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NOVEMBER
EUROPEAN
HIV
TESTING
WEEK
2013
TALK HIV.TEST HIV.

Toolkit 3

**Dossier of evidence: a
summary of the
evidence to support free,
confidential and
voluntary HIV testing**

**Background
information to the
slide set**

Toolkit 3

Dossier of evidence: a summary of the evidence to support free, confidential and voluntary HIV testing

Thank you for downloading the background information to the dossier of evidence slide set

The dossier of evidence has been developed to help support organisations, like yours, during the European HIV testing week. We see the dossier of evidence being useful to you in two ways:

1. To improve and increase understanding within organisations around the necessity of increasing HIV testing activities
2. For advocacy purposes to support engagement with cooperating partners (such as policy makers, national and local HIV/AIDS programme planners and coordinators, healthcare providers and civil society organisations) with the aim of gaining their support for endorsing regular HIV testing

This background information has been drafted to provide additional information that is not included on the slides and to help support you if you are presenting the dossier of evidence to relevant governing bodies, partners and organisations. The information included in both documents provides support and evidence to back up the key messages for the European HIV testing week.

This document includes:

- Section 1 – List of abbreviations and definitions
- Section 2 – Key messages for the testing week
- Section 3 – Know your HIV epidemic: the situation of HIV in Europe
- Section 4 – Late diagnosis of HIV infection
- Section 5 – Characteristics of persons with late diagnosis
- Section 6 – Consequences of late diagnosis
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This document aims to provide support and guidance only and it is not mandatory that your organisation uses the information outlined in this document nor is it

obligatory to use the dossier of evidence as part of your testing week activities. If you have any questions do get in touch: hiveurope@cphiv.dk.

Please also remember we are active on Facebook (facebook.com/EuroHIVtestweek) and Twitter (twitter.com/EuroHIVtestweek). Tell us about your plans, share information and photos and tweet us to help build anticipation and excitement for the week.

Section 1 – List of abbreviations and definitions

Abbreviations used in this document

AIDS	Acquired immunodeficiency syndrome
ART	Antiretroviral treatment
CD4	Cluster of differentiation (a measure of white blood cells used to measure HIV infection)
ECDC	European Centre for Disease Prevention and Control
HIV	Human immunodeficiency virus
HTC	HIV testing and counselling
IDU	Injecting drug user
MSM	Men who have sex with men
NGO	Non-governmental organisation
PLHIV	People living with HIV
STI	Sexually transmitted infection
SW	Sex worker
TB	Tuberculosis
UNAIDS	United Nations Joint Programme on HIV/AIDS
US CDC	Centre for Disease Control
WHO	World Health Organisation

Definition of countries in the WHO European Region

Western Europe: Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, United Kingdom.

Central Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Hungary, the former Yugoslav Republic of Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Turkey.

Eastern Europe: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

Section 2 – Key messages for the testing week

Overview of the key messages

Included in this section are the key messages for the European HIV testing week. The overarching goal of the HIV testing week is to increase awareness of the benefits of HIV testing so that more people become aware of their HIV status. The information included in the dossier of evidence provides the data to support the rationale for this and the key messages for the European HIV testing week.

Overarching message

HIV in Europe is calling for the European community to unite for one week to increase awareness of the benefits of HIV testing; so that more people are aware of their HIV status and can access treatment.

Messages for policy makers and organisations

1. Treatment advances over the past 30 years have transformed a positive HIV diagnosis from a death sentence into a manageable medical condition and the majority of people living with HIV can now live healthy lives if diagnosed and treated early
2. The unacceptable reality is that 30-50% of the 2.3 million people living with HIV in Europe are unaware that they are HIV positive; and 50% of those who are positive are diagnosed late, delaying access to treatment
3. Increasing access to and acceptance of free, confidential and voluntary HIV testing and linkage to treatment and care need to continue to be a priority for governments across Europe
4. When people are diagnosed with HIV late they are less likely to respond well to treatment and more likely to suffer with health complications, which puts a greater financial burden on the individual as well as the health system
5. Late diagnosis and delayed access to treatment are the most important factors associated with HIV related illness and death, and also affects onward transmission
6. Self-stigma associated with HIV, reinforced by societal stigma, can prevent people from getting tested
7. New technology means that getting tested for HIV is quicker and easier than ever before in most settings across Europe

