



TECHNICAL REPORT

Migrant health: HIV testing and counselling in migrant populations and ethnic minorities in EU/EEA/EFTA Member States

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Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral therapy
CBO	Community-based organisation
CDC	US Centers for Disease Control and Prevention
CITC	Client-initiated testing and counselling
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EFTA	European Free Trade Association
EU	European Union
GP	General practitioner
HIV	Human immunodeficiency virus
IDU	Injecting drug user
ILO	International Labour Organisation
IOM	International Organization for Migration
IUSTI	International Union against Sexually Transmitted Infections
MSM	Men who have sex with men
NGO	Non-government organisation
PITC	Provider-initiated testing and counselling
SONHIA	Study of newly diagnosed HIV infection amongst Africans in London
UK	United Kingdom
UNAIDS	UN Joint Programme on HIV/AIDS
UNHCR	Office of the United Nations High Commissioner for Refugees
US	United States
WHO	World Health Organization

Summary

This report presents the key findings of a review of HIV testing and counselling policy and practice in migrant and ethnic minority populations in European Union (EU), European Economic Area (EEA) and European Free Trade Association (EFTA) countries.

The report aims to provide an overview of the current situation with respect to HIV testing and counselling for migrant populations and ethnic minorities in the region in order to inform future policy, research and practice to improve access to services for migrant populations and ethnic minorities.

The report is based on information gathered through a systematic review of the literature on HIV testing and counselling in these populations in high-income countries; a review of international and national policies and guidelines on HIV testing and counselling; a survey of EU, EEA and EFTA Member States; and individual interviews and group meetings with key government and non-government stakeholders. It is organised in five sections:

- Section 1 briefly describes the review background and methodology.
- Section 2 summarises findings about HIV prevalence and risk factors in migrant populations and ethnic minorities.
- Section 3 provides an overview of international, regional and Member State policies, guidelines and recommendations on HIV testing and counselling in migrant populations and ethnic minorities.
- Section 4 highlights challenges and barriers to HIV testing among migrant and ethnic minority populations.
- Section 5 outlines approaches to HIV testing in migrants and ethnic minorities. It also considers how to increase uptake of testing in these populations.

The following summarises the key findings of this study. It also highlights suggested actions to improve access to HIV testing and counselling for migrant populations and ethnic minorities in the region.

- Migrant populations represent a significant proportion of reported cases of HIV and AIDS in Europe. Higher HIV prevalence among some groups of migrants than among the general population is attributed to epidemiological patterns in countries of origin and to increased vulnerability in countries of destination. Increased vulnerability to HIV among migrants and ethnic minorities is due to a range of social, economic, cultural and legal factors. Groups identified as most vulnerable to HIV include migrant women, migrant and ethnic minority men who have sex with men, and heterosexual migrant and ethnic minority men who engage in high-risk behaviours.
- International and regional policies and guidelines highlight the individual and public health benefits of HIV testing. They also stress the importance of early detection of HIV and of linking testing with treatment, care and support. As the availability of antiretroviral therapy (ART) has expanded, international recommendations have shifted from an emphasis on voluntary testing and counselling towards offering systematic or routine testing, in order to identify as many people who are in need of treatment as possible.
- Policies and guidelines at international, regional and national level highlight increased HIV risk and vulnerability among migrant and ethnic minority populations. In their policies and guidelines, some European countries refer only to 'migrants'. Others specify particular migrant populations, especially people originating from high-prevalence countries in sub-Saharan Africa. Migrants from Eastern Europe, Russia, Ukraine, the Caribbean, Asia and Latin America are also identified as groups at risk. Only Romania and the UK identify specific minority groups as being particularly vulnerable to HIV. Not all countries that acknowledge migrants and ethnic minorities as being at risk for HIV infection explicitly recommend HIV testing for these populations. In Europe, 15 countries recommend HIV testing for migrants. One country recommends HIV testing for ethnic minorities.
- Recommendations on HIV testing and counselling can be broadly categorised into two types. First, there are general population approaches which include routine opt-out testing in antenatal care and other healthcare settings. Second, there are targeted approaches specifically directed at migrant and ethnic minority populations which include promoting and providing testing in community settings. Some countries have adopted a mixed approach, offering routine testing in healthcare settings in most affected communities.
- 15 European countries recommend HIV testing for migrants. HIV testing for migrants and asylum seekers is offered prior to entry in three European countries as a part of general health screening. WHO Regional Office for Europe guidelines explicitly state that mandatory HIV testing for migrants and asylum seekers upon arrival violates basic rights and ethical principles and cannot be justified on public health grounds.
- Late diagnosis is reported to be higher among some migrant and ethnic minority populations. Barriers to HIV testing in these populations include legal status, discrimination and stigma, culture and language, community knowledge and attitudes about HIV and healthcare, and poor living and working conditions.

- Fears that a diagnosis of HIV will result in refusal of application for residency or deportation and in rejection by the community are a significant deterrent to testing. Legal status also affects access to healthcare. Promotion of HIV testing for migrants who are not entitled to healthcare raises serious ethical issues. ART should be available for everyone who is HIV positive, on both human rights and public health grounds, and mechanisms for ensuring access to treatment for those tested positive should be put into place.
- Greater efforts are needed to increase uptake of HIV testing in migrant and ethnic minority communities to reduce late diagnosis and HIV-related mortality. Some will be reached through general population approaches. For example, various studies indicate that there is no difference in the uptake of antenatal testing between migrant and non-migrant women, making universal application of HIV testing of all women attending antenatal care an effective and non-discriminatory way of reaching pregnant migrant women. However, innovative strategies are required to reach those who are least likely to seek healthcare.
- Innovative approaches include promoting engagement with communities and providing rapid HIV testing in community settings, through outreach, community-based organisations, and places where people work or spend their leisure time. Such approaches can increase both the availability and uptake of testing. However, such programmes must be designed in ways that guarantee that migrants and ethnic minorities are not stigmatised, that ensure the quality of testing, and that link those who test positive for HIV to treatment, care and support services.
- There appear to be few initiatives specifically targeting heterosexual men in migrant or ethnic minority communities. Strategies proposed to reach these men include extending opening hours at testing sites and conducting outreach activities in work, religious and community settings. In some communities it may be more appropriate to reach men through women. Strategies proposed include partner testing and couple testing during antenatal care. Offering HIV testing at gay pride events and other venues is recommended to increase uptake among migrant and ethnic minority men who have sex with men. However, reaching migrant and ethnic minority men who have sex with men is a particular challenge in communities where homosexuality is stigmatised and these men have difficulty being open about their sexuality.

1 Introduction

1.1 Background

HIV infection remains an important public health issue in Europe. The rate of newly-diagnosed HIV cases reported more than doubled from 44 per million in 2000 to 85 per million in 2009. These figures are based on the 46 countries that consistently reported HIV surveillance data during this period [ECDC 2010a].

Migrant populations represent a significant proportion of reported cases of HIV infection and of AIDS in Europe. Around 38% of cases of heterosexual transmission are diagnosed in individuals originating from countries with generalised epidemics [ECDC 2010a].

Migrant populations, mainly from sub-Saharan Africa, represent a considerable and growing proportion of reported cases of HIV and AIDS in EU countries, Norway and Iceland between 1999 and 2006 [ECDC 2010b]. In 2009, as during much of the prior decade, the proportion of migrants from sub-Saharan Africa among cases of heterosexual and mother-to-child transmission was high. A significant proportion of diagnoses of HIV among men who have sex with men were also found in migrants, in particular those from Latin America and the Caribbean [ECDC 2010a].

Testing and counselling are critical first steps to accessing HIV treatment and care. Increasing uptake of HIV testing and counselling is a priority for the EU, as is providing specific HIV services for migrant communities [ECDC 2008; ECDC 2009; ECDC 2010c; ECDC 2010d].

In 2007, ECDC conducted a study on HIV testing policies, practices and barriers in the EU [unpublished]. This study, and others [ECDC 2010a], found that late diagnosis of HIV infection is reported to be more common among migrants, suggesting that targeted action is required to increase uptake of HIV testing in migrant populations.

In response, a review was conducted with the following objectives:

- To review policies, guidelines and approaches to HIV testing and counselling in migrant and ethnic minority populations in EU, EEA and EFTA countries.
- To assess implementation of policies and guidelines.
- To identify factors that affect access to HIV testing and counselling in these populations.

The main findings and conclusions of this review are set out in this report. The findings and conclusions have also informed ECDC guidance to increase the uptake of HIV testing in Europe [ECDC 2010c].

1.2 Objectives and methodology

The main objectives of the study were to:

- review HIV testing and counselling strategies targeting migrant populations and ethnic minorities in high-income countries;
- review EU, EEA and EFTA Member State recommendations on HIV testing and counselling in migrant populations and ethnic minorities and evaluate implementation of these recommendations;
- identify barriers and challenges to implementation of Member State recommendations;
- identify successful approaches used to increase uptake of testing and counselling and to ensure high quality services.

To meet these objectives, the study:

- reviewed the literature on HIV testing and counselling in migrant populations and ethnic minorities in high-income countries;
- reviewed international policies and guidelines on HIV testing and counselling;
- reviewed the policies and recommendations of EU, EEA and EFTA countries on HIV testing and counselling in migrant populations and ethnic minorities;
- conducted a survey of EU, EEA and EFTA Member State representatives;
- conducted individual semi-structured interviews and group interviews with key government and non-government stakeholders.

The study methodology is described in more detail in Annex 2. The results of the literature review are summarised in Annex 3. Although this study did not systematically review the literature on HIV prevalence, risk factors and vulnerability in migrants and ethnic minorities, these issues were highlighted in some of the literature on HIV testing and counselling in these populations in high-income countries. As a result, a brief summary of these issues has been included with the findings of this study.

