Modern HIV Prevention Strategies

What are the implications for German populations? Community perspectives

"110 Years of the German STI Society"
German STI Society Conference, Berlin, 13-16 June 2012

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1. Background/Fragestellung

As was made clear at the IAS Conference in Rome in July 2011, global HIV prevention has entered a new era. Results of several large-scale trials looking at pre-exposure prophylaxis, microbicides and treatment as prevention could dramatically expand the range of prevention options in the near future, while recent studies in vaccinology and a cure indicated that much more is possible with sustained investment. These add to the list of proven, yet underutilised, existing strategies including behaviour change, condom use and needle exchange.

Why do we need new HIV prevention options? And who needs them?

HIV infection remains a major public health concern in Europe, with evidence of increasing transmission in several European countries. Since 2001, there has been a 250% increase in the number of people living with HIV in eastern Europe and central Asia. In the western part of Europe, the epidemic remains concentrated among men who have sex with men (accounting for 39% of newly diagnosed cases in 2010) and migrants from countries with generalized epidemics (accounting for at least one third of heterosexually acquired infections). The integration of new preventive interventions could potentially avert substantial numbers of HIV infections in Europe, including in Germany, where 2,800 people were diagnosed with HIV in 2011.

MSM

Unprotected sex between men continues to dominate patterns of HIV transmission in Western and Central Europe. Data from 23 European countries show that the annual number of HIV diagnoses among men who have sex with men rose by 86% between 2000 and 2006. In 2007, there were 3160 new HIV diagnoses in the United Kingdom among men who have sex with men—the most ever reported in the country up to that point. (Source UNAIDS 2012). In Germany, men who have sex with men account for almost 75% of new HIV infections among men.

WOMEN

In 2009, women accounted for about 29% of all people living with HIV in Western and Central Europe.

The number of people living with HIV in Eastern Europe and Central Asia almost tripled between 2000 and 2009. In 2010 there were an estimated 1.5 million people living with HIV in the region. The number of new HIV infections acquired through heterosexual contact has increased by 150% in the last decade. HIV represents a growing threat for women in the region. Women make up a rising proportion of people living with HIV—up to 50% in some countries in Eastern Europe and Central Asia. In Russia, for example, the number of young women with HIV aged 15-24 is two times higher than among men of the same age.

SEX WORKERS

Commercial sex has become an increasingly important factor in several countries' epidemics. Limited data suggest that HIV prevalence among sex workers remains relatively low. However, their sexually transmitted infection rates, which generally serve as a precursor for the epidemic's spread, are high.

Eastern Europe and Central Asia have seen a dramatic increase in the number of sex workers due to changes in the socioeconomic and political situation in the region that limit women's economic opportunities and increase female poverty. The Russian Federation, Ukraine, Romania and Moldova reportedly have the largest number of women engaged in sex work.

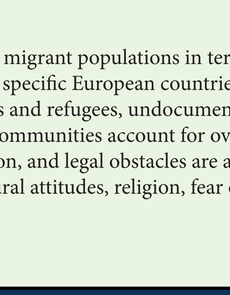
MIGRANTS

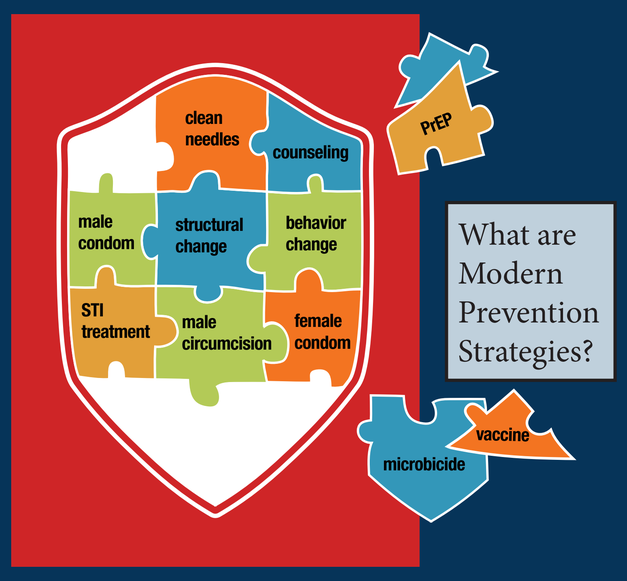
The most relevant migrant populations in terms of HIV originate from Sub-Saharan Africa, Eastern Europe and Asia and, in some specific European countries, from Latin America and the Caribbean. Important subpopulations are asylum seekers and refugees, undocumented migrants, sex workers and men who have sex with men. In the UK, migrant African communities account for over 35% of people living with HIV. Language barriers, marginalisation and social exclusion, and legal obstacles are among the most common factors contributing to the HIV vulnerability of migrants. Cultural attitudes, religion, fear of discrimination and low HIV knowledge in migrant communities also play a role.