Messages for people who ought to get an HIV test

Target audience: Key populations and people at higher risk

1. You should get tested for HIV at least once a year – more frequently if you remain at risk

2. HIV treatments available today mean that you can live healthily for a long time if you are diagnosed early
3. You are more likely to pass on HIV to others when you don't know your status and you are not on treatment
4. You can help eradicate the unnecessary stigma associated with HIV by being more open to talking about HIV, where possible
5. If you test positive for a sexually transmitted infection, hepatitis C or tuberculosis, make sure you get an HIV test
6. Between testing it is important to reduce your risk of infection by always using a condom
7. If you test HIV positive you should be offered access to appropriate treatment and care

Messages for people who should be offering HIV tests

Target audience: Healthcare professionals and testing programme managers

1. HIV testing should be offered in a wider range of settings than is currently the case, including both healthcare and community based settings, as well as outreach programmes
2. When people are tested for or diagnosed with other sexually transmitted infections, hepatitis C and tuberculosis, they should also be offered an HIV test
3. It should be common practice that all patients presenting with other signs and symptoms that could be related to HIV infection or with specific indicator conditions are offered an HIV test
4. HIV testing should be routinely recommended to individuals who may have been exposed to HIV
5. Don't be afraid to talk about HIV, offer an HIV test in the same way you would other routine tests as research shows that most people accept an HIV test when offered
6. HIV tests should be voluntary and offered in an appropriate setting, protecting the individual's rights to privacy and confidentiality
7. A positive HIV test result should always mean that your patient is linked to appropriate care and treatment

Section 3 – Know your HIV epidemic: the situation of HIV in Europe

This section includes an overview of the content contained on slides 3 to 10.

Situation of HIV in Europe

HIV remains a major public health problem in Europe and it is estimated that approximately 2.3 million people are living with HIV in the WHO European Region – approaching 1 million in Western and Central Europe and 1.4 million in Eastern Europe and Central Asia.

It is further reported that as many as one-third of those infected in the European Union countries are unaware of their HIV status and that in some Eastern European countries this proportion is up to 50%.

The number of PLHIV and those who are unaware of their infection have been estimated by Hamers & Phillips and the ‘Working Group on Estimation of HIV Prevalence in Europe’ and although some countries have missing or low quality data, mathematical modelling has made it possible to make sound estimates.

The estimates of the proportion of undiagnosed PLHIV in European countries where published data are available are shown here:

Proportion of undiagnosed people living with HIV	
Czech Republic	20-25%
Denmark	15-20%
France	30%
Germany	25-30%
Italy	25%
Latvia	50%
The Netherlands	40%
Norway	15%
Poland	50%
Slovakia	20-30%
Sweden	12-20%
United Kingdom	30%

In 2006, 25 EU member states plus 5 non-EU countries and WHO, UNAIDS, US CDC, ECDC and civil society organisations identified the high number of undiagnosed HIV infections as one of the key prevention priorities. In 2010 WHO published a policy framework for 'Scaling up HIV testing and counselling in the WHO European Region'. In this framework it was set out that to be effective, testing strategies should target populations at higher risk of HIV in a variety of healthcare and community based settings.

Addressing the European HIV epidemic, therefore, hinges on understanding predictors of late diagnosis, barriers to HIV testing among populations at high risk and involvement of healthcare providers not normally involved in HIV testing to propose HIV testing to both people from high risk populations and to people with conditions indicating HIV infection.

Scaling up HIV testing to increase the number of people who are aware of their status is a public health imperative in its broadest sense – it reduces the morbidity and mortality of individuals, it reduces the HIV transmission rate and it has proven to be an economically sound approach.

The HIV epidemic varies in the European regions. The HIV epidemic in Western and Central Europe has stagnated while it is escalating in Eastern Europe and Central Asia. In Western Europe HIV is mostly transmitted among MSM whereas heterosexuals and IDUs are most at risk in Eastern Europe.

European HIV testing guidelines recommend that voluntary, confidential and free HIV testing should be available in a variety of settings. Routine and universal testing should be offered to attendees of specified services such as STI clinics, antenatal care clinics and drug dependency services. Testing should also be available through community testing sites and outreach activities targeting key populations at high risk of HIV. Robust monitoring and evaluation is key when carrying out HIV testing activities.

HIV testing and HIV diagnosis are crucial first steps to treatment and care of PLHIV. However, a study from France has shown that there is a large gap between the number of HIV infected and the number of HIV diagnosed (100% versus 81%) (Supervie et al 2012). Increased testing is an important step in order to decrease this gap. While ART coverage has expanded in most countries, the scale-up in Eastern Europe and Central Asia lags far behind the increase in new infections, and limited access to ART in many countries contributes significantly to high levels of late presentation.