2 HIV in migrant populations and ethnic minorities

2.1 HIV prevalence and epidemiology

A number of studies describe higher HIV prevalence among migrant and ethnic minority populations. Some refer generically to higher HIV prevalence among migrants originating from countries with a high prevalence of HIV. Others refer to higher HIV prevalence in specific groups – including people from sub-Saharan African in Europe [Monge-Maillo, 2009; Lohse, 2005; Perez-Molina, 2009]; sub-Saharan Africans, Latinos and African-Americans in the US [Vissman, 2009; Foley, 2005; Levy, 2005; Lopez-Quintero, 2005]; and black African and Caribbean populations in the UK [Chadborn, 2006; Prost, 2007; Prost, 2008]. The literature also suggests that female migrants from sub-Saharan Africa in Europe [ECDC 2010a] and ethnic minorities such as African-American women in the US [Hariri and McKenna, 2007] suffer from a disproportionate burden of HIV infection.

High HIV prevalence among migrants is attributed to two factors. The first relates to epidemiological patterns in countries of origin with HIV infection acquired in the country of origin. The second relates to risk behaviour and vulnerability with HIV infection acquired in the country of destination.

Most studies relating to HIV among sub-Saharan African migrants refer to infections being acquired in the country of origin. These include studies in Denmark [Lohse et al, 2005], France [Delpierre et al, 2007], Spain [Monge-Maillo et al, 2009; Perez-Molina et al, 2009], the UK [Prost et al, 2007; Sadler et al, 2006; Flowers et al, 2006; Sinka, 2003] and Canada [Zencovich et al, 2006; Mitra et al, 2006; MacPherson et al, 2006].

However, some describe evidence showing that people of sub-Saharan African origin are becoming infected by HIV in EU countries. In the UK, for example, as many as a quarter of HIV infections diagnosed among heterosexuals and half of infections among men who have sex with men from sub-Saharan Africa may have been acquired in the UK [Burns et al, 2009]. There is also evidence of acquisition of HIV infection in Europe among men from Latin America and the Caribbean who have sex with men. In Spain, for example, seroconversion studies indicate that a large proportion of HIV-positive Latin American men who have sex with men have been infected in Spain [Caro-Murillo et al, 2009]. Several studies also highlight the issue of HIV acquisition among migrants during return visits to their country of origin [Fenton et al, 2001; Kramer et al, 2008].

These findings are important because they challenge the assumption that late HIV diagnosis among migrants is mainly due to people with HIV arriving in a country with already advanced disease. This explanation may be a contributing factor to late HIV diagnosis among migrants but it is not the only factor. There is evidence that some migrants diagnosed late arrived several years before their first HIV test.

2.2 Risk factors and vulnerability

The literature identifies a range of social, economic, cultural and legal factors that increase vulnerability to HIV infection among migrants and ethnic minorities. Increased vulnerability is related to high-risk behaviours and to lack of access to health services.

- Social factors include stigma, lack of community support and isolation, racism and discrimination.
- Economic factors include unemployment, limited education and poverty.
- Cultural factors include language barriers, religion, cultural beliefs about health and HIV, the roles of men and women and sexual behaviour, attitudes towards homosexuality, and perceptions about health services. Low self perception of HIV risk is also noted.
- Legal factors include lack of entitlement to health services for undocumented migrants in some countries, and fear that disclosure about HIV will adversely affect legal status or visa application processes.

Particular groups are highlighted as being especially vulnerable. These include migrant women and black and ethnic minority men who have sex with men in the UK [Dougan et al, 2005] and Asian-American men in the US [Huang et al, 2008]. Migrant men who have sex with men are a group that has been 'invisible' in discussions about HIV. This invisibility is considered to contribute to their increased vulnerability to HIV infection.

UK studies show that men from sub-Saharan Africa report high levels of sexual risk behaviour but perceive HIV prevention interventions as being primarily focused on women and children [Fenton et al, 2005; Chinouya et al, 2001].

In the US, much of the literature focuses on the vulnerability of male Hispanic migrants, linked to high-risk behaviours including multiple sexual partners, low and inconsistent condom use, high alcohol consumption, and

injecting drug use [Olshefsky et al, 2007; Ehrlich et al, 2007; Fernandez et al, 2005; Levy et al, 2005]. In addition, undocumented status and lack of health insurance are highlighted as barriers to accessing healthcare, which increases vulnerability [Chadborn et al, 2006; Levy et al, 2005; Prost et al, 2008; Burns et al, 2007].

3 Recommendations on HIV testing and counselling in migrant populations and ethnic minorities

This section is organised in two parts. The first provides an overview of international and regional guidelines on HIV testing, some of which refer specifically to migrants and ethnic minorities. The second describes the extent to which European Member States identify migrant and ethnic populations as being vulnerable to HIV and have specific guidance on HIV testing for these populations.

3.1 International and regional policies and guidelines

Policies and guidelines highlight the individual and public health benefits of HIV testing. These benefits relate to both HIV prevention and treatment. Policies and guidelines stress the importance both of early detection of HIV and of linking testing with treatment, care and support.

Taking action on AIDS

In 2007, AIDS Action Europe and WHO Europe organised a conference entitled 'HIV in Europe 2007: Working together for optimal testing and earlier care', which brought together HIV advocates, clinicians, public health professionals and policymakers. The conference addressed such issues as the late diagnosis of HIV infection and the proportion of HIV-positive patients who present late for care. Experts recommended action to better define late diagnosis and indicator diseases, to address the criminalisation of HIV transmission and to implement the Stigma Index. This was followed up by an ECDC expert meeting in January 2008: 'HIV testing in Europe: From policies to effectiveness' where experts discussed critical issues in HIV testing and counselling. After a Round Table in the European Parliament in September 2008, the European Parliament adopted the 'Joint resolution on HIV/AIDS early diagnosis and early care' (European Parliament, 2008). In December 2010, ECDC launched a guidance document on HIV testing in the European Parliament.

International policies and guidelines on HIV testing and counselling initially emphasised informed consent and confidentiality and relied on people to voluntarily seek testing. This approach, referred to as client-initiated testing and counselling, achieved relatively low testing coverage. As the availability of antiretroviral therapy has expanded, testing and counselling policy has shifted towards offering systematic or routine testing, in order to identify as many people who are eligible for treatment as possible. This approach is sometimes referred to as 'provider-initiated testing and counselling' or 'opt-out testing'. Key guidelines that reflect this shift are included in the Box below.

'Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings'

Published in 2006 by the US Centers for Disease Control and Prevention (CDC), these recommendations aimed to increase HIV testing – and reduce missed testing opportunities – through routine, voluntary HIV screening for all people aged 13 to 64 in healthcare settings independent of any HIV risk assessment unless local HIV prevalence is below 0.1%. The revised recommendations propose an opt-out testing strategy, where pre-test counselling and a signed consent form for HIV testing are no longer required, although testing would remain voluntary. Opt-out testing in healthcare settings would continue to be complemented by HIV testing at dedicated sites for specific risk groups.

'Guidance on provider-initiated HIV testing and counselling (PITC) in health facilities'

Published in 2007 by the World Health Organization (WHO) and the Joint UN Programme on HIV/AIDS (UNAIDS), the guidance aimed to increase HIV testing through healthcare providers recommending HIV testing to patients attending health facilities, and was based on experience of successful implementation of PITC in low- and middle-income countries. Testing would remain voluntary and confidential and patients would have the right to decline a test. Pre-test counselling would be replaced by pre-test information, but post-test counselling remains central, and testing must be linked to appropriate HIV prevention, treatment, care and support services. PITC is recommended in countries with generalised epidemics and in selected healthcare settings in countries with concentrated epidemics. A supportive social, policy and legal framework is essential to maximise positive outcomes and minimise potential harm from PITC.

'HIV testing: increasing uptake and effectiveness in the European Union'

Published in 2010 by the European Centre for Disease Prevention and Control, this evidence-based guidance, which was developed with direct involvement of EU Member State experts, aims to inform the development, monitoring and evaluation of national HIV testing strategies or programmes in the countries of the European Union (EU) and the European Economic Area (EEA). The guidance is built around seven core principles that define the approach to implementation of testing: 1) HIV testing should be voluntary, confidential and undertaken with informed consent; 2) ensure access to treatment, care and prevention services; 3) show political commitment; 4) reduce stigma; 5) remove legal and financial barriers; 6) make access to HIV testing an integral part of national strategies; and 7) develop and implement an HIV testing strategy with the participation of stakeholders. The guidance relies on the findings and conclusions of a systematic literature search and evidence synthesis presented in the report: 'HIV testing: Increasing uptake and effectiveness in the European Union. Evidence synthesis for guidance on HIV testing'.

A number of international and regional policies and guidelines identify migrants and ethnic minorities as being especially at risk of HIV infection, and some consider the implications of this for HIV testing (see Table 1).

3.2 European Member State policies and recommendations

Migration patterns, and migrant and ethnic minority populations, differ between EU, EEA and EFTA countries, depending on geographical, historical and economic factors. Definitions of migrants and ethnic minorities also differ between countries.

A review of national policies and strategies shows that countries identify migrant and ethnic minority populations, in particular migrant populations, as being more at risk or vulnerable to HIV infection than the general population, based on HIV prevalence or risk behaviours¹ (Annex 4 shows the groups identified as at risk for HIV in the reviewed documents). Based on responses by EU Member States to the survey, not all countries that acknowledge migrants and ethnic minorities as being at risk for HIV infection explicitly recommend HIV testing for these populations².

Migrant populations

The majority of countries identify migrant populations as being at elevated risk in policy documents (see Annex 4). Some countries refer only to 'migrants' as at risk, whereas others specify particular migrant populations (see Annex 4). People originating from countries with high HIV prevalence, in particular from sub-Saharan Africa, are most frequently identified as at risk for HIV. Migrants from Eastern Europe, Russia, Ukraine, the Caribbean, Asia and Latin America are also identified as groups at risk.

¹ No data are available for Austria, the Czech Republic, Estonia, Greece, Hungary and Liechtenstein on whether migrant or ethnic minority populations are identified as at risk.

² No data are available for the Czech Republic, Liechtenstein and Romania on whether HIV testing is recommended for migrant or ethnic minority populations.