2. Methods/Methoden

Treatment as prevention (treating the positive partner)

In 2008, EKAF, the Swiss National AIDS Commission, concluded that "HIV-infected persons on effective antiretroviral (ARV) therapy (and free of other STIs) are sexually non-infectious". In May 2011, a clinical trial showed that that providing immediate ARV immediate therapy to the HIV-positive partner with a CD4 count from 350-500 significantly reduced the risk of transmitting HIV to their HIV-negative partner and provided health benefits to the HIV-positive partner.





SOURCES: WHO 2012, UNAIDS 2006, 2011, ECDC 2009, Robert Koch Institut

A Guide to the Language of ARV-based Prevention

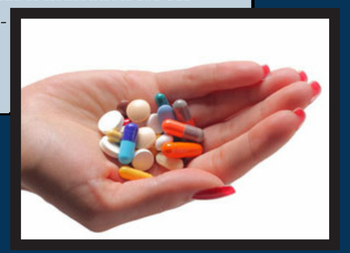
ART	Antiretroviral therapy; a combination of medications leading to viral suppression in people living with HIV
ARV	Antiretrovirals; treatment drugs that are individually or co-formulated
Long-acting methods	Strategies, such as a periodic shot of ARVs or a vaginal ring (inserted monthly that could potentially provide continuous protection against HIV
Microbicides	Substances that can block HIV in the vagina or rectum; refers to a range of products including topical PrEP, non-ARV-based compounds and/or "multipurpose" technologies
Multipurpose technologies	The emerging term for combination HIV prevention, STI prevention and/or contraceptive products
PrEP	Pre-exposure prophylaxis using ARVs
Topical PrEP	ARV-based microbicides
Treatment as prevention	Systematic use of ART to reduce sexual transmission risk in HIV-positive people; also known as TasP, T4P, TisP and TLC+ (testing and linkage to care, plus treatment)

From *AVAC Report 2011: The End?*, www.avac.org/report2011.

PrEP (using ARVs orally to protect the negative partner)

Oral PrEP is an HIV prevention strategy using ARV drugs that doesn't need to be used at the time of sex. This offers women (and men) an HIV risk reduction option that could be used without negotiating with their partners. The data to date come from trials in which participants were counselled to take either one tablet of oral TDF/FTC (brand name Truvada) or oral TDF (brand name Viread) every day.

Studies have shown that daily oral PrEP using TDF/FTC or TDF reduces HIV risk in women and men who take it correctly and consistently. Daily oral PrEP using oral TDF/FTC for women and men is now being considered by the US Food and Drug Administration for a formal label indication for HIV being implemented in demonstration projects in several countries around the world, including in France.

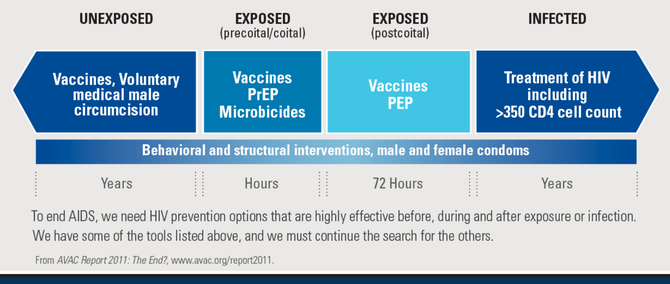


Microbicides (using ARVs topically to protect the negative partner)

The term microbicide refers to various strategies being tested that may reduce the risk of HIV transmission dur-ing sex. These include gels and vaginal rings that couldbe used vaginally or rectally. The large majority of microbicide candidates in testing today are formulated withARV drugs.