Although the overall situation is better in Western Europe, there are many settings there where HIV test access, uptake and linkage to care remain poor. Published data from European countries on linkage to HIV medical care and treatment are, however, lacking and few countries monitor HIV quality of care locally or nationally.

Recent data has shown that a rise in HIV-incidence has occurred in MSM in the UK despite an only modest increase in levels of sex without a condom. They conclude that ART has almost certainly exerted a limiting effect on HIV incidence and that higher rates of HIV testing combined with initiation of ART at diagnosis would be likely to lead to substantial reductions in HIV incidence. (Phillips et al).

Further reading

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2. Working Group on Estimation of HIV Prevalence in Europe. HIV in hiding: methods and data requirements for the estimation of the number of people living with undiagnosed HIV. AIDS, 2011.
3. HIV in Europe. HIV Indicator Conditions: Guidance for implementing HIV testing in adults in Health Care Settings, 2012.
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7. Gardner et al. The Spectrum of Engagement in HIV Care and its Relevance to Test-and-Treat Strategies for Prevention of HIV Infection. Clinical Infectious Diseases, 2011.
8. Phillips AN. et al. Increased HIV Incidence in Men Who Have Sex with Men Despite High Levels of ART-Induced Viral Suppression: Analysis of an Extensively Documented Epidemic. PLOS ONE, 2013.

Section 4 – Late diagnosis of HIV infection

This section includes an overview of the content contained on slides 11 to 16.

Late presentation for HIV care: definition

The expression 'late presentation' reflects people who are unaware of their HIV infection and do not test until the CD4 count has declined below a certain level.

The use of diverse definitions of late presentation of HIV infection has been a problem for years, but in October 2009 a consensus definition was reached. It was agreed that late presentation is when:

- persons present for care with a CD4 count below 350 cells/mL
- or present with an AIDS-defining event, regardless of the CD4 cell count

It was further agreed that presentation with advanced HIV disease is when:

- persons present for care with a CD4 count below 200 cells/mL
- or present with an AIDS-defining event, regardless of the CD4 cell count

Late diagnosis in Europe: EU/EEA countries

ECDC/WHO Europe writes in the report 'HIV/AIDS surveillance in Europe 2011': 'In 2011, information on CD4 cell counts at the time of diagnosis was available from 21 countries for 15,625 cases (56% of all cases reported in 2011). Among those, half of them (49%) were reported as late presenters (CD4 cell count $<350/\text{mm}^3$), including 29% of cases with advanced HIV infection (CD4 $<200/\text{mm}^3$).'

'The proportion of late presenters were highest among heterosexually acquired cases originating from sub-Saharan African countries (63%) and among IDUs (48%). The lowest proportions of late presenters were observed in MSM (38%) and in cases of mother-to-child transmission (21%). The percentage of late presenters ranges from 27% in the Czech Republic and 33% in Romania, to 56% in Italy.'

'It is a concern that 50% of the HIV cases with information on CD4 cell counts have a low count ($<350/\text{mm}^3$) at the time of diagnosis; these so-called late presenters reflect the low access to, and uptake of, HIV testing. Delayed initiation of antiretroviral treatment decreases the clinical benefits, as well as the preventive value of the treatment in further HIV transmission.'

'Throughout Europe, HIV counselling services need to be promoted and accessible to ensure earlier diagnosis and timely initiation of HIV treatment and care. This will result in improved treatment outcomes and clinical benefits, as well as contribute to preventing or reducing further HIV transmission.'

The 21 EU/EEA countries that reported national percentages of late presenters in 2011 are:

EU countries			
Late presentation for 2011			
Austria	50%	Greece	53%
Belgium	41%	Ireland	52%
Bulgaria	46%	Italy	56%
Cyprus	48%	Malta	66%
Latvia	44%	The Netherlands	43%
Luxembourg	44%	Portugal	68%
Czech Republic	27%	Romania	33%
Denmark	49%	Slovakia	38%
Finland	54%	Spain	46%
France	50%	United Kingdom	48%

Late presenters in Europe: non-EU/EEA countries

In 7 non-EU/EEA European countries the situation is even worse. In this region close to 2 out of 3 PLHIV present late and 38% present with advanced HIV infection. The 7 countries with reported data on late presenters in non-EU/EEA countries in Europe are:

Non-EU countries			
Late presentation for 2011			
Armenia	52%	Montenegro	22%
Azerbaijan	66%	Serbia	58%
Bosnia and Herzegovina	64%	Tajikistan	76%
Israel	54%		

Further reading

1. Antinori A et al. Late presentation of HIV infection: a consensus definition HIV Medicine, 2011.
2. ECDC/WHO Europe. HIV/AIDS surveillance in Europe 2011 by ECDC/WHO Europe, 2012.