Table 1: Migrant and ethnic minority populations identified as at risk of HIV and recommendations on HIV testing

Policies and guidelines	Organisation	Date	Populations identified as at risk	Populations identified as candidates for testing	Additional information
HIV testing: increasing uptake and effectiveness in the European Union	ECDC	2010	Migrants, especially those from countries with high prevalence, and their sexual partners		ECDC encourages ensuring equitable access to HIV testing in migrant populations within key populations, such as sex workers, MSM and IDU.
Guidance on provider-initiated HIV testing and counselling in health facilities	WHO, UNAIDS	2007	Migrants and refugees	Migrants and refugees	
HIV and international labour migration	ILO, IOM, UNAIDS	2007	International labour migration; people moving across national borders for employment		International labour migrants and their families should have the same level of access as nationals to HIV prevention, treatment, care and support programmes, which are sensitive to gender, culture, and in a language or medium the migrant worker can understand.
Guide for HIV counsellors	IOM	2006	Migrants and refugees		
Scaling up HIV testing and counselling in the WHO European Region	WHO	2010	Some migrant and mobile populations; national minorities	Migrants, mobile populations; ethnic and national minorities	Highlights barriers to accessing health services for most-at-risk populations and need for strategies to increase access to, and uptake of, HIV testing, including provision of testing in community settings. The goal is to provide prevention and treatment to all who need it, not just to increase access to, and uptake of, HIV testing. Mandatory HIV testing for migrants and asylum seekers upon arrival violates basic rights and ethical principles and cannot be justified on public health grounds.
2008 European guidelines on HIV testing	IUSTI	2008	People from countries with a high prevalence of HIV infection	Individuals who have had sexual exposure in countries with high HIV prevalence	
Dublin Declaration on partnership to fight HIV/AIDS in Europe and Central Asia	Representatives of states and governments from Europe and Central Asia	2004	Migrant populations with close links to high-prevalence countries		

Based on responses from country representatives, 15 countries recommend HIV testing for migrants. Some countries specify which migrant populations should be offered HIV testing (see Table 2). HIV testing for migrants and asylum seekers is offered prior to entry in some countries³.

Table 2: Specific migrant and ethnic minority populations to be offered HIV testing

Country	Groups mentioned
Bulgaria	Refugees and asylum seekers; people from high-HIV-prevalence countries and their sexual partners
Cyprus	Migrant populations
Denmark	People from Africa, Asia, South America, Eastern Europe
Finland	People from high endemic/prevalence areas
France	People from high HIV endemic countries, especially in sub-Saharan Africa and the Caribbean
Iceland	All migrants intending to stay for more than one year, as part of general health screening
Lithuania	Migrant populations
Luxembourg	People from sub-Saharan Africa, Asia, Eastern Europe; target groups of residents of foreign origin (especially the Lusophone community)

³ Iceland (Chief Epidemiologist of Iceland, 2007), Poland (information provided by country representative) and the Slovak Republic (Public Health Authority of the SR and Slovak Medical University, 2000) report that HIV testing is offered to all migrants on arrival, as part of a general health screening.

Country	Groups mentioned
Netherlands	People from high-HIV-prevalence countries (Surinam, Dutch Antilles, Turkey, Morocco, sub-Saharan Africa, South America, Asia, Eastern Europe); partners of people from STD/HIV-endemic areas
Norway	People from high-HIV-endemic countries
Poland	All migrants on arrival, as part of a general health screening
Slovakia	All migrants on arrival, as part of a general health screening
Sweden	People from high endemic areas
Switzerland	People from countries with generalised epidemic
UK	People from high-HIV-prevalence countries

Most countries do not specify frequency of HIV testing. Exceptions are Denmark, which recommends testing on first contact with health services, regardless of the reason for seeking care, and France, which recommends repeat annual testing for people with multiple partners originating in sub-Saharan Africa and the Caribbean. UK and French guidelines recommend systematic screening for people originating from regions of high prevalence.

Ethnic minorities

Six countries refer to 'ethnic minorities' as being particularly vulnerable to HIV in policy documents (see Table 3) but only Romania and the UK⁴ identify specific minority groups. Luxembourg expressly recommends HIV testing for the Lusophone community. From a surveillance perspective, it is impossible to determine if ethnic minorities are disproportionately affected by HIV/AIDS as most countries cannot provide data on this.

Table 3: Countries that identify ethnic minorities as at risk for HIV and recommend HIV testing for ethnic minorities

Identify ethnic minorities as vulnerable to HIV	Bulgaria, Cyprus, Denmark, Luxembourg, Romania, UK
Do not identify ethnic minorities as vulnerable to HIV	Belgium, Finland, France, Germany, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland
Recommend HIV test for ethnic minorities	Luxembourg
Do not recommend HIV test for ethnic minorities	Austria, Belgium, Bulgaria, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK*

* The UK identifies black and minority ethnic (BME) communities in the National Strategy but not in the UK National Guidelines for HIV testing (2008).

⁴ Romania identifies the Roma population. The UK identifies black and minority ethnic (BME) communities in the National Strategy.

4 Challenges in HIV testing and counselling in migrant populations and ethnic minorities

4.1 Uptake of HIV testing and counselling

A number of studies describe uptake of HIV testing among migrant populations, ranging from 21% to 73% of the populations studied in the US [Uribe et al, 2009; Fernandez et al 2005; Dowling et al, 2007, Ostremann, 2007, Dowling et al; Huang et al, 2008; Lopez-Quintero et al, 2005] and from 23% to 64% in the populations studied in Europe [Tariq et al, 2007; Forbes et al, 2008; Sadler et al, 2006; Dougan, 2005].

For example, US studies show that Hispanics were less likely to be tested for HIV than white or African Americans [Uribe et al, 2009; Lopez-Quintero et al, 2005].

Gender is a factor, and overall a higher proportion of migrant women have been tested for HIV, compared with men. While this gender difference is largely due to routine antenatal HIV screening, several studies also indicate that men are less willing to be tested, as well as being less exposed to HIV testing [Fakoya et al, 2008].

Ethnic minority and migrant women are generally reported to accept HIV testing during antenatal care. In the UK, for example, studies show that testing uptake was 91% among white women, 90% among Asian women, and 92% among women from sub-Saharan Africa [Southgate et al, 2008; Conaty et al, 2005]. A study in the US among Hispanic migrant farm workers found that 20% had been tested for HIV, most of whom were women who had been tested during antenatal care [Fernandez et al, 2005]. Another US study showed that ethnic minority women report the highest lifetime rates of HIV testing [Ostremann et al, 2007].

Various studies suggest that the context in which testing is offered and who offers the test may be important determinants of the decision to accept testing. For example, in a US study, 69% of Hispanic migrant farm workers reported that they would accept testing if recommended by a healthcare provider, with women more likely than men to accept testing if it was offered by a healthcare provider [Fernandez et al, 2005]. In contrast, another study found that ethnic minority men in the US who have sex with men were more likely to accept HIV testing if it was offered outside traditional healthcare settings [Dowling et al, 2007].

4.2 Late diagnosis

Late diagnosis of HIV is a public health challenge worldwide [Hamers and Phillips 2008; European Centre for Epidemiological Monitoring of AIDS, 2006]. It has been estimated that a third of people living with HIV in Europe remain undiagnosed [Council of Europe, 2006; Hamers and Phillips 2008; Marks et al, 2006]. ECDC reports and other sources suggest that late diagnosis is higher among migrants [ECDC 2010a]. While there has been a decline in the number of AIDS cases reported in most EU countries since the mid-1990s due to the impact of ART, this decline has not been observed in migrant populations.

The literature also highlights late diagnosis of HIV infection in migrants and ethnic minorities as an issue, describing higher prevalence of late diagnosis in migrants compared to nationals and in ethnic minorities compared to the white population. This pattern is reported largely among sub-Saharan Africans in Europe – in studies in France [Delpierre et al, 2007], Spain [Monge-Maillo, 2009] and the UK [Fakoya et al, 2008; Prost et al, 2008; Prost et al, 2007; Chadborn et al, 2006; Burns et al, 2007].

In the UK, the Health Protection Agency and the Mayisha Study [Mayisha II Collaborative Group, 2005] estimate that in 2005 there were approximately 21 500 Africans living with HIV in the UK, an estimated one-third of whom were undiagnosed.

The SONHIA Collaboration reported that nearly half of newly diagnosed HIV-positive Africans attending HIV treatment centres across London had CD4 cell counts below 200 at diagnosis [Burns et al, 2008]. This study also highlighted missed opportunities for earlier diagnosis in healthcare setting. During the year prior to HIV diagnosis, 76% had visited a general practitioner, 38% had attended outpatient services and 15% had attended inpatient services. Other studies also describe late presentation with advanced disease in people from sub-Saharan Africa [Fayoka et al, 2008].

High prevalence of late diagnosis in cases of heterosexually acquired HIV infection is reported by another UK study in all population groups. The proportion of late diagnosis was again higher among sub-Saharan Africans (43%) than among black Caribbean (36%) or white (36%) populations [Chadborn et al, 2006]. Men were more likely to be diagnosed late (49%) than women (38%). Women diagnosed through antenatal testing had a lower rate of late

diagnosis (20%) than women diagnosed elsewhere (42%). For sub-Saharan Africans, late diagnosis was present in 50% of men, 21% of women diagnosed during antenatal care, and 44% of women diagnosed elsewhere.

Delpierre et al (2007) report a similar pattern in France. Women in general were less likely to be diagnosed late because of routine antenatal testing. However, this was not the case among migrant women. Other French researchers have identified young migrant women, mainly from sub-Saharan Africa, and older migrant men as groups with a higher proportion of late diagnosis.

Late diagnosis among Latinos, in particular migrants from Latin America, and Asian-Americans is also reported in the US [Olshefsky et al, 2007; Huang et al, 2008] and Canada [Krentz and Gill, 2009]. Analysis of the National Health Interview Study in the US shows that Hispanics are more likely to have delayed HIV diagnoses than white or African Americans [Lopez-Quintero et al, 2005].

4.3 Barriers to testing and counselling

Structural, healthcare and community barriers to HIV testing and other HIV services among migrants and ethnic minorities are described in the literature [Bröring et al, 2010] and were confirmed during individual and group interviews conducted for this review⁵.

