

Conclusion Both documents are concrete steps towards promoting sexual health as a public health concept at international and national levels.

S03.2 SEXUAL HEALTH PROMOTION INTERVENTIONS: RESULTS OF A SYSTEMATIC REVIEW

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Background Population-level rates of sexual health indicators such as STI rates have stimulated interest in a public health approach to improving sexual health in the United States. We used several existing definitions (World Health Organization, U.S Surgeon-General's office, CDC/HRSA Advisory Committee) to derive sexual health principles: recognition of sexuality as intrinsic to individual health and relationships should have positive outcomes for all partners involved.

Methods Studies for a systematic review of intervention literature were drawn from Medline and PsycInfo databases (English language, adult populations, published between 1996–2011, country with developed public health infrastructure). They addressed outcomes in one or more domains: knowledge, attitudes, communication, healthcare use, sexual behaviours or adverse events. Data were summarised in a narrative review organised by population (adults, parents, sexual minorities, vulnerable populations) across domains. Selected data from knowledge, attitudes and behaviours were summarised in meta-analyses.

Results From 9064 studies, 58 were retained in the narrative review. Studies employed qualitative, experimental, pre-post and matched comparison group designs; the number of studies published was correlated with publication year ($r = 0.77$, $p < 0.001$). Interventions were predominantly individual and small-group in-person designs that addressed sexual behaviours (42 studies, 72%) and attitudes/norms (32, 55%). Studies with parents covered communication. All but one study reported at least one positive finding, but many (29 studies, 50%) also reported null findings. The most consistent positive effects on behaviours and adverse events were found for sexual minorities and vulnerable populations; interventions with parents uniformly increased attitudes and communication skills.

Conclusions Sexual health-framed interventions generate positive effects across adult populations, as well as mental and behavioural domains and adverse outcomes. Interventions may be especially effective among vulnerable populations and in improving parent communication. Where scalable, incorporating aspects of existing sexual health definitions into public health may contribute to improving sexual health.

S03.3 ADDRESSING GENDER-BASED VIOLENCE TO REDUCE RISK OF STI AND HIV

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Background Gender-based violence, and gender inequality more broadly, has been found to be associated with increased risk of sexually transmitted infections (STI) including HIV among women and girls as well as among key vulnerable groups such as sex workers. This paper presents the evidence of the increased risk of STI and HIV associated with gender-based violence; and looks at potential pathways by which gender-based violence and STI and HIV are linked.

Methods A systematic review and meta-analysis of studies that measure the association between intimate partner violence and STI and HIV was conducted by the London School of Hygiene and Trop-

ical Medicine and WHO as part of work feeding into the Global Burden of Disease Study estimates on violence against women and its health impacts. Another systematic review of studies that measure association between violence against sex workers and STI and HIV was also conducted by the University of British Columbia, Vancouver and WHO. Other studies and literature were reviewed to identify potential pathways to explain the links between gender-based violence and HIV.

Results The results of the systematic review show that best estimate of association between physical and/or sexual intimate partner violence and HIV was an odds ratio (OR) of 1.52 (95% CI = 1.03 to 2.23) for HIV, from studies from generalized and concentrated HIV epidemics and slightly higher for syphilis, chlamydia or gonorrhoea. These studies, however, are mainly cross sectional population-based surveys among women in the general population. The systematic review of violence against sex workers shows that sex workers from India and US who experience sexual violence have between 2 and 3-fold increased risk of HIV sero-positivity. Sex workers who experience any form of physical or sexual violence by any perpetrator in studies from India (Karnataka), Thailand, USA (San Francisco) also showed increased risk of STI sero-positivity. Studies suggest 4 potential pathways linking gender-based violence and STI/HIV. First, sexual violence can be directly associated with increased STI and HIV transmission. There are also several indirect mechanisms; these include a history of violence in childhood or adolescence being linked to increased sexual risk taking later; and difficulties in negotiation of condom use with the partner. Also, men who perpetrate violence are also more likely to engage in sexual risk taking. Third, fear of violence can prevent women and sex workers from seeking or accessing HIV information and services. Lastly, violence can be an outcome of diagnosis and disclosure of HIV status.

Conclusion Interventions to address the HIV epidemic among women and among sex workers need to address violence as a risk factor. In each setting, interventions need to be based on an understanding of the potential pathways that link violence against women and sex workers to STI and HIV infection. HIV prevention, treatment, and care programmes for women and for sex workers can integrate violence prevention into their risk-reduction counselling and communication, work with men and boys to promote gender equality and reduce violence perpetration, empower women, girls and sex workers, address harmful gender norms that perpetuate the acceptability of violence, and address the harmful use of alcohol. Laws and policies that criminalize sex workers and that perpetuate gender-based discrimination against women and girls also need to be addressed.

S03.4 SEXUAL HEALTH IN THE EUROPEAN UNION: AN INVENTORY OF DATA, PROGRAMMES, INITIATIVES, AND POLICIES

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Background Sexually transmitted infections and HIV represent a major public health challenge in European Union/European Economic Area. In 2011, 346911 chlamydia, 39179 gonorrhoea, 28038 HIV and 19798 syphilis cases were reported to the European Centre for Disease Prevention and Control (ECDC). Improving prevention efforts is therefore a priority, especially among populations groups that are most vulnerable to infection, including young people, MSM, migrants and people living with HIV/AIDS.

