectures within Georgian schools is as such as step in the right direction. This might in the long run better enable Georgians to self-prevent infections, either while in Georgia or abroad.

Limited utilization of condoms and Georgian women's reduced negotiating power in terms of sexual rights relative to men were identified as factors potentially facilitating transmission of sexually transmitted diseases from returned male migrants to non-migrating female partners. Reproductive and preventative health education, in addition to efforts to promote gender equality in terms of sexual rights, would hence improve Georgian women's ability to protect themselves from HIV/STIs when migrant husbands or partners return.

Although awareness raising of infectious diseases is crucial for limiting migrants' vulnerability to infections, most of Georgian migrants' health problems abroad are related to their illegal status. As such, regularisation of migration flows through bilateral agreements as proposed by representatives of World Vision Georgia could ensure better protection of migrants' health in destination countries, including access to preventative care and treatment. At the same time, even if Georgia regularise migration flows, the

problem of thousands of workers currently living and working illegally abroad will not be solved. Thus, improved living conditions and access to testing and care for infectious diseases for legal as well as for illegal migrants in destination countries, should be ensured. This is not only a matter of human rights protection, but would also be an investment for the respective destination country in terms of improved public health as the incidence and prevalence of infectious diseases could be reduced.

The need to protect migrants' health within destination countries has recently been expressed by the Council of Europe which recently launched recommendations on mobility, migration and access to health care to member states within the European region (Council of Europe, 2012). The recommendations represent recognition of migrants', including irregular migrants', limited access to or entitlement to health care services in destination countries and the need for member states to take responsibility to ensure equitable access to health care of appropriate quality, also to migrants. The recommendations highlight, as discussed earlier, the importance of collection and monitoring of migrants' health data in order to discover health risks to which migrants are exposed and provide them with effective health services. Further, promotion of knowledge among migrants about their right to health care and improved accessibility to health care services adapted to migrants' needs in terms of language, culture, financial situation etc. are among the recommended points (Council of Europe, 2012). Although these recommendations are not legally binding for member states, they may act as a checklist that countries will strive to follow. In general, the adaption of the recommendations by the Council of Europe also sends an important signal that migrants represent a vulnerable group whose rights and access to health care services must be ensured.

In sum and based on the findings of this study, the following policy recommendations are proposed to Georgian authorities:

10. Provide migrants (documented and undocumented) returning from disease prevalent countries such as Russia and Ukraine, with free, voluntary counselling, testing and treatment of STDs, hepatitis and tuberculosis.
11. Ensure that all health care personnel routinely collect data on patients' migration history and track migrants' and returning migrants' health status.

12. Target “most at risk” migrant groups, such as labour migrants migrating to Russia, Ukraine or Turkey, before departure and after return, with education on health risks and how these can be prevented.
13. Provide health education programmes for migrant-sending households to enable them to protect themselves from infections when migrants return.
14. Implement health education lectures within the Georgian school system focusing on prevention of disease transmission and reproductive health. This would in the long run reduce stigma and contribute to earlier case detection, lowering the potential for disease dissemination.
15. Ensure universal access to primary health care and reproductive health services in Georgia, including rural areas.
16. Promote gender equality enabling women to take responsibility for their own reproductive health.
17. Regulate migration flows in order to limit the number of undocumented Georgian migrants suffering from lack of health care access in destination countries.
18. Push migrant-receiving countries to follow the recommendations of the Council of Europe, ensuring access to and entitlements to health care for migrants, including illegal migrants.