These barriers include:

- Legal and administrative status in the country of destination is a high priority for migrants. Concerns about the implications of an HIV-positive test result are cited as the main barrier to HIV testing in studies from Canada, the US, Spain and the UK. In contexts where a diagnosis of HIV may adversely affect legal status, visa or residence application processes or there is a fear of deportation, migrants are reluctant to be tested for HIV [Prost et al, 2008; Anderson, 2004; Chadborn et al, 2006; Perez-Molina et al, 2009].
- Legal status can also affect access to healthcare. Some countries do not provide healthcare for irregular migrants [PICUM, 2007]. This undermines public health approaches that emphasise the importance of linking HIV testing to care. Lack of entitlement to healthcare is highlighted in a number of studies, in particular in the US. Lack of clarity among healthcare providers in different European countries about the rights of migrants to healthcare is also highlighted [Fakoya et al, 2008].
- Stigma and discrimination are cited as significant barriers. Several studies describe high levels of HIV-associated stigma in some migrant communities. In the UK, for example, in the 1990s, African people being tested for HIV in a London hospital were twice as likely to be concerned about being discriminated against as white people [Prost et al, 2008; Erwin and Peters, 1999]. Fear of lack of confidentiality and of the community finding out about their HIV status, resulting in rejection, social isolation, loss of social status and community support, were listed as the main reasons given for not taking an HIV test [Carnicer-Pont et al, 2009; Chadborn et al, 2006; Fakoya et al, 2008; Flowers et al, 2006; Mitra et al, 2006; Ostermann et al, 2007; Prost et al, 2008]. This is a particular concern for individuals who need to bring a relative or friend to a clinic to help with translation [Foley, 2005]. Criminalisation of HIV transmission is a related issue. Fakoya et al (2008) highlight the disproportionate number of sub-Saharan African migrants among cases prosecuted in the UK for allegedly transmitting HIV infection.

'There will be hurdles for me to jump through, for me to say "look, accept me, I am me. I may be HIV positive, but ...". I think there's a lot in terms of stigma that still needs to be dealt with.'
[Flowers et al, 2006]

'People's biggest fear is their result being known in their particular community, (...) the fear of "do they know my auntie, do they know my..." even if they are supposed to be confidential, that for me would be the biggest concern.'
[Prost et al, 2007]

- Lack of cultural sensitivity, as well as communication and language problems, in healthcare settings are highlighted [Foley, 2005; Huang et al, 2008; Levy et al, 2005; Mitra et al, 2006; Perez-Molina et al, 2009; Tariq et al, 2007; Vissman et al, 2009]. Assumptions about migrants and lack of understanding of the specific culture and context of different migrant and ethnic minority communities are also a barrier. As a result, some migrants and ethnic minorities prefer to visit medical practitioners from their own community [Schwarzwald, 2005].

'If you don't speak English they just ignore you, or you can't even understand your name when they call it.'
[Foley, 2005]

⁵ Quotations are drawn from the literature and from interviews.

- Within migrant and ethnic minority communities, low priority given to HIV and lack of knowledge about health services can be barriers to HIV testing and care. Studies note that migrants necessarily prioritise meeting basic needs and HIV is a relatively low priority [Chadborn et al, 2006]. They also note that members of some migrant and ethnic minority communities are not aware of where to go for HIV testing. Knowledge about HIV varies. Some communities are described as having good knowledge, for example, sub-Saharan Africans in the UK [Burns et al, 2007]. Others are described as having low knowledge, for example, Asian Americans in the US [Huang et al, 2008]. In the Netherlands, migrants are provided with information about HIV testing when they register at the nearest city hall, but this has not increased uptake of testing. This suggests that lack of knowledge about services is not the only barrier.
- Several studies describe low perception of HIV risk among migrants and ethnic minorities at the individual level, citing this as a common reason for not seeking HIV testing [Fakoya et al, 2008; Olshefsky et al, 2007; Lopez-Quintero et al, 2005; Conaty et al, 2005; Carnicer-Pont et al, 2009]. They also note that there is often a gap between risk perception and risk behaviours, for example among Asian Americans [Huang et al, 2008], and describe low risk perception among those who test positive for HIV [Burns et al, 2007; Prost et al, 2008].
- Cultural and gender norms play a role. Gender roles culturally assigned to men and women in some migrant communities may deter heterosexual men and women as well as men who have sex with men from seeking an HIV test. In the US, Olshefsky et al (2007) report that machismo is a barrier to HIV testing among Latino men. Foley (2005) reports that it is difficult for migrant women from sub-Saharan Africa to seek HIV testing or treatment without the approval, and economic support, of their partners.

‘The Checkpoint [BCN Checkpoint, an HIV/AIDS service based in Barcelona, Spain] in our city offers HIV tests to men who have sex with men, many of whom are migrants from Latin America, and we also see many Latin American male sex workers. They really have a problem in accepting their sexuality and their HIV status. In spite of living the life of a gay man in Spain, their ideas about sexuality reflect the culture of their countries of origin which demonises homosexuality. Most have not disclosed their sexual orientation to their families, so disclosing their HIV status is extremely difficult.’
(NGO researcher)
- High levels of unemployment and poverty, low social status and inequalities are also mentioned as barriers to migrants and ethnic minorities accessing HIV testing and care in France, Spain, the UK, Canada and the US [Fakoya et al, 2008; Prost et al, 2008; Perez-Molina et al, 2009; Tariq et al, 2007; Mitra et al, 2006]. These barriers act in synergy with many of those previously mentioned, serving together to limit access to, or acceptance of, HIV testing for many migrant individuals.

5 Approaches to HIV testing and counselling in migrant populations and ethnic minorities

The literature, surveys and interviews identified a range of approaches to HIV testing and counselling, which can be broadly categorised as general population approaches, and targeted approaches specifically directed at migrant and/or ethnic minority populations. However, there are also examples of HIV testing strategies that are a mix of general population and targeted approaches. For example, in some countries, routine testing is offered to everyone attending health services but only in geographical areas that have a significant migrant or ethnic minority population.

5.1 General population approaches

General population approaches include routine opt-out HIV testing for all pregnant women attending antenatal clinics, regardless of their migrant status or ethnic background, and provider-initiated testing in other healthcare settings.

Routine antenatal screening could increase testing coverage among migrant and ethnic minority populations and has been key to the decline in mother-to-child transmission of HIV in Europe [WHO 2011]. Various studies indicate that there is no difference in uptake of antenatal testing between migrant and non-migrant women. In the UK, for example, no difference in uptake of testing was found by ethnicity [Southgate et al, 2008]. A US study also supports routine antenatal testing for all pregnant women as an effective strategy for achieving good coverage with HIV testing [Ostermann et al, 2007].

A US study reported that routine offering of testing by physicians in urban urgent care clinics in Atlanta during a 24-week period yielded double the number of newly-detected HIV infections and twice as many HIV-positive patients entering care than during the same period in the previous year [Fernandez et al, 2005]. Many researchers have identified healthcare provider endorsement as a significant predictor of testing and recommend integration of HIV screening in routine medical care [Mitra et al, 2006; Fernandez et al, 2005; Ostermann et al, 2007; Carnicer-Pont et al, 2009].

A general population approach may also be more acceptable to service providers and users. Service providers prefer to offer screening as part of standard medical procedures. Service users may perceive HIV testing that is offered to people on the basis of the colour of their skin or their country of origin as discriminatory. A study in Canada found that women from HIV-endemic countries had a preference for non-targeted strategies that are integrated within health services [Mitra et al, 2006].

'Epidemiologically and financially it makes sense to talk of high prevalence groups – for example, migrants from sub-Saharan Africa and men who have sex with men – but it doesn't make sense in terms of delivering services and the risk of discrimination and stigma. The history of migrants is different from that of men who have sex with men. The latter had a solid network of solidarity that helped them to withstand potential stigma and discrimination, whereas migrants do not. Although it is tempting epidemiologically to target them as a group, the strategy needs to be embedded in the general population.'
(Group interview)

The potential disadvantages of this approach are also highlighted. There are concerns that a general population approach based on routine screening during antenatal or other healthcare will not reach the most vulnerable and marginalised populations who are less likely to use health services. Lower coverage of other prevention programmes, such as cervical screening, in these populations was cited as an example.

Views are mixed about the provision of pre-test information, replacing pre-test counselling, prior to opt-out testing. However, spending additional time providing pre-test information may be appropriate for some migrant and ethnic minority populations who might benefit from additional counselling to help them address misconceptions and community stigma [ECDC 2010c]. The Naz Project, which works with migrants in London, has replaced pre-test counselling with pre-test information, but has counsellors to whom people can be referred if required. However, some believe pre-test counselling could deter some migrants from seeking testing.

'I am ambivalent about shortening pre-test counselling for migrants and ethnic minorities. In London, migrants and ethnic minorities still need counselling to address misconceptions about HIV and stigma at community level.'
(Academic researcher)

'Although I see the advantages of shortening testing time, I fear the most vulnerable will not benefit from HIV counselling.'
(Policymaker)

'Counselling must remain as an essential part of testing, although I am not sure that is the case for the general public (...) and I can see the advantages of replacing it by a brief informative session. But for people most at risk, pre- and post-testing counselling is indispensable, especially after a positive result.'
(NGO representative)

'It is not only time, people from sub-Saharan Africa don't like the idea of having to talk about private things and the idea of being counselled. When, on top of this, English is not their first language, things are even more difficult.'
(Academic researcher)

Within Europe, only the UK and France have issued guidelines to encourage HIV testing in the general population, as well as supporting continuing testing for groups with higher prevalence of HIV.

In the UK, the Department of Health has sponsored pilot studies in a range of settings to promote HIV testing among new hospital admissions and new primary care attendees. The findings of one of these studies, which aimed to test the acceptability and feasibility of rapid HIV testing in new general practitioner attendees in east London, show that uptake of testing was higher among sub-Saharan Africans and Afro-Caribbeans than among other population groups.

In France, the guidelines will be implemented as part of the new Ministry of Health HIV and AIDS plan. Key issues that will need to be considered include ensuring that the general population is well informed about the rationale for the change in HIV testing recommendations, and that adequate resources and support are made available to health services at primary care level. The guidelines specify the need for training and monitoring service quality in sites providing rapid HIV testing.