Methods A mapping exercise of European sexual health data, programmes, initiatives and policies was conducted aiming to increase the understanding of how HIV/STI can be prevented in the general population and among vulnerable population groups.

Results Synergies and gaps in the availability of data and in policies and programming were identified across EU/EEA. Eleven countries ever adopted a national sexual health strategy and 24 implemented a national HIV/STI prevention strategy. Specific HIV/STI prevention strategies targeting vulnerable groups were identified for: young people (24 countries), MSM (22 countries), sex workers (19 countries), migrants (20 countries) and injecting drug users (24 countries). National surveys on sexual knowledge, attitude and practise were conducted in general population by 19 countries. Eighteen countries collect data on sexual health in MSM, 9 in PLHIV and 6 in migrants. Sexuality education is mandatory in 20 countries. In the last 5 years, 24 Member States conducted HIV/AIDS awareness campaigns.

Conclusions The following mechanisms are considered to support Member States and to promote a comprehensive approach for HIV/STI prevention in the context of sexual health: endorse synergy between European bodies and NGOs in regards to data collection, reporting and publication; development of a standardised set of indicators for collecting comparable data; development of an evidence-based framework to allow countries to evaluate their sexual health interventions; facilitate communication among (inter)national experts through a dedicated sexual health platform.

S03.5 ADVANCING SEXUAL HEALTH IN THE US: FROM THEORY TO ACTION

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Background The United States faces a variety of public health issues related to sexual behaviour including HIV, STD, unintended pregnancy, and sexual violence. A 2010 CDC consultation on *A Public Health Approach for Advancing Sexual Health in the United States* (<http://www.cdc.gov/sexualhealth/docs/SexualHealthReport-2011-508.pdf>) provided recommendations on how CDC could enhance prevention programme impact by comprehensively addressing sexual health.

Methods Since the consultation, CDC has worked across its divisions and with external partners to translate the theoretical concept of sexual health into public health action through national leadership, partnership development, and scientific and programme efforts.

Results Initially, we developed a sexual health framework emphasising the importance of using sexual health promotion to complement and enhance core disease control and prevention activities based on five key principles: acknowledgment of the impact of sexual health on overall health, consideration of underlying social issues, an emphasis on wellness, a focus on relationships, and integrated prevention approaches. Subsequently, we reviewed U.S. national data systems to identify existing measures of key domains of sexual health and conducted health communications research assessing optimal frameworks and messages for communicating with audiences with varied perspectives. Partnership development was accelerated by forming a National Sexual Health Coalition, with a spectrum of non-governmental partners addressing sexual health among the general population, adolescents, and MSM. Public health implementation of sexual health promotion has focused on supporting development of sexual health plans by U.S. states and sexual health training for providers in public health and primary care settings.

Conclusions Implementing actions to address sexual health in a society with diverse values is a challenging and evolving process, but has great potential to improve prevention efforts by engaging a spectrum of partners, facilitating societal dialogue around sexuality and sexual behaviour, reducing stigma and fear, and enhancing efficiency and effectiveness of prevention messages and services.

S.04 - Scaling up of HIV treatment programmes among the most at-risk populations in low- and middle-income countries

S04.1 SCALING UP OF HIV TREATMENT PROGRAMMES AMONG THE MOST AT-RISK POPULATIONS IN LOW- AND MIDDLE-INCOME COUNTRIES - INTRODUCTION

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Although access to antiretroviral therapy (ART) for HIV infection in low- and middle-income countries has tremendously improved over the last decade, it remains far from optimal in most settings when it comes to the treatment of marginalised populations, such as sex workers, injection drug users and men who have sex with men. Small-scale demonstration projects indicate that ART can be successfully implemented among sex workers, with satisfactory immunological and virological responses, good treatment compliance levels, and maintenance or even improvement of safe sex behaviour. Some of the studies carried out so far underline the importance of strongly linking prevention with care through the integration of HIV/STI care services and community-based prevention packages. Scaling-up treatment programmes for marginalised, hard-to-reach populations, will undoubtedly be challenging. Nevertheless, in addition to the health equity issues related to access to ART for such populations, the application of targeted “test and treat” strategies could substantially impact HIV prevention at the general population level, given recent trial data showing that the implementation of this strategy among sero-discordant couples led to a 96% reduction in HIV transmission. Such a strategy should however be carefully evaluated in the target population before implementation and scale-up, and would require specific adherence support and community involvement.

It is in this context that this symposium will present practical experiences in implementing ART programmes among female sex workers in the context of generalised, concentrated and mixed epidemics. Modelling studies of the preventive impact of such programmes across different epidemic contexts, and with different criteria for ART initiation (including “test and treat”), will also be presented. A similar study about injection drug users in the context of a concentrated epidemic will complete the presentations in this symposium that should stimulate a fruitful discussion period between the participants and the speakers.

S04.2 MODELLING THE IMPACT OF EARLY ANTI-RETROVIRAL TREATMENT AMONGST PEOPLE WHO INJECT DRUGS IN A HIGH PREVALENCE SETTING

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Background HIV transmission in many settings is concentrated amongst people who inject drugs (PWID), and can reach high HIV prevalence. Early anti-retroviral treatment (ART) for PWID could be important for reducing HIV transmission in these settings. This modelling analysis projects the impact of such a strategy in a high HIV prevalence (30%) setting, and explores how behavioural and epidemiological factors affect the projections.

Methods A deterministic model of HIV transmission amongst PWID is calibrated to HIV prevalence data from Manipur, India.