# Appendix

**Table 4**- Distribution of registered HIV cases in Georgia by gender and country of infection, 1989 - 2009

| Country of infection | Male | Male (%) | Female | Female (%) | Total | Total (%) |
|---|---|---|---|---|---|---|
| Armenia | | 0.00% | 1 | 0.18% | 1 | 0.04% |
| Austria | 5 | 0.30% | | 0.00% | 5 | 0.22% |
| Belarus | 6 | 0.36% | 1 | 0.18% | 7 | 0.31% |
| Bulgaria | 1 | 0.06% | | 0.00% | 1 | 0.04% |
| Congo, the Democratic Republic of the | 1 | 0.06% | | 0.00% | 1 | 0.04% |
| Czechoslovakia | 1 | 0.06% | | 0.00% | 1 | 0.04% |
| Ethiopia | 1 | 0.06% | | 0.00% | 1 | 0.04% |
| France | 4 | 0.24% | | 0.00% | 4 | 0.18% |
| Georgia | 262 | 15.72% | 363 | 63.80% | 625 | 27.95% |
| Germany | 15 | 0.90% | 3 | 0.53% | 18 | 0.81% |
| Greece | 7 | 0.42% | 2 | 0.35% | 9 | 0.40% |
| Israel | 1 | 0.06% | | 0.00% | 1 | 0.04% |
| Italy | 3 | 0.18% | 1 | 0.18% | 4 | 0.18% |
| Kazakhstan | 3 | 0.18% | | 0.00% | 3 | 0.13% |
| Kyrgyzstan | | 0.00% | 1 | 0.18% | 1 | 0.04% |
| Moldova, Republic of | 2 | 0.12% | | 0.00% | 2 | 0.09% |
| Netherlands | 3 | 0.18% | | 0.00% | 3 | 0.13% |
| Poland | 2 | 0.12% | 1 | 0.18% | 3 | 0.13% |
| Portugal | 1 | 0.06% | | 0.00% | 1 | 0.04% |
| Russian Federation | 625 | 37.49% | 63 | 11.07% | 688 | 30.77% |
| South Africa | 1 | 0.06% | | 0.00% | 1 | 0.04% |
| Spain | 6 | 0.36% | | 0.00% | 6 | 0.27% |
| Switzerland | 2 | 0.12% | | 0.00% | 2 | 0.09% |
| Tajikistan | 2 | 0.12% | | 0.00% | 2 | 0.09% |
| Turkey | 14 | 0.84% | 11 | 1.93% | 25 | 1.12% |
| Turkmenistan | 1 | 0.06% | | 0.00% | 1 | 0.04% |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Ukraine** | **177** | **10.62%** | **11** | **1.93%** | **188** | **8.41%** |
| **United Arab Emirates** | **2** | **0.12%** | | **0.00%** | **2** | **0.09%** |
| **United Kingdom** | **1** | **0.06%** | | **0.00%** | **1** | **0.04%** |
| **United States** | **15** | **0.90%** | **5** | **0.88%** | **20** | **0.89%** |
| **Unknown** | **503** | **30.17%** | **103** | **18.10%** | **606** | **27.10%** |
| **Uzbekistan** | | **0.00%** | **3** | **0.53%** | **3** | **0.13%** |
| **Grand Total** | **1667** | **100.00%** | **569** | **100.00%** | **2236** | **100.00%** |

(AIDS & Clinical Immunology Research Centre. (2011). *Extract from HIV/AIDS database*. Provided by Otar Chokoshvili ,Epidemiologist, AIDS Center, June, 2011).

**Table 5** – Distribution of number of registered HIV cases in Georgia by country of infection and transmission mode

| **Country of infection** | **MTCT[28]** | **Hetero** | **Homo/Bi** | **IDU[29]** | **Blood Recipient** | **Unknown** | **Total** |
|---|---|---|---|---|---|---|---|
| **Armenia** | | **1** | | | | | **1** |
| **Austria** | | **1** | | **4** | | | **5** |
| **Belarus** | | **2** | | **5** | | | **7** |
| **Bulgaria** | | | | | **1** | | **1** |
| **Congo, the Democratic Republic of the** | | | | **1** | | | **1** |
| **Czechoslovakia** | | | | **1** | | | **1** |
| **Ethiopia** | | **1** | | | | | **1** |
| **France** | | **2** | | **2** | | | **4** |
| **Georgia** | **38** | **399** | **17** | **144** | **11** | **16** | **625** |
| **Germany** | | **5** | **2** | **11** | | | **18** |
| **Greece** | | **3** | | **6** | | | **9** |
| **Israel** | | | | **1** | | | **1** |
| **Italy** | | **3** | | **1** | | | **4** |
| **Kazakhstan** | | **1** | | **2** | | | **3** |