Section 5 – Characteristics of persons with late diagnosis

This section includes an overview of the content contained on slides 17 to 19.

Late diagnosis

Late diagnosis of HIV infection and entry into care remains a substantial problem across Europe according to a study published in PLOS Medicine, September 2013. The study, which was an international collaboration led by Amanda Mocroft from University College London, UK, analysed data from the COHERE study, an international collaboration including over 84,000 individuals with HIV infections from 35 European countries from January 2000 to January 2011.

The researchers analysed data from over 20 observational studies from across Europe that contribute data to the COHERE collaboration and found that nearly 54% of the participants diagnosed with HIV presented late to a clinic, that is they had a CD4 count of less than 350 cells/mm³ or an AIDS-defining illness within 6 months of HIV diagnosis within the time period studied.

Researchers found that late presentation decreased from 57.3% in 2000 to 51.7% in 2010/11 across all populations. However, in some sub-populations, such as injecting drug users in Southern Europe, late presentation increased over the same period. Furthermore, late presentation was found to be associated with an increased rate of AIDS related deaths, particularly in the first year after HIV diagnosis. They also found that less than 10% of individuals had delayed entry into care after diagnosis, although this information was only available for a minority of patients.

Characteristics of late presenters

Across Europe the most common characteristics of individuals with late diagnosis include:

- migrant status
- being older
- being heterosexual (not in Eastern Europe)
- living in low HIV prevalence areas
- being male
- having children

These characteristics are, however, overall findings. For example, most studies indicate that heterosexuals are at greater risk of late diagnosis than MSM – but in Eastern Europe it appears that MSM are more likely to present late.

Characteristics of late presenters thus vary from country to country and depend on local barriers to testing – on patient, healthcare provider and institutional levels. The

prevalence of late presentation reflects a number of risk factors, some of which are presented on slide 19.

Further reading

1. Mocroft A et al. Risk Factors and Outcomes for Late Presentation for HIV-Positive Persons in Europe: Results from the Collaboration of Observational HIV Epidemiological Research Europe Study (COHERE). PLoS Med, 2013.
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5. Mounier-Jack S, Nielsen S & Coker RJ. HIV testing strategies across European countries. HIV Medicine, 2008.

Section 6 – Consequences of late diagnosis

This section includes an overview of the content contained on slides 20 to 31.

Consequences of late diagnosis

The consequences of late presentation are alarming, for the patient in terms of increased morbidity and mortality and for society in terms of increased transmission of HIV to uninfected people. This in turn impacts upon the health system in terms of the resulting higher cost of care.

Consequences of late diagnosis: increased morbidity and mortality

Several studies have demonstrated severe health consequences of late HIV diagnosis with highly increased morbidity and mortality. Earlier HIV diagnosis is one of the most important factors associated with better life expectancy. A study has shown that people who are diagnosed early and have access to a variety of current drugs can expect nearly the same life expectancy as that of HIV negative individuals.

For more specific information, see the further reading section.

Consequences of late diagnosis: increased transmission of HIV to uninfected people

When people are unaware of their positive HIV status they have a higher risk of transmitting HIV to other (uninfected) people – studies have shown that a diagnosis of HIV motivates a proportion of infected individuals to adopt behaviour that reduce risk of infecting HIV-negative people.

Based on modelling data, half or more of new infections in the US derive from PLHIV who are not yet diagnosed and therefore unaware of the possible risk of transmission.

In addition, if the person living with HIV is on ART this will (if well treated) reduce the viral load which dramatically decreases the possibility of onwards transmission (a decline of 96% has so far been reported between early vs. delayed initiation of ART).

A recent study from the United Kingdom found that the source of most new infections is from undiagnosed men. An increase in HIV incidence in the last 10 years despite a gradually larger percentage of MSM on fully suppressive ART has been observed. As PLHIV are less infectious when on fully suppressive ART this increase is likely to be explained by more condom-less sexual behaviour. This study demonstrates that increase of testing leads to a decrease in transmission (Phillips A et al 2013).

Consequences of late diagnosis: increased economic burden for health systems

People with HIV infection, who present late for care, incur higher cumulative direct HIV treatment expenditures than those who present earlier in the disease process.