5.2 Targeted approaches

Targeted approaches to improve the availability of testing and increase uptake among migrant and ethnic minority communities include provision of HIV rapid testing in community settings, and outside normal working hours, to reach people who might not access health services.

Provision of point-of-care testing by non-government and community-based organisations (CBOs), and testing provided by outreach services, mobile clinics and in venues such as barber shops and hair salons, social clubs and sporting events are mentioned. Offering HIV testing at gay pride events [Dowling et al, 2007] and other venues is recommended to increase uptake among migrant and ethnic minority men who have sex with men.

For reasons of confidentiality, some people may prefer testing to be offered by CBOs rather than in community venues. CBOs may also be better placed to provide post-test counselling and healthcare referral.

The Naz Project

The Naz Project works in partnership with the Chelsea and Westminster Hospital in London to promote community point-of-care testing to black and minority ethnic groups where late diagnosis is common. The project promotes testing for HIV and other STI in the community, encourages people to come to their centre and provides translation and pre- and post-test information. Appointments are made by outreach community workers. Walk-in services are not provided, as many cases require a translator and this needs to be planned for in advance. The centre runs a weekly clinic in the afternoon and evening so that people can come after work. Hospital nursing staff come to the centre to perform rapid HIV testing, as well as tests for other STI. People who test positive are immediately referred for confirmatory testing and clinical follow up. Most clients are from black and ethnic minority communities, around 50% are heterosexual women, 25% are heterosexual men and 25% are men who have sex with men. The main challenge has been insurance, as policies require community sites to provide services that are consistent with those in a hospital setting. To overcome this, Naz staff have been given honorary National Health Service contracts.

There appear to be few initiatives specifically targeting heterosexual men in migrant or ethnic minority communities. Strategies proposed to reach these men include extending opening hours at testing sites and conducting outreach activities in work, religious and community settings.

'Community services need to reach men who do not go to health services, so point-of-care testing needs to engage men in other settings.'
(Group interview)

'Reaching heterosexual men is crucial, for all healthcare, not just sexual health. We need more targeted "social marketing", for example using male role models to endorse HIV testing in the same way that we

have used footballers to promote screening for prostate cancer.’
(NGO representative)

In some communities it may be more appropriate to reach men through women. Testing services aimed at couples, including couple testing during antenatal care, is one strategy. However, a partner testing scheme in east London, which aimed to test male partners of pregnant women from sub-Saharan Africa, experienced difficulties in scheduling a time when both partners could attend together. Testing both women and men during pregnancy can avoid women being blamed for bringing HIV into the family, but women may not always want to disclose their status to their partner.

‘The role of caring for the health of the family, getting information about health and accessing healthcare is not the same in every culture. In cultures where these roles are gender-specific, it is difficult to reach men directly, and you have to reach them through the women.’
(NGO representative)

‘Partner testing during prenatal care could be a solution, as it is a good opportunity to suggest a check-up for the family before the baby comes.’
(NGO representative)

Community partnerships and participation are identified as critical to increase uptake of HIV testing in migrant and ethnic minority populations. A UK study calls for community involvement in promoting testing, including explaining the benefits of accessing ART [Burns et al, 2007]. Others recommend providing information and services in languages spoken by migrant and ethnic minorities [Levy et al, 2005].

Establishing referral links prior to initiating community testing is essential to ensure follow-up care for those who test HIV positive. Consequently, there are mixed views about whether or not HIV testing should be actively promoted for undocumented migrants, whose status means that they are not entitled to healthcare, including ART.

‘Voluntary testing and counselling was provided for years in sub-Saharan Africa before treatment was available. Testing allows a person to take decisions as well as to fight for access to treatment. Not knowing is worse.’
(Academic researcher)

‘HIV testing on its own has been shown to be beneficial in reducing unsafe sexual behaviour and thus, decreasing HIV transmission. Even if a person is not entitled to ART, they can be provided with other care, including prophylaxis and treatment of opportunistic infections.’
(Policymaker)

‘It makes no sense to perform a test when a positive result does not guarantee access to care. Denying care is contrary to human rights, which guarantee access to healthcare to all individuals.’
(Academic researcher)

‘If you can’t offer treatment why test them? The test itself is not the goal ... the goal is to provide health and social care to those affected.’
(NGO representative)

‘It is a human rights issue ... and a public health principle. We do it for TB. Why not for HIV?’
(NGO representative)

Another targeted approach is screening of migrants on arrival in a country. In most countries that take this approach it is not completely clear if HIV testing is voluntary [Zencovich, 2006; Krentz, 2009; Jones, 2008]. In some countries, a diagnosis of HIV affects entry and status. In other countries, HIV status does not affect entry and screening is used to identify people who require healthcare.

US policy requires HIV testing of asylum seekers [Jones et al, 2008], and those who were HIV infected could only obtain temporary admission to the US prior to December 2010, when the travel ban against HIV-infected persons was lifted. Children who arrive into the US needing a permanent visa are required to be screened for HIV, hepatitis B and C, and tuberculosis, and screening is repeated six months after arrival. Implications of HIV test results for visa status are not discussed [Schwarzwald, 2005]. On 2 November 2009, HHS/CDC posted a ‘final rule’ that removed HIV infection from US immigration screening, stating that HIV infection does not pose a public health risk to the general population through casual contact. This rule went into effect on 4 January 2010 [CDC, 2009].

In Europe, HIV testing for migrants and asylum seekers is offered prior to entry in some countries, as part of general health screening⁶. HIV testing is also mandatory for migrants and asylum seekers entering Canada [Zencovich et al, 2006]. Screening includes clinical referral and information that is sensitive to the gender, cultural

⁶ Iceland (Chief Epidemiologist of Iceland, 2007), Poland (Information provided by Country Representative) and the Slovak Republic (Public Health Authority of the SR and Slovak Medical University, 2000) report that HIV testing is offered for all migrants on arrival, as part of general health screening.

and linguistic profile of the client [Zencovich et al, 2006; MacPherson et al, 2006]. This approach is reported to have resulted in an increase in the number of cases of HIV diagnosed in immigrants and uptake of healthcare in Canada [Krentz and Gill, 2009]. A French study recommends offering HIV testing to migrants on arrival to reduce late diagnosis [Delpierre et al, 2007].

5.3 Mixed approaches

In the US, CDC has worked with partners to develop implementation guidelines to promote routine HIV testing for the most affected communities. Guidelines reflect the need for different strategies in different settings and populations and for partnerships between public health departments, civil society representatives, professional associations and organisations representing minority communities to communicate the advantages of early HIV diagnosis in the most affected communities [CDC 2006].

Efforts to expand HIV testing have targeted communities where HIV prevalence is highest, including areas with a high proportion of African Americans, Hispanics, and men who have sex with men. The aim is to increase uptake of testing, reduce the proportion of people living with HIV who remain undiagnosed, and increase access to early treatment and care. However, this approach depends on accurate and up-to-date epidemiological and behavioural data, to ensure effective targeting of most-at-risk populations.

Testing is also a key strategy to enhance HIV prevention, in particular among African Americans in the US, within comprehensive prevention programmes which also address structural determinants such as poverty, racism and discrimination, and access to healthcare. SIREAS, a migrant organisation in Belgium, also highlighted the need to address the social determinants of health in migrant communities.

Conclusion

Migrants from HIV-endemic countries appear to be at higher risk of HIV infection, and social vulnerability associated with the process of migration places migrants from high- and low-prevalence countries at increased risk of HIV. Delayed diagnosis is an issue of particular concern for migrant populations. However, not all countries, including those that acknowledge migrant populations to be at elevated HIV risk, have explicit recommendations on HIV testing for these populations. Ethnic minorities are invisible for surveillance purposes in most countries, and few countries identify ethnic minorities as being at higher risk of HIV infection or recommend HIV testing for specific ethnic minority groups.

There is consensus on the benefits of HIV testing, at both individual and community levels, and on the need to link testing with treatment, care and support. Consequently, HIV testing of migrants who do not have access to healthcare because of their legal status, in particular undocumented migrants, has become a serious concern. HIV treatment should be available to all HIV-positive people on public health grounds, regardless of their legal status, as persons on well managed treatment are less likely to transmit the infection further. Knowledge of guaranteed access to treatment would also be likely to increase attraction and acceptability of testing. Mandatory testing for migrants and asylum seekers, which is strongly discouraged in international guidelines, is also highlighted as a concern in some countries.

Other barriers to accessing healthcare are identified. These include structural, socio-economic, cultural and healthcare barriers. Fear of the repercussions of a diagnosis of HIV, including stigmatisation and rejection by their community and refusal of residency or deportation, is a significant deterrent to seeking HIV testing among migrants.

Strategies are required to address these barriers in order to increase uptake of HIV testing in the most vulnerable migrant and ethnic minority populations. General population approaches, specifically routine opt-out HIV screening in antenatal care, are considered to be an effective way of reaching a high proportion of migrant and ethnic minority women. There is also a need to ensure that programmes focused on other key populations, for example, sex workers, MSM and IDU, provide equitable access to services, including to those born in other countries or having a particular nationality or ethnicity, regardless of legal status. In some contexts, ensuring equitable access may require additional resources for specific innovative and targeted approaches targeting migrants within these key populations. Such approaches include promotion and provision of HIV testing in community settings, including through partnerships with communities and community organisations.

Finally, there is a clear need to address HIV testing within a broader framework of inequalities and migrant health, tackling the underlying causes of vulnerability to HIV.