[28] Mother-to-Child-Transmission
[29] Injecting drug use

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Kyrgyzstan** | | | | | | **1** | **1** |
| **Moldova, Republic of** | | | | **2** | | | **2** |
| **Netherlands** | | **1** | **2** | | | | **3** |
| **Poland** | | **3** | | | | | **3** |
| **Portugal** | | **1** | | | | | **1** |
| **Russian Federation** | **4** | **147** | **13** | **522** | | **2** | **688** |
| **South Africa** | | | | | | **1** | **1** |
| **Spain** | | | | **6** | | | **6** |
| **Switzerland** | | | | **2** | | | **2** |
| **Tajikistan** | | | | **2** | | | **2** |
| **Turkey** | | **17** | **4** | **4** | | | **25** |
| **Turkmenistan** | | **1** | | | | | **1** |
| **Ukraine** | | **27** | **3** | **157** | | **1** | **188** |
| **United Arab Emirates** | | **1** | **1** | | | | **2** |
| **United Kingdom** | | | **1** | | | | **1** |
| **United States** | | **7** | | **12** | | **1** | **20** |
| **Unknown** | **6** | **141** | **14** | **440** | **2** | **3** | **606** |
| **Uzbekistan** | **1** | **2** | | | | | **3** |
| **Grand Total** | **49** | **766** | **57** | **1325** | **14** | **25** | **2236** |

(AIDS & Clinical Immunology Research Centre. (2011). *Extract from HIV/AIDS database*. Provided by Otar Chokoshvili ,Epidemiologist, AIDS Center, June, 2011).

**Table 6** – Distribution of registered HIV cases in Georgia by country of infection, gender and transmission mode

| | Male | | | | | | | Female | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Country** | **MTCT** | **Hetero** | **Homo/Bi** | **IDU** | **Blood Rec.** | **?** | **M total** | **MTCT** | **Hetero** | **IDU** | **Blood Rec.** | **?** | **F total** | **Grand Total** |
| **Armenia** | | | | | | | | | 1 | | | | 1 | 1 |
| **Austria** | | 1 | | 4 | | | 5 | | | | | | | 5 |
| **Belarus** | | 1 | | 5 | | | 6 | | 1 | | | | 1 | 7 |
| **Bulgaria** | | | | | 1 | | 1 | | | | | | | 1 |
| **DRC** | | | | 1 | | | 1 | | | | | | | 1 |
| **Czechoslovakia** | | | | 1 | | | 1 | | | | | | | 1 |
| **Ethiopia** | | 1 | | | | | 1 | | | | | | | 1 |
| **France** | | 2 | | 2 | | | 4 | | | | | | | 4 |
| **Georgia** | 19 | 77 | 17 | 141 | 6 | 2 | 262 | 19 | 322 | 3 | 5 | 14 | 363 | 625 |
| **Germany** | | 2 | 2 | 11 | | | 15 | | 3 | | | | 3 | 18 |
| **Greece** | | 1 | | 6 | | | 7 | | 2 | | | | 2 | 9 |
| **Israel** | | | | 1 | | | 1 | | | | | | | 1 |
| **Italy** | | 2 | | 1 | | | 3 | | 1 | | | | 1 | 4 |
| **Kazakhstan** | | 1 | | 2 | | | 3 | | | | | | | 3 |
| **Kyrgyzstan** | | | | | | | | | | | | 1 | 1 | 1 |
| **Moldova** | | | | 2 | | | 2 | | | | | | | 2 |
| **Netherlands** | | 1 | 2 | | | | 3 | | | | | | | 3 |
| **Poland** | | 2 | | | | | 2 | | 1 | | | | 1 | 3 |
| **Portugal** | | 1 | | | | | 1 | | | | | | | 1 |
| **Russian Federation** | 4 | 89 | 13 | 519 | | | 625 | | 58 | 3 | | 2 | 63 | 688 |
| **South Africa** | | | | | | 1 | 1 | | | | | | | 1 |
| **Spain** | | | | 6 | | | 6 | | | | | | | 6 |
| **Switzerland** | | | | 2 | | | 2 | | | | | | | 2 |
| **Tajikistan** | | | | 2 | | | 2 | | | | | | | 2 |
| **Turkey** | | 6 | 4 | 4 | | | 14 | | 11 | | | | 11 | 25 |
| **Turkmenistan** | | 1 | | | | | 1 | | | | | | | 1 |
| **Ukraine** | | 17 | 3 | 156 | | 1 | 177 | | 10 | 1 | | | 11 | 188 |
| **United Arab Emirates** | | 1 | 1 | | | | 2 | | | | | | | 2 |
| **United Kingdom** | | | 1 | | | | 1 | | | | | | | 1 |
| **United States** | | 2 | | 12 | | 1 | 15 | | 5 | | | | 5 | 20 |
| **Unknown** | 6 | 43 | 14 | 438 | | 2 | 503 | | 98 | 2 | 2 | 1 | 103 | 606 |
| **Uzbekistan** | | | | | | | | 1 | 2 | | | | 3 | 3 |
| **Grand Total** | 29 | 251 | 57 | 1316 | 7 | 7 | 1667 | 20 | 515 | 9 | 7 | 18 | 569 | 2236 |