The most advanced candidate—and the only candidate to show efficacy to date—is 1% tenofovir gel, a topical formulation of the ARV drug, tenofovir. A confirmatory trial of enofovir gel has begun in South Africa.

Many Opportunities for HIV Prevention



To end AIDS, we need HIV prevention options that are highly effective before, during and after exposure or infection. We have some of the tools listed above, and we must continue the search for the others.

From *AVAC Report 2011: The End?*, www.avac.org/report2011.

What are the implications of modern HIV prevention strategies (MPS) for the most affected and at risk populations in Germany and the European region, including MSM, sero-discordant couples, female sex workers, heterosexual women and the African diaspora?

Most at risk group	Current HIV prevention options	Options pending	Future options
Men who have sex with men (including male sex workers) Transgender women	Male condoms Voluntary medical circumcision Safer sex techniques Partner reduction and sero-selection	Oral PrEP	Vaccines Rectal microbicides Injectable PrEP
Migrants from regions with high HIV prevalence, including the African diaspora	Male and female condoms Voluntary medical circumcision Safer sex techniques Partner reduction and sero-selection	Vaginal microbicides based on tenofovir Oral PrEP	Vaccines Rectal microbicides Vaginal ring Injectable PrEP
Female sex workers Heterosexual women	Female condoms Ask male partner to use male condom Safer sex techniques Partner reduction and sero-selection	Vaginal microbicides based on tenofovir Oral PrEP	Vaccines Vaginal ring Rectal microbicides Injectable PrEP
People who inject drugs	Male and female condoms Clean injecting equipment	Vaginal microbicides based on tenofovir Oral PrEP	Vaccines Injectable PrEP

3. Results/Ergebnisse

Communities and policymakers in Germany remain largely unaware of recent developments in the field of HIV prevention. The process of interpreting and translating what this means for HIV policy and programming in Germany has only just begun. An expanded, structured dialogue that links civil society, researchers and policy makers, and that facilitates the implementation of research findings while simultaneously reflecting and responding to community priorities, is urgently needed.

Multiple stakeholders in Germany (community-based organisations, researchers, policy makers, public health professionals, people living with HIV, vulnerable populations) can raise awareness to ensure appropriate use of MPS; build capacity to ensure that research findings are adapted to local settings and that MPS are integrated into existing HIV prevention efforts; address policy and regulatory challenges to facilitate the availability and implementation of MPS both domestically and globally.

4. Conclusions/Schlussfolgerungen

There is an urgent and ongoing need to create broader opportunities for stakeholders to:
1) Exchange strategies to overcome the challenges of engaging stakeholders on MPS where there are no clinical trials;
2) Identify common elements of effective engagement strategies that can be adapted for diverse contexts (i.e. generalised vs. concentrated epidemics);
3) Identify directions for future research, community engagement and policy development. This will ensure the potential of new options is fully realised, including in Germany.

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About GSSG
The German Sexuality and Health Foundation (GSSG) was founded in 2007 and develops and promotes projects particularly in the field of "sexual health". GSSG is host to the national Network on Women and AIDS and the German Lifeboat Project. In addition to its national projects GSSG lobbies at events concerning sexual health and focuses on exchange with national and international experts. For more information, please consult the GSSG website at www.stiftung-gssg.org

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About AVAC
Founded in 1995, AVAC is a non-profit organization that uses education, policy analysis, advocacy and a network of global collaborations to accelerate the ethical development and global delivery of AIDS vaccines, male circumcision, microbicides, PrEP and other emerging HIV prevention options as part of a comprehensive response to the pandemic.

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