A study from the US (Fleishman) has shown that:

- Mean medical care expenditures for late presenters were 1.5 to 3.7 times as high as expenditures for early presenters, similar to a Canadian study. Although expenditure differences between late and early presenters narrowed for those with more than 5 years in care, late entry was still associated with higher cumulative expenditures than early entry, even among those with 7 to 8 years of primary HIV care.

In another US study (Krentz & Gill) it is concluded that:

- Costs remain high or are increasing in patients with CD4 counts ≤ 75 cells/mL. Patients with very low CD4 cell counts are either long-term patients experiencing a serious decline in health following failure of ART or disconnection from healthcare, or are more recently diagnosed patients (i.e. late presenters) who were unaware of their HIV status until they were hospitalised with AIDS. Such patients with low CD4 levels usually require intense monitoring with frequent clinic visits, lab tests and complex ART regimens.

There are several benefits of early diagnosis and HIV testing has proven to be cost-effective. Studies suggest that HIV testing remains cost-effective as long as the undiagnosed HIV prevalence is above 0.1% (Krentz HB & Gill MJ 2008).

Further reading

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2. Moreno S, Mocroft A & Monforte A. Review: Medical and Societal consequences of late presentation. *Antiviral Therapy*, 2010.
3. Antinori A, Johnson M, Moreno S, Rockstroh JK & Yasdanpanah Y. Editorial: Introduction to late presentation for HIV treatment in Europe. *Antiviral Therapy*, 2010.
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Section 7 – Barriers to HIV testing

This section includes an overview of the content contained on slides 32 to 38.

Barriers to HIV testing

Despite the expectation that ART would lead individuals to seek earlier testing, this trend has not been observed in practice, with stable or even increasing rates of late diagnosis in Europe being witnessed. It is therefore important to examine barriers to HIV testing. Barriers to HIV testing vary from country to country but are usually present at three different levels:

1. Patient level
2. Healthcare provider level
3. Institutional/policy level

Patient level

Barriers to testing at patient level vary from country to country, between different groups (high risk vs. low risk groups) and depend on a variety of personal/individual perceptions of being infected with HIV.

The most often mentioned barriers at this level are:

- Low-risk perception
- Fear of HIV infection and its health consequences
- Fear of disclosure (worries about stigma, discrimination and rejection by significant others)
- Denial
- Difficulty accessing services, especially migrant populations

Additional barriers include:

- Poor accessibility of health services
- Lack of information on HIV testing
- Concerns about being associated with stereotyped groups (MSM, IDUs, SWs)
- Fear of mistreatment by healthcare workers
- Concerns about losing their employment or schooling
- Fear of losing spouse/partner, friends or family and ability to marry
- Fear that their children would be stigmatised

Healthcare provider level

In 2008, a study revealed that not all European countries have national guidelines on HIV testing. Furthermore, there is a great variety of testing strategies across Europe – clear guidance should be defined at national (and European) level (Mounier-Jack et al. 2008).

In many European countries TB patients, STI patients and pregnant women are HIV tested on a routine basis. Routine HIV testing could – and should – be offered in all healthcare settings where high-risk individuals are seen on a regular basis (e.g. IDUs treatment centres, STI clinics, etc.).

The WHO/UNAIDS guidance on provider-initiated HIV testing and counselling in health facilities (2007) recommends that HIV testing should normally be performed at the initiative of healthcare providers, much like other routine investigations, unless the patient declines. Several studies have demonstrated that direct verbal offers of HIV testing improve uptake rates in different healthcare settings (Yazdanpanah et al 2010).

Barriers among healthcare providers may include:

- Healthcare providers are anxious (or even reluctant) to raise questions about HIV
- Lack of time for pre-test counselling or suitable location for counselling
- Concerns about distressing the patients and harming the doctor-patient relationship
- Lack of knowledge about HIV and HIV testing
- Lack of capacity for general practitioner/family doctor to offer testing and to communicate benefits of testing
- Anxiety on the part of the doctor about how to manage a positive result
- Feeling deskilled/need of training
- Patient not perceived to be at risk

Many of the above mentioned barriers depend on the attitude of the individual healthcare provider. Healthcare providers should be trained to be more proactive and confident in addressing HIV testing.

Institutional/policy level

Barriers to HIV testing at the institutional/policy level include: lack of training of health staff, inadequate financial resources and a lack of national guidelines for HIV testing.

The dossier of evidence focuses on provider-initiated indicator condition-guided HIV testing and legal issues – including laws that jeopardise HIV prevention efforts.