(AIDS & Clinical Immunology Research Centre. (2011). *Extract from HIV/AIDS database*. Provided by Otar Chokoshvili ,Epidemiologist, AIDS Center, June, 2011).

**Attachment 1** - Interview guide example

General Interview guide for the Georgian AIDS and Clinical Immunology Research Center

## Introduction

Thank you very much for your time and willingness to participate in this interview. (I will briefly introduce myself, the purpose of my research and explain the practicalities of the interview before I start the interview).

My name is Ann Louise Lie and I am doing research for the Maastricht Graduate School of Governance in the Netherlands. The purpose of this interview is to gather information about the relationship between international migration and the spread of infectious diseases, such as HIV/AIDS, sexually transmitted diseases, hepatitis and tuberculosis in Georgia. This research will contribute to a European Commission funded research project about migration in Georgia, administered by Maastricht University in cooperation with the International Centre for Social Research and Policy Analysis in Tbilisi.

All information you provide can be kept anonymous if you so wish. This means that your interview responses only will be shared with the research team members and we will make sure that any information we use in our reports does not identify you as a respondent. Would you please let me know how you would like to be identified in reporting about our conversation? (By name, by organisation, totally anonymous, etc.)

Your participation in this interview is voluntary, you do not have to answer any questions that you do not want or cannot answer and you may choose to end the interview at any time. The interview will be recorded and I will also be taking notes during the interview in order to remember valuable information. The interview will last for about 1 hour.

Do you have any questions before we start?

**Demographic information**

1. Can you briefly introduce yourself and tell me what your main responsibilities at the centre are?
    a. *What is your level of interaction with the patients?*
2. How long have you been working with this at the centre?

**About the work of the centre and about the epidemiological situation of HIV/AIDS, Hepatitis, Sexually transmitted infections in Georgia**

1. To start with, can you tell me a little bit more about the type of services you offer at the centre?
    a. *What kind of infectious diseases does your clinic most commonly encounter and treat?*
    b. *What kind of testing do you offer? How does testing occur (only in the clinic, in mobile units, during occasional visits to NGOs, etc.)?*
    c. *How much must clients pay to get tested?*
    d. *Do you offer any support services for patients and their families?*
2. Can you explain to me how your intake process functions?
    a. *Do new patients directly contact your centre for admission, or do general practitioners refer them to you?*
    b. *What kind of information do you collect from patients during the intake process?*
3. How widespread is voluntary testing in Georgia?
    a. *Who usually goes to get tested?*
    b. *Do you know why people choose not to get tested? (stigma, distrust of healthcare system, costs, lack of knowledge)*
4. Do you encourage certain groups of people to get tested?
    a. *If no; why not?*
    b. *If yes; which groups and why?*
    c. *Are there other groups you think that should be encouraged to get tested? (f.ex. Return migrants?)*
        i. *If yes; why?*
5. What do you know about how the spread of HIV/AIDS, hepatitis and STIs has evolved in Georgia since the end of the 1980s?
        i. *What are common STIs in Georgia?*
        ii. *Have you noticed any significant changes in patterns and prevalence levels over the last five years?*
        iii. *What are the main transmission modes, and what percentage of patients contracted the disease in this way?*
        b. *Do you think there might be underreporting of the real prevalence levels?*
            i. *If yes; why?*
6. According to your experience and knowledge, what are the main drivers of the spread of HIV and other infectious diseases within Georgia?
    a. *Can you identify specific conditions within the Georgian society that facilitate the spread of infectious diseases?*