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Annex 2. Methodology

Systematic review of the literature

Searches were conducted of Pubmed, Embase, CRD York Database, Cochrane, and Web of Knowledge. To be eligible for inclusion, articles had to be in English, published between 2005 and 2009, be published in Europe, North America or Australia, and be related to 'minority/migrant' and 'HIV testing'. Searches used the following MeSH terms in data bases that use MeSH indexing system (Pubmed, Cochrane): ('minority groups' [MeSH] OR 'transients and migrants' [MeSH] OR 'emigrants and immigrants'[MeSH] OR 'refugees'[MeSH]) AND ('mass screening' [MeSH] OR 'diagnosis' [MeSH] OR 'AIDS serodiagnosis' [MeSH] OR 'public policy' [MeSH] OR 'prevention and control' [subheading] OR 'Centers for Disease Control and Prevention (U.S.)' [MeSH] OR 'counselling' [MeSH]) AND ('acquired immunodeficiency syndrome'[MeSH] OR 'HIV'[MeSH] OR 'HIV infections'[MeSH]). Otherwise, searches used 'topics' related to: migrants and minorities (migrant workers, minority, asylum or refugee status) AND testing or linked issues (mass screening; diagnosis; AIDS serodiagnosis; public policy; prevention and control; counselling) AND HIV/AIDS (acquired immunodeficiency syndrome (AIDS), HIV).

The initial search, and subsequent additional searches, identified 548 articles, of which 35 met inclusion criteria and were selected for the review. A standard template was used to extract information from these articles. Most reported on studies conducted in the US (13), UK (11), Canada (4) and Spain (3), using qualitative methods. Study populations referred to included migrants and ethnic minorities, but differing approaches were used to define these populations (see Table A1).

Migrant populations studied were largely sub-Saharan Africans, Latin Americans and South Asians in Europe, and Latino, African and South-east Asian immigrants in the US. Ethnic minorities included in the studies were largely African-Americans, Latinos or Hispanics and generic 'racial minorities' in the US and 'black communities' in the UK. The studies were mainly conducted in health settings⁷ (12) and community settings⁸ (5). Three were conducted in immigration centres.

Table A1: Migrant/ethnic minority definitions used in the 35 articles (multiple definitions were possible)

Migrant/minority definition	North American	UK	Continental Europe	Total
Country of origin	3	8	3	14
Country of birth	6	3	3	12
Self reported ethnicity	7	1	-	8
Ethnicity	2	5	-	7
Country of nationality	2	-	1	3
Ethnic origin	-	1	-	1
Race	-	-	1	1
Not specified	1	-	-	1

The 35 articles addressed various aspects of HIV testing and counselling in migrant populations and ethnic minorities, and these were grouped as follows:

- Prevalence and risk factors for HIV infection in migrants and ethnic minorities
- Barriers to HIV testing in migrants and ethnic minorities
- HIV testing uptake in migrants and ethnic minorities
- Late HIV diagnosis in migrants and ethnic minorities
- Interventions to encourage HIV testing aimed at migrants and ethnic minorities

Information was also extracted on gender and legal aspects, the latter including criminalisation of HIV transmission in migrants and ethnic minorities.

⁷ Infectious diseases and internal medicine units, HIV hospital clinics, STD clinics, antenatal clinics, and HIV paediatric units.

⁸ Community-based organisations, leisure centres, shopping areas, streets, gay prides, and home surveys.

Review of international and national policies, guidelines and recommendations

An e-mail survey was sent to the nominated contact points for HIV/AIDS surveillance in EU/EEA countries and Switzerland, requesting information about HIV testing and counselling recommendations targeting migrant populations and ethnic minorities, including the year of publication. The most recent document including these recommendations was also requested. Replies were received from 27 countries (see Table A2). In addition, a web search was conducted to identify policies, guidelines and other relevant publications on HIV testing and counselling published by international agencies and by EU, EEA and EFTA countries. The web search identified documents from 23 countries.

Table A2: Participants in the e-mail survey

Country	Country representative	Position	Institution
Austria	Jean-Paul Klein	Technical expert HIV/AIDS, tuberculosis, immunisation	Ministry of Health
Belgium	André Sasse	Epidemiologist	Scientific Institute of Public Health
Bulgaria	Tsvetana Yakimova	Chief expert	Ministry of Health
Cyprus	Anna Nouska	AIDS programme manager	Ministry of Health
Denmark	Susan Cowan	Medical consultant, public health	Department of Epidemiology, Epidemiology Division
Estonia	Aljona Kurbatova	Researcher	Infectious Diseases and Drug Abuse Prevention Department, National Institute for Health Development
Finland	Henrikki Brummer	Senior researcher	HIV Laboratory, National Institute for Health and Welfare
France	Caroline Semaille	Medical epidemiologist	Institut de Veille Sanitaire
Germany	Osamah Hamouda	Researcher	Federal Ministry of Health
Greece	Georgios Nikolopoulos	Epidemiologist	HIV Infection Office, Hellenic Centre for Diseases Control and Prevention
Hungary	Maria Dudas	Epidemiologist	Hungarian National Centre for Epidemiology
Iceland	Sigurlaug Hauksdóttir	Social consultant	Centre for Infectious Disease Control, Directorate of Health
Ireland	Aidan O'Hora	Consultant in public health medicine	Health Protection Surveillance Centre
Italy	Anna Maria Luzi	Researcher, scientific chief, research psycho-socio-behavioural, communication, training, Italian National Focal Point AIDS & mobility	Department of Infectious, Parasitic and Immunomediated Diseases, National Institute of Health
	Anna Colucci	Researcher, research coordinator, research psycho-socio-behavioural, communication, training	
Latvia	Inga Upmace	Head of AIDS Programme Department	Infectology Centre
Lithuania	Oksana Strujeva	Epidemiologist	HIV/AIDS/STI and Hepatitis Epidemiological Surveillance Department, Centre for Communicable Diseases and AIDS
Luxemburg	Robert Hemmer	Chairman, National AIDS Committee	National Service of Infectious Diseases, Centre Hospitalier de Luxembourg
Malta	Jackie Melillo	Public health physician	Infectious Disease Prevention and Control Unit, Health Promotion and Disease Prevention Directorate, Ministry for Social Policy
Netherlands	Eline Op de Coul	Epidemiologist	Centre for Infectious Disease Control, National Institute for Public Health and the Environment
Norway	Hans Blystad	Deputy director	Department of Infectious Disease Epidemiology, Norwegian Institute of Public Health
Poland	On behalf of National AIDS Centre	Researchers	National AIDS Centre
Portugal	Sónia Dias	Assistant professor, International Health Department	Institute of Hygiene and Tropical Medicine, University of Lisbon

Country	Country representative	Position	Institution
Slovenia	Mario Poljak	Head of Laboratory for Molecular Microbiology and Slovenian HIV/AIDS Reference Centre	Institute of Microbiology and immunology, Faculty of Medicine, University of Ljubljana
Slovakia	Danica Stanekova	Head, National Reference Center for HIV/AIDS Prevention	National Reference Center for HIV/AIDS Prevention
	Alexandra Zampachova	Epidemiologist	Public Health Authority
Spain	Olivia Castillo	Head, Prevention and Coordination, Department for National AIDS Strategy	Ministry of Health and Social Policy
Sweden	Robert Jonzon	Senior programme officer, National Coordination of HIV/STI Prevention Unit	National Board of Health and Welfare
Switzerland	Luciano Ruggia	Project manager, International Affairs	Federal Department of Home Affairs, Federal Office of Public Health, Division of Communicable Diseases Prevention and Promotion Section
UK	Valerie Delpech	Consultant epidemiologist and Head of HIV and AIDS Reporting Section	Centre for Infections, Health Protection Agency

E-mail responses and the web search identified a range of documents, including HIV/AIDS plans, HIV testing guidelines and general health screening recommendations for migrants. These were reviewed using a standard template. Information was extracted about the extent to which migrants and ethnic minorities are identified as vulnerable populations for HIV and about specific policies and recommendations concerning HIV testing and counselling in these populations, HIV testing strategies, and legal and gender aspects of HIV testing of migrants.

Stakeholder and group interviews

Face-to-face and telephone semi-structured interviews were conducted with 13 key informants representing different parts of the European region and government and non-government organisations. These informants were selected on the basis of their knowledge and expertise of HIV testing and counselling and of migrant and ethnic minority health issues. Interviews were audio-recorded, transcribed and analysed.

Table A3: Participants in semi-structured interviews

Ferrán Pujol	Project manager, NOMS-Hispanosida and BCN Checkpoint, Hispanosida, Spain
Ramazan Salman	Executive managing director, Ethno-Medical Center, Germany
Olivier Scemama	Deputy head, Economic and Public Health Assessment Department, National Health Authority, France
Jessica Deblonde	Researcher, International Centre for Reproductive Health, Ghent University, Belgium
Kevin Fenton	Director, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention, Centers for Disease Control and Prevention USA
Maureen Louhenapessy	Project manager, SidAids migrants-Siréas asbl, Belgium
Henrique Barros	National coordinator, National AIDS Coordination, Portugal
Ibidun Fakoya	Research associate, Centre for Sexual Health and HIV Research, University College, London, UK
Anna Maria Luzi	Researcher, scientific chief, psycho-socio-behavioural research, communication, training, and Italian National Focal Point AIDS Mobility, Department of Infectious, Parasitic and Immunomediated Diseases, National Institute of Health, Italy
Anna Colucci	Researcher, research coordinator, psycho-socio-behavioural research, communication, Training Department of Infectious, Parasitic and Immunomediated Diseases, National Institute of Health, Italy
Laura Camoni	Research assistant, National AIDS Unit; Department of Infectious, Parasitic and Immunomediated Diseases, National Institute of Health, Italy
Olivia del Castillo	Head, Prevention and Coordination of the Department for National AIDS Strategy, Ministry of Health and Social Policy, Spain
Bryan Teixeira	Chief executive, Naz Project, London, UK

Two group interviews, each including 15 participants, were also conducted during a meeting in Stockholm to present ECDC-led initiatives on migration and HIV. Group interviews covered the same questions as the semi-structured interviews and the open discussion. Again, interviews were audio-recorded, transcribed and analysed.

Challenges

The main challenges and limitations of this review, in particular with regard to compatibility across countries and the paucity of data from Eastern Europe, were as follows:

- The diversity of HIV epidemiology, migrant populations and ethnic minorities, definitions of migrants and ethnic minorities, and health and social welfare systems between EU, EEA and EFTA countries. Specifically, how differences in the extent to which migrant and ethnic minority populations are affected by HIV are reflected in differences in legislation and practices concerning testing and counselling in these populations.
- The diversity of policies, guidelines and recommendations. In addition, information was not available for some countries, either because of translation challenges or because guidelines are not available or in development.