In the majority of European countries the routine of provider-initiated HIV testing in regard to STI patients and pregnant women has been implemented with great success and studies show that direct offers of HIV testing improve uptake rates (Yazdanpanah et al. 2010).

HIV testing on basis of HIV indicator diseases – in healthcare settings where HIV testing may not be undertaken as part of the standard medical care for patients – has also proven both feasible and cost-effective. Indicator condition-guided HIV testing should be considered as an additional element of an overall comprehensive national HIV testing strategy (HIV in Europe 2012).

Institutional/policy level: laws and justice system

Laws safeguarding dignity, health and justice are essential to effective HIV responses. The legal environment – laws, enforcement and justice systems – has immense potential to improve the quality of life of PLHIV and to curb the HIV epidemic.

‘The Global Commission on HIV and the Law’ concluded after 18 months of extensive research, consultation and analysis (UNDP, HIV/AIDS Group, 2012) that punitive laws, discriminatory and brutal policing and denial of access to justice for people with and at risk of acquiring HIV are fuelling the epidemic.

These legal practices create and punish vulnerability. They promote risky behaviour, hinder people from accessing prevention tools and treatment, and exacerbate the stigma and social inequalities that make people more vulnerable to HIV. The Commission further concluded that many countries have laws that criminalise exposure to HIV or to transmit it, especially through sex. Such laws do not increase safer sex practices. Instead, they discourage people from getting tested or treated, in fear of being prosecuted for passing HIV to lovers or children.

The Commission also concluded that worldwide 123 countries have legislation to outlaw discrimination based on HIV; 112 legally protect at least some populations based on their vulnerability to HIV. But these laws are often ignored, laxly enforced or aggressively flouted. It is a common understanding that laws, based on evidence and grounded in human rights principles, are a relatively low-cost way of controlling HIV and reducing stigma.

Example: legislative and social environments affecting MSM

The legal situation facing MSM, and the social regulation of homosexuality, varies across the European region. There is a clear pattern of increased restrictiveness in the East compared to the West. In part, this is because membership of the European Union requires the repeal of anti-homosexuality legislation, and the Treaty of Amsterdam requires its Member States to enact anti-discrimination legislation (World Bank & WHO, HIV in the European Region, Policy Brief, 2013).

Slide 37 shows the legislative and social environments affecting MSM in the European Region. Some countries display every feature of an enabling environment in terms of legislation, social inclusion and acceptance, including the recognition of civil partnership or marriage. In other countries sex between two consenting male adults remains illegal and in a few countries sex between men is punishable by imprisonment.

Further reading

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20. <http://www.plosone.org/article/info:doi/10.1371/journal.pone.0013132>

Section 8 – Overcoming barriers to HIV testing

This section includes an overview of the content contained on slides 39 to 47.

Implementation of national HIV testing guidelines

Countries of Europe vary widely in their political and social approaches to HIV. However, to ensure that a national HIV testing strategy takes an ethical approach based on human rights countries need to adhere to core principles for HIV testing.

WHO has outlined 10 main principles for HIV testing (2010) including detailed recommendations for endeavouring the scaling up of HIV testing. The 10 main principles are as follows:

10 main principles for HIV testing

1. Scaling up HIV testing and counselling is both public health and human rights imperative and must be linked to broader efforts to achieve universal access to comprehensive, evidence-based HIV prevention, treatment, care and support
2. Expanded HIV testing and counselling must be tailored to different settings, populations and client needs
3. Efforts to increase access to and uptake of HIV testing and counselling should include implementation of provider-initiated testing and counselling in health facilities when appropriate
4. Efforts to increase access to and uptake of HIV testing and counselling must meet the needs of vulnerable populations at higher risk of HIV and expand beyond clinical settings and involve civil society and community-based organisations in providing the HIV testing and counselling services
5. Rapid HIV tests should be used where appropriate
6. Regardless of where and how HIV testing is done, it must always be voluntary and with the informed consent of the person being tested, adequate pre-test information or counselling, post-test counselling, protection of confidentiality and referral to services
7. HIV testing policies and practices should be reviewed to eliminate any non-voluntary forms of testing
8. Efforts to increase access to and uptake of HIV testing and counselling must be accompanied by equal efforts to ensure supportive social, policy and legal environments
9. In each country, consultations should be undertaken to formulate plans for expanded HIV testing and counselling based on this framework
10. Efforts to expand access to HIV testing and counselling must be carefully monitored and evaluated

Outreach to populations at a higher risk of HIV

Many people belonging to the populations at higher risk of HIV (including IDUs, MSM, SW, migrants and mobile populations and national minorities) are in limited contact with the healthcare system.