   i. *(I was thinking about factors such as lack of knowledge about HIV/AIDS, stigma, high healthcare costs, etc. )*
   ii. *Do these differ by disease?*
7. Can you tell me who the main risks groups of HIV/AIDS/STIs and Hepatitis are?
   a. Do these groups differ by disease?
8. What are the most common ways of becoming infected by HIV/AIDS or other STIs in Georgia?
   a. *Are there differences in the ways in which most women and most men become infected?*
   b. *Do these transmission methods differ by age, ethnic group, or other demographic factors?*

**Relation between the spread of HIV/AIDS/STIs/hepatitis and international migration**

1. Can you describe the demographic profile of a typical patient with HIV/AIDS/STIs and/or hepatitis?
2. Do you know if any of your patients with have been infected in another country than Georgia?
   a. *If so, which countries?*
   b. *Among those infected in other countries, were there mostly men or women?*
   c. *Do the countries of infection change by the gender of the patient?*
   d. *Can you tell me more about how they usually became infected in these countries?*
      1. *Specific examples?*
3. From your experience, are Georgians who are working or travelling abroad facing higher risk of contracting an infectious disease?
   a. *If yes, why?*
      i. *Are men and women who travel, equally vulnerable to infections?*
      i. *Do you think that there are specific conditions that migrants face abroad that would facilitate higher transmission? (I.e., lack of access to healthcare and prevention, adoption of sexual risk behaviour, sharing of needles, etc.)*
   b. *If no; why?*
4. Do you commonly see other kinds of diseases in conjunction with HIV/AIDS?
   a. Do these diseases differ by where the individual has lived?

**The relation between the spread of HIV/AIDS/STI and return migration**

1. Are some areas within Georgia more affected by HIV/AIDS and other infectious diseases than others?
   a. *If yes;*
      i. *Why?*
      ii. *Which areas?*
   b. *What factors influence disease spread by region?*
2. Does the return of Georgian migrants influence the spread of HIV/AIDS/STI and other infectious diseases within the migrant's family?
   a. *If yes, why?*
   b. *Who are most at risk of infection when the migrant returns?*

   i. *How do these individuals usually become infected?*
3. Do you have examples of patients who have become infected by a partner who has returned from travel/work abroad?
   a. *How common is this?*

**Prevention of and knowledge about HIV/AIDS/STIs/hepatitis**

1. How would you describe the general level of knowledge about HIV/AIDS and other sexually transmitted diseases within Georgian society?
2. How are these diseases regarded in Georgia? For example, are people who are infected stigmatised?
   b. *How does the public perception about these diseases influence prevention, detection, and treatment of the disease?*
3. How is information about these diseases, their prevention methods and transmission modes, provided to the public?
   a. *Education in schools? / Campaigns? / GPs?*
4. Do you have the impression that people take HIV/AIDS/STIs more seriously in communities with high levels of out-migration?
   a. *Do you know of any community-level initiatives for raising awareness about these diseases?*
5. Do you think information about infectious diseases such as HIV/STIs should target migrants and their families specifically?
   a. *IF no; why not?*
   b. *IF yes;*
      i. *Why?*
      ii. *How could this best be done?*

**Policy changes and recommendations**

1. In your opinion, do you think policy changes are necessary in order to address the spread of infectious diseases in Georgia?
   a. *What kind of necessary policy changes can you think of?*
   *b. Who do you think should be responsible for developing and implementing those changes?*
2. Can you recommend to me some sources of information and/or other people I should talk to in order to get more information about infectious diseases and migration in Georgia?

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