Annex 3. Literature review summary

Title	Author	Year	Main objective	Location	Design	Sample size	Study population	Setting
Imported infectious diseases in mobile populations, Spain	Monge-Maillo B et al.	2009	To determine which infectious diseases were most common among two mobile immigrant groups (sub-Saharan Africans and Latin Americans) in Spain. Two aims of the study were to improve awareness among clinicians of emerging infections associated with human mobility and to provide additional information about imported diseases.	Spain (Madrid)	Cross-sectional	2198	Latin American and sub-Saharan African immigrants seeking healthcare at TMU	Health (hospital)
Identifying HIV risk-reduction strategies for Hispanic populations in Broward County	Uribe CL et al.	2009	To identify the attributes of Hispanic young adults (18-39 years old) at risk for HIV infection in Broward County and see how well their characteristics aligned with critical features of evidence-based behavioural risk-reduction interventions evaluated with Hispanic populations in Puerto Rico and in the north-eastern and western United States.	US (Broward County, Florida)	Cross-sectional	1596	Racial and ethnic Hispanic minority 18- to 39-year-old residents of 12 high-AIDS-incidence ZIP-code areas of Broward County (Florida)	Community (home)
What do men who serve as lay health advisers really do?: Immigrant Latino men share their experiences as <i>Navegantes</i> to prevent HIV	Vissman AT et al.	2009	To explore the experiences of male Latino LHAs (lay health advisers) within an HIV and STD prevention intervention: psychosocial and sociocultural influences on HIV risk, settings for risky behaviour, and personal changes from serving as <i>Navegantes</i> .	US (South Carolina)	Life histories	9	'Navegantes': Latinos men trained to advise about STD and HIV risk behaviours	Community (association)
Integrated community-based sexual health services for young people in urban areas: are we meeting the needs of the local community?	Forbes KM et al.	2008	To explore STI test acceptability and patient socio-demographic characteristics in a local STI clinic for young people.	UK (un-specified city)	Medical history review	117	Young people under 25 years attending a sexual health clinic in an area populated mostly by 'non-white people'	Health (health centre/clinics/GUs)

Title	Author	Year	Main objective	Location	Design	Sample size	Study population	Setting
Barriers to HIV testing for migrant black Africans in Western Europe	Fakoya I et al.	2008	To describe the major cultural, social, structural barriers to testing for HIV in black African immigrants (SSA) in western Europe (particularly in the UK and Netherlands). Includes a brief literature review.	UK and Netherlands	Documents/reports review	Not applicable	Migrant black Africans	Not applicable
Promoting HIV risk awareness and testing in Latinos living on the U.S.-Mexico border: the Tu No Me Conoces social marketing campaign	Olshefsky AM et al.	2007	This article describes the development, implementation and evaluation of an 8-week, culturally specific Spanish-language social marketing campaign targeting Latinos living on the California-Mexico border.	US (California)	Cross-sectional+ focus group	5 focus group (40 Latinos), 429 media exposure surveys	Campaign was in Spanish because the targeted audience was Latinos living near the California-Mexico border, including high-risk Latinos, transborder, farm workers, youth sex workers and MSMs	Community (various)
Migrant Latino day laborers and intentions to test for HIV	Ehrlich SF et al.	2007	To identify the characteristics of Latino migrant day labourers that are related to their intentions to test for HIV.	US (Berkeley, Oakland and Richmond)	Cross-sectional	290	Sexually active male Latino migrant day labourers who were 18 years of age or older	Community (street)
Correlates of late HIV diagnosis: implications for testing policy	Delpierre C et al.	2007	To develop new strategies aimed to reduce the delay in seeking HIV diagnosis; researchers proposed to identify correlates of late diagnosis of HIV infection in France. The survey aimed at describing the impact and determinants of HIV infection on the social situation of persons living with HIV-AIDS.	France (national)	Cross-sectional	1077	Eligible patients: individuals who were diagnosed as HIV1-infected for at least 6 months, aged 18 or older, and who had lived in France for at least six months. Patients with a very poor command of the French language were excluded	Health (several hospitals)
Immigration medical screening and HIV infection in Canada	Zencovich M et al.	2006	Results of the first two years of an active, immigration medical screening programme for HIV antibodies in applicants for permanent or temporary residency in Canada. Implications for immigrant health outcomes, programme impacts at the national and regional public health level, and the considerations for global public health policy related to HIV/AIDS are presented.	Canada (national)	Cross-sectional	634958	Applicants for long-term visas or asylum in Canada during 2003 and 2002, aged 15 years or older	Not applicable

Title	Author	Year	Main objective	Location	Design	Sample size	Study population	Setting
Assessment of the decision support needs of women from HIV endemic countries regarding voluntary HIV testing in Canada	Mitra D et al.	2006	To describe the decision support needs of immigrant and refugee women from HIV-endemic countries regarding decision-making about voluntary counselling and testing for HIV (VCT) in Canada; to describe the needs of practitioners who support these women in making this decision, in a culturally appropriate manner.	Canada (Ottawa)	In-depth interviews	12 practitioners and 8 patients	1) Informant group consisted of adult, English-speaking, immigrant and refugee women from HIV-endemic countries presently living in Ottawa. 2) The practitioner informant group consisted of VCT providers from diverse clinical backgrounds who primarily worked with immigrant populations.	Health (health centre/clinics/GUs)
Women who decline antenatal screening for HIV infection in the era of universal testing: results of an audit of uptake in three London hospitals	Conaty SJ et al.	2005	Audit of three obstetric units serving typically diverse multi-ethnic inner city populations regarding antenatal HIV testing, with the aim of assessing progress towards the NHS target of 90 per cent uptake and characterising women who declined HIV screening.	UK (London)	Cross-sectional	2710	All pregnant women that accessed antenatal care in the three maternity units during the study period.	Health (hospital)
The late diagnosis and consequent short-term mortality of HIV-infected heterosexuals (England and Wales, 2000-2004)	Chadborn TR et al.	2006	To describe the proportion of heterosexual individuals diagnosed late and identify factors associated with this and estimate the level of short-term mortality that could have been prevented had heterosexual individuals been diagnosed earlier.	UK (England and Wales)	Cross-sectional	15523	HIV-infected heterosexual individuals (aged 15 years and over) newly diagnosed in E&W between January 2000 and December 2004 (reported by the end of June 2005).	Not applicable
Predictors of HIV testing and intention to test among Hispanic farmworkers in South Florida	Fernandez MI et al.	2005	To examine the predictors of HIV testing and the factors associated with intention to accept a free HIV test in a community sample of 244 Hispanic migrant/seasonal farm workers recruited in South Florida.	US (South Florida)	Cross-sectional	244	Participants were 18 years of age or older, self-identified as Hispanic/Latino, and employed as farm workers	Community (public places)
HIV/AIDS and African immigrant women in Philadelphia: Structural and cultural barriers to care	Foley EE	2005	This qualitative study explores the perspectives of HIV service providers who are treating this new patient group; it examines the cultural and structural barriers African women face in the area of HIV prevention, testing, and treatment.	US (Philadelphia)	Focus group + in-depth interviews	8 focus groups, 3 in-depth interviews (interviews only with HIV-positive African women)	African immigrants infected with HIV in the Philadelphia area and healthcare providers	Community (home and African community associations)

Title	Author	Year	Main objective	Location	Design	Sample size	Study population	Setting
HIV-related risk behaviour among Hispanic immigrant men in a population-based household survey in low-income neighbourhoods of northern California	Levy V et al.	2005	To evaluate HIV risk behaviour and access to medical care and HIV testing among low-income Hispanic immigrant men, comparing recent immigrants with more established immigrants, in 3 northern California counties. Researchers compare HIV risk-related behaviours and access to care and testing among recent (in the US < 5 years) versus established (in the US > 5 years) Latino immigrants.	US (North-California)	Cross-sectional	410	Hispanic immigrant men, 18-35 years, residing in low-income census block group in 3 northern California counties (US)	Community (home)
Illnesses among recently immigrated children	Schwarz-wald H	2005	To summarise the major infectious diseases commonly diagnosed in children newly arrived in the US, with particular interest in children internationally adopted by US citizens.	US (national)	Documents/ reports review	Not applicable	Children under 16 years, immigrants in the US. With special emphasis on children adopted by US citizens	Not applicable
Demographics in HIV-infected children in Denmark: Results from the Danish Pediatric HIV Cohort Study	Schmid J et al.	2005	Study describes the socio-demographic and clinical characteristics of children <16 years with HIV infection in Denmark. Study is a descriptive analysis of a paediatric cohort that includes all children <16 years with HIV in Denmark. Estimation of the prevalence and incidence of HIV in this population.	Denmark (national)	Cohort study	89	Children diagnosed with HIV infection before the age of 16	Health (hospital)

Title	Author	Year	Main objective	Location	Design	Sample size	Study population	Setting
Emerging pediatric HIV epidemic related to migration	Mac-Pherson DW et al.	2006	Study describes the results of the first 3 years of a medical screening programme for HIV antibodies in selected children who were applicants for residency in Canada. Immigration medical screening data were provided by Citizenship and Immigration Canada.	Canada (national)	Cross-sectional	256970	The HIV-tested migrant groups included children (identified as being at risk) of applicants for permanent residence (immigrants and refugees) and those who filed refugee or asylum claims in Canada. Immigration medical screening, including routine HIV testing for those > 15 years of age is also required for members of some groups arriving in Canada, including visitors staying > 6 months who originate from certain locations (e.g., tourists, students, and seasonal workers).	Not applicable
Mayisha II: Pilot of a community-based survey of sexual attitudes and lifestyles and anonymous HIV testing within African communities in London	Sadler KE et al.	2006	Pilot study to assess the feasibility and acceptability of conducting anonymous HIV tests using oral fluid samples; survey on sexual habits and lifestyles in communities of black Africans in London. Study aims to estimate prevalence of HIV in this community in relation to potential risk practices and habits.	UK (London)	Cross-sectional + in-depth interviews	114	Black African communities > 16 years of living in London	Community (associations)
Rapid HIV testing among racial/ethnic minority men at gay pride events – nine U.S. cities, 2004-2006	Dowling T	2007	To describe and present results of rapid behavioural assessments and rapid HIV testing conducted at 11 racial-ethnic minority men at gay pride events in 9 US cities between 2004 and 2006.	US (Detroit, Baltimore, Jackson, Charlotte, St. Louis, District of Columbia, Oakland, San Francisco, Chicago)	Cross-sectional	627	MSM from social or racial minorities participating on gay pride events	Community (gay pride events)
Trends in HIV testing and differences between planned and actual testing in the United States, 2000-2005	Ostermann J et al.	2007	To describe longitudinal trends in HIV testing rates in the US population and differences between planned and actual testing across demographic and risk groups	US (national)	Cohort study	146868	Participants aged 18 to 64 years in the 2000-2005 National Health Interview Surveys	Community (home)