WHO (2010) notes that:

‘Many in these traditionally underserved and socially marginalised communities [...] require other sources of safe, voluntary and accessible HTC (HIV testing and counselling), offered or recommended to them in a peer-driven and non-judgmental manner.’

‘Examples include services by mobile clinics, community settings or other outreach, for example by empowering nongovernmental, community-based organisations to provide HIV tests to their peers ‘where they are’. For people who use drugs, HTC may be offered or recommended at needle and syringe programmes and other harm-reduction services, drop-in centres or outreach programmes.’

‘Establishing such services acknowledges that many individuals may prefer to test in non-medical settings or may not be registered with primary care.’

‘Studies have shown that such services are acceptable and feasible and may encourage potentially high-risk and vulnerable individuals who would not otherwise have accessed HIV testing through conventional services.’

‘Therefore, developing them as a complement to expanding health-care-based services should be encouraged. In some countries, this may require changes to laws and policies, including allowing non-healthcare professionals, including those in NGOs, to offer or recommend and perform HTC. Development of the services should be accompanied by social mobilisation and education initiatives to encourage people belonging to most at risk populations and vulnerable populations to learn their HIV status and access services.’

Normalisation of HIV testing

Several studies have demonstrated that HIV testing can be normalised in various settings and patient groups. One study has shown that offering an HIV test is acceptable to 83% of acute medical patients (Ellis S et al 2011), but another study suggests that tests are often not offered, e.g. only 43% of cases of TB were tested for HIV (Thomas William S et al 2011). Offer of universal screening to a particular group may increase testing rate as shown by a study from the United Kingdom in which opt-out (automatic) HIV testing lead to increased testing rates, e.g. 96% for antenatal screening in the United Kingdom in 2010.

Overcoming barriers: HIV indicator conditions

In an indicator condition-guided HIV testing strategy, all patients presenting to any healthcare setting with specific indicator conditions, would be routinely recommended an HIV test. Routine testing for conditions with an HIV prevalence of >0.1% has been reported to be cost-effective and has the potential to increase earlier diagnosis of HIV, leading to earlier opportunities for care and treatment.

The guidelines recommend that any person (not known to be HIV positive) presenting with potentially AIDS defining conditions should be strongly recommended HIV testing.

AIDS defining conditions are:

Neoplasms

- Cervical cancer
- Non-Hodgkin lymphoma
- Kaposi's sarcoma

Bacterial infections

- Mycobacterium tuberculosis, pulmonary or extrapulmonary
- Mycobacterium avium complex (MAC) or Mycobacterium kansasii, disseminated or extrapulmonary
- Mycobacterium, other species or unidentified species, disseminated or extrapulmonary
- Pneumonia, recurrent (2 or more episodes in 12 months)
- Salmonella septicaemia, recurrent

Viral infections

- Cytomegalovirus retinitis
- Cytomegalovirus, other (except liver, spleen, glands)
- Herpes simplex, ulcer(s) >1 month/bronchitis/pneumonitis
- Progressive multifocal leukoencephalopathy

Parasitic infections

- Cerebral toxoplasmosis
- Cryptosporidiosis diarrhoea, >1 month
- Isosporiasis, >1 month
- Atypical disseminated leishmaniasis
- Reactivation of American trypanosomiasis (meningoencephalitis or myocarditis)

Fungal infections

- Pneumocystis carinii pneumonia
- Candidiasis, oesophageal
- Candidiasis, bronchial/tracheal/lungs
- Cryptococcosis, extra-pulmonary
- Histoplasmosis, disseminated/extra pulmonary
- Coccidioidomycosis, disseminated/extra pulmonary
- Penicilliosis, disseminated

The guidelines recommend that any person presenting with a condition with an undiagnosed HIV prevalence of >0.1% should be strongly recommended HIV testing.

Conditions associated with an undiagnosed HIV prevalence of >0.1 % are:

- Sexually transmitted infections
- Malignant lymphoma
- Anal cancer/dysplasia
- Cervical dysplasia
- Herpes zoster
- Hepatitis B or C (acute or chronic)
- Mononucleosis-like illness
- Unexplained leukocytopenia/thrombocytopenia lasting >4 weeks
- Seborrheic dermatitis/exanthema
- Invasive pneumococcal disease
- Unexplained fever
- Candidaemia
- Visceral leishmaniasis
- Pregnancy (implications for the unborn child)

For indicator conditions where expert opinion considers HIV prevalence likely to be >0.1%, but awaiting further evidence, it is recommended to offer testing.

The indicator conditions are:

- Primary lung cancer
- Lymphocytic meningitis
- Oral hairy leukoplakia
- Severe or atypical psoriasis
- Guillain–Barré syndrome
- Mononeuritis

- Subcortical dementia
- Multiple sclerosis-like disease
- Peripheral neuropathy
- Unexplained weight loss
- Unexplained lymphadenopathy
- Unexplained oral candidiasis
- Unexplained chronic diarrhoea
- Unexplained chronic renal impairment
- Hepatitis A
- Community-acquired pneumonia
- Candidiasis

Further reading

1. WHO/Europe. Scaling up HIV testing and counselling in the WHO European Region, 2010.
2. ECDC. HIV testing: increasing uptake and effectiveness in the European Union ECDC, 2010.
3. HIV in Europe. HIV Indicator Conditions: Guidance for implementing HIV testing in adults in Health Care Settings 2012.
4. Ellis S et al. HIV diagnoses and missed opportunities. Results of the British HIV Association (BHIVA) National Audit 2010. *Clinical Medicine*, 2012.
5. Thomas William S et al. Changes in HIV testing rates among patients with tuberculosis in a large multiethnic city in the UK. *International Journal of STD & AIDS*, 2011.
6. Petlo T et al. HIV-testing of men who have sex with men: variable testing rates among clinicians. *International Journal of STD & AIDS*, 2011.
7. Public Health England. National Antenatal Infections Screening Monitoring (NAISM), 2010.

Section 9 – Monitoring and evaluation

This section includes an overview of the content contained on slides 48 to 52.

Monitoring and evaluation (M&E) is an essential component of an HIV testing programme and ensures that the programme provides high quality HIV testing. FACTS criteria can be used when designing M&E:

- **F**easibility
- **A**ceptability
- **E**ffectiveness and **C**ost-effectiveness
- **T**arget populations are reached
- **S**ustainability

Several indicators can be applied in order to assess local HIV testing initiatives using FACTS criteria. Examples of indicators to measure **F**easibility can be number and percentage of persons offered HIV testing or percentage of newly diagnosed individuals who are successfully transferred to care within three months (see slide 50-51 for further examples of indicators).

Section 10 – Conclusions

This section includes an overview of the content contained on slides 53 to 55.

Conclusions

In Europe more than 100,000 people are diagnosed with HIV every year and this number does not have a descending trend in many countries of the region. Past efforts have not been able to prevent new HIV infections. Scaling up of HIV testing is therefore essential and new and dedicated initiatives are needed to turn the epidemic around.

A successful scaling up of HIV testing will decrease morbidity and mortality among patients, reduce the number of new HIV infections, decrease the ongoing transmission of HIV and consequently lessen the economic burden in health systems.

To be most effective these efforts should be targeting barriers to HIV testing at three different levels; patient level, healthcare provider and institutional/policy level.

The specific kind of barriers varies from country to country and need to be targeted after careful analysis in individual countries.

- Populations at high risk of HIV should be targeted with focused interventions and healthcare systems, and where HIV testing is not part of the standard medical care, indicator condition-guided HIV testing should be implemented
- National HIV testing guidelines should be implemented and take an ethical approach based on human rights principles
- Training and awareness raising is crucial in order to normalise HIV testing in the healthcare system, e.g. by implementing indicator condition-guided HIV testing strategies
- Laws that are jeopardising HIV prevention effort should be abolished and HIV testing strategies should take an ethical approach based on human rights
- Monitoring and evaluation systems should be implemented and help ensure that the programme provides high quality HIV testing

Section 11 – Template slides

This section includes an overview of the template slides that are included in the slide deck. These can be edited by you with some or all of the information suggested on the slides.

Slide 10: Know your HIV epidemic

This is a template slide for you to insert data on national statistics such as HIV incidence and HIV prevalence.

Slide 16: Late diagnosis of HIV infection

This is a template slide for you to insert data on late diagnosis and advanced HIV infection.

Slide 38: Barriers to HIV testing

This is a template slide for you to insert information about local barriers to testing.

Slide 52: Monitoring and evaluation

This is a template slide for you to insert information about how monitoring and evaluation systems have been implemented locally.

Slide 56: Examples of efforts to scaling up HIV testing

This is a template slide for you to populate with examples of successful testing initiatives that you or other HIV organisations have been involved in. See also a collection of materials at the testing week website at www.hivtestingweek.eu.