Title	Author	Year	Main objective	Location	Design	Sample size	Study population	Setting
Sexual health services for South Asians in London, UK: a case-control study	Tariq S et al.	2007	The objective of the study is to evaluate: mode of referral, number of sexually transmitted infections (STIs) and the uptake of HIV testing in patients of South Asian ethnicity compared with non-South Asians attending two London GU medicine clinics.	UK (London)	Case-control	458	New clinic attendees between January and September 2003 in two London genitourinary (GU) medicine clinics. Cases were defined as the first 125 new clinic attendees self-identified as South Asian. Controls were defined as subsequent new presentations self-identified as non-South Asian. Each case-control pair was matched for gender and centre.	Health (health centre/clinics/GUs)
Self-reported HIV testing behaviors among a sample of Southeast Asians in an urban setting in the United States	Huang ZJ et al.	2008	To examine self-reported HIV/STI testing behaviours and their correlates among a sample of Southeast Asians living in an urban setting in the United States.	US (Washington)	Cross-sectional	604	Self-identified as Cambodian, Laotian, or Vietnamese; 18 years of age or older; residing in the Washington, DC metropolitan area.	Community (public places)
Social, behavioural, and intervention research among people of sub-Saharan African origin living with HIV in the UK and Europe: Literature review and recommendations for intervention	Prost A et al.	2008	To describe and summarise the literature on social, behavioural, and intervention research among African communities affected by HIV in the UK and other European countries in order to make recommendations for future interventions.	Europe	Articles review	Not applicable	People of sub-Saharan African origin, both recent migrants, as well as second and third generation migrants	Not applicable
Are women from high-risk ethnic minority groups more likely to decline antenatal HIV screening?	Southgate J et al.	2008	To analyse whether women belonging to ethnic groups at high risk for HIV reject performing the test during pregnancy in a higher percentage than other groups.	UK (London)	Cross-sectional	1586	Women delivering at Milton Keynes Hospital between January-June 2005	Health (hospital)
HIV infection late detection in AIDS patients of an European city with increased immigration since mid 1990s	Carnicer-Pont D et al.	2009	To identify predictors of HIV infection late detection in an European city with increased immigration; determine the effects of HAART era in HIV infection detection	Spain (Barcelona)	Epidemiological surveillance data	6186	All patients detected through the AIDS registry of Barcelona, over 13 years of age, between 1987 and 2006	Not applicable
The five-year impact of an evolving global epidemic, changing migration patterns, and policy changes in a regional Canadian HIV population	Krentz H and Gill MJ	2009	To evaluate the impact of changing Canadian immigration law in 2001 on the epidemiology of HIV in immigrants and refugees in Alberta.	Canada (Southern Alberta)	Cohort study	692	All HIV-positive individuals enrolled in care at the Southern Alberta Cohort between 2001 and 2007 were included and subdivided by self-reported country of birth.	Health (hospital)

Title	Author	Year	Main objective	Location	Design	Sample size	Study population	Setting
Clinicoepidemiological characteristics of HIV-infected immigrants attended at a tropical medicine referral unit	Perez-Molina JA et al.	2009	To describe the clinical and epidemiological characteristics of HIV-positive immigrants who come for the first time to a tropical medicine unit in Madrid (between 1997 and 2006) and compare their clinical features according to their place of origin.	Spain (Madrid)	Medical history review	1609	HIV-infected immigrants attending in the Department of Infectious Diseases at the Ramón y Cajal Hospital in Madrid	Health (hospital)
HIV-related admissions to a district general hospital in the UK: a single centre study	Udayaraj UP et al.	2009	To analyse patient characteristics, clinical presentation, potential cost implications and short-term mortality of patients admitted with HIV-related illnesses	UK (West Berkshire)	Medical history review	64	All patients aged over 18 years with either a pre-existing diagnosis of HIV infection or with a newly diagnosed HIV infection	Health (hospital)
Why the(y) wait? Key informant understandings of factors contributing to late presentation and poor utilization of HIV health and social care services by African migrants in Britain	Burns FM et al.	2007	To identify the key issues and barriers affecting utilisation of HIV services for Africans in Britain	UK (national)	In-depth interviews	11	The sampling frame consisted of key informants in the field of HIV and African communities, and organisations within these. By looking at the organisational level, key people became identifiable, as the field of HIV and African communities in the UK is comparatively small.	Not specified
Lo Siento Pero Usted No Está Bienvenido: U.S. travel policies and immigration laws for HIV-infected persons	Jones KG and Jones SG	2008	To provide a brief overview of U.S. travel policies and immigration laws related to HIV	US (national)	Documents/reports review	Not applicable	Not applicable	Not applicable
Barriers to HIV-Testing Among Hispanics in the United States: Analysis of the National Health Interview Survey, 2000	Lopez-Quintero C et al.	2005	To analyse HIV test barriers, intention to have an HIV test and HIV risk perception in Hispanic subgroups living in the US.	US (national)	Cross-sectional	4261	Civil Hispanic population was selected from the National Health Survey, non-institutionalised adults (> 18)	Community (home)
Diagnosis and stigma and identity amongst HIV positive Black Africans living in the UK	Flowers P et al.	2006	To explore the social and psychological impacts of an HIV diagnosis on Black Africans living in the UK, in the broader context of the participants' lives.	UK (London)	In-depth interviews	30	Black-Africans HIV positive living in UK	Health (Health centre/clinics/GUs) and community (associations)
HIV voluntary counselling and testing for African communities in London: learning from experiences in Kenya	Prost A et al.	2007	To explore the feasibility and acceptability of translating a successful voluntary counselling and testing (VCT) service model from Kenya to African communities in London.	UK (London)	Focus groups	5 focus groups (42 participants from 14 African countries); a workshop with 28 key informants	African population and key informants of this population living in London	Not specified

Title	Author	Year	Main objective	Location	Design	Sample size	Study population	Setting
Epidemiology of HIV among black and minority ethnic men who have sex with men in England and Wales	Dougan S et al.	2005	To examine the epidemiology of HIV among black and minority ethnic men who have sex with men in England and Wales.	UK (England and Wales)	Epidemiological surveillance data	1040	MSM living in England and Wales, with HIV diagnosed between 1997-2002	Not applicable

Annex 4. Migrant groups identified as at risk for HIV in documents reviewed

Country	Groups mentioned	Title and date
Belgium	Migrants	Les strategies concertées du secteur de la prévention des IST/SIDA en Communauté française de Belgique. Les migrants (2009) Proactief HIV-testen en – counselen voor subsaharaans afrikaanse migranten in Vlaanderen. Een handleiding voor de arts (2010)
Bulgaria	Migrants and mobile populations	National Programme for Prevention and Control of HIV and STI 2008-2015
Denmark	Migrants from Africa, Asia, South America and Eastern Europe; anyone who has had sex with persons from high-risk areas or has been in such areas	EPI-news: National surveillance of communicable diseases, No 46 (2009)
France	People originating from regions of high-prevalence countries (sub-Saharan Africa and the Caribbean)	HIV screening in France: Public health guidelines (2009)
Germany	People with a migration background; specifically those coming from high-prevalence countries (>1%) (sub-Saharan Africa, Asia and Eastern Europe)	Action Plan to implement the Strategy of the Federal Government to fight HIV/AIDS (2007)
Iceland	Migrants	Procedures for the Medical Examination of Immigrants to Iceland (2007)
Ireland	People from high-prevalence countries	HIV and AIDS Education and Prevention Plan 2008-2012
Lithuania	Migrant populations	National HIV/AIDS and STI Prevention and Control Programme 2010-2012
Luxembourg	People from sub-Saharan Africa, Asia and Eastern Europe; target groups of residents with foreign origin	Strategie et plan action sida 2006-2010 (2006)
Netherlands	People from high-HIV-prevalence countries (sub-Saharan Africa)	Regeling: Aanvullende Curatieve Soa-bestrijding (2008)
Norway	Asylum seekers, refugees and people with a migrant background from high-prevalence countries	Acceptance and coping: National HIV strategy 2009-2014 (2009)
Poland	Migrants	Polskie Towarzystwo Naukowe AIDS. REKOMENDACJE PTN AIDS 2006 Zasady Opieki Medycznej nad Osobami Zakażonymi HIV
Portugal	Migrants, refugees and displaced persons	National HIV/AIDS Prevention and Control Programme 2007-2010
Romania	Roma communities	National strategy for surveillance, control and prevention of HIV/AIDS 2004-2007
Slovakia	Migrants; all foreigners coming to the Slovak Republic for a long time	Odborné usmernenie na zabezpečenie prevencie infekcie spôsobenej vírusom imunitnej nedostatočnosti človeka v Slovenskej republike
Spain	Migrants	Multisectoral Plan on HIV/AIDS 2008-2012
Sweden	People from foreign backgrounds	National Strategy to Combat HIV/AIDS and Certain Other Communicable Diseases (2007)
Switzerland	People from countries with a generalised epidemic	Recommendations of the Public Health Federal Office for HIV Voluntary Testing and Counselling (2007)
UK	People from high-HIV-prevalence countries	UK National Guidelines for HIV testing (2008)