THE IMPACT OF COMPREHENSIVE SEXUALITY EDUCATION ON SEXUALLY TRANSMITTED INFECTIONS, INCLUDING HIV, AMONG YOUNG PEOPLE

WHAT IS 'COMPREHENSIVE SEXUALITY EDUCATION'?

The international community has moved towards a consensual definition of comprehensive sexuality education (CSE), steering away from a primary focus on disease prevention to a more positive and holistic focus on well-being.[1] **Key stakeholders** including the German Federal Centre for Health Education (BZgA),[2] WHO,[3] UNFPA,[4] UNESCO[5] and the International Planned Parenthood Federation (IPPF)[6] **agree that CSE**

- is an **evidence- and curriculum-based** process of teaching about the cognitive, emotional, social, interactive and physical aspects of sexuality.[7]
- starts from birth and progresses in a way that is **developmentally appropriate** through childhood and adolescence into adulthood.
- plays a key role in ensuring young people's **safe emotional and physical development.** It gradually equips and empowers children and young people with **information, life skills and positive values** to understand and enjoy their sexuality, have safer, healthier and more fulfilling relationships and take responsibility for their own and other people's sexual health and well-being.[8]
- strengthens children's and young people's ability to exercise their **sexual and reproductive rights** to make conscious, satisfying and healthy choices regarding relationships, sexuality and their physical and emotional health.
- is based on a **respect for human rights, gender equality and diversity** that underpins individual and community well-being.
- helps young people to **reflect on, understand and challenge harmful social and gender-based norms** and the impact these have on relationships with peers, parents, teachers, other adults and their communities.
- covers a **comprehensive range of topics** beyond **biological aspects of reproduction and sexual behaviour**, including (but not limited to) sexuality, gender, different forms of sexual expression and orientation; gender-based violence (GBV); feelings, intimacy and pleasure; contraception, pregnancy and childbirth; and sexually transmitted infections (STIs), including human immunodeficiency virus (HIV).

CSE is an integral part of the human right to health; in particular, the right to access appropriate health-related information, and is supported by a number of international agreements, including the *1994 International Conference on Population and Development (ICPD) Programme of Action* and related resolutions. Additionally, the UN Committee on Economic, Social and Cultural Rights views a failure to ensure that up-to-date, accurate information on sexual and reproductive health (SRH) is publicly available and accessible to all, and incorporated into educational curricula, as a violation of a State's obligations.[9]

In countries where CSE is integrated into schools, evidence shows that young people wait until a later age to have their first sexual experiences; have lower teenage pregnancy and abortion rates; have higher rates of contraceptive use; and report less discrimination based on sexual orientation and gender differences.[10,11,12] This is in contrast to 'abstinence-only' approaches, which have been found to be ineffective, stigmatizing and unethical.[13,14,15]

UNFPA

World Health Organization
REGIONAL OFFICE FOR Europe

BZgA Federal Centre for Health Education

WHO Collaborating Centre for Sexual and Reproductive Health

SUMMARY OF KEY EVIDENCE: CSE AND STIS, INCLUDING HIV, AMONG YOUNG PEOPLE

Despite challenges in attributing the impact of CSE to biological outcomes, there is evidence to show that by improving knowledge and developing behaviours necessary to prevent STIs, including HIV, CSE is effective in reducing STI risks, including HIV-related risk.

- **CSE reduces the risk of STIs, including HIV, by increasing knowledge and developing safer sexual behaviours**.[16] Students who received school-based CSE had significantly greater knowledge of HIV, improved self-efficacy related to refusing sex, increased condom use and fewer sexual partners.[17]

- **CSE increases the effective and consistent use of condoms, thereby significantly reducing risks of STIs, including HIV**. A global review of 64 studies, including one conducted in the Russian Federation, demonstrated the positive impact of school-based CSE on effective use of condoms during last sex; increasing condom use; reducing high-risk sexual behaviour, and less frequent sex without a condom in the past three months.[18] There was a significant increase in reported condom use at last sex in a review of 53 studies involving over 105,000 young people receiving CSE.[19] In countries with well-established CSE programmes, young people report high rates of condom use. For example, in 2017, 70 % of young people aged 12 to 25 in the Netherlands reported using a condom when they had sex for the first time.[20]

- **CSE that addresses both pregnancy prevention and STIs, including HIV, is more effective than single-focus programmes in increasing effective contraceptive and condom use and in decreasing reports of sex without a condom.**[21]

- **CSE that adequately addresses gender and is linked to youth-friendly sexual and reproductive health services is more effective at reducing STIs, including HIV.** 'Gender-transformative' programmes that support learners to challenge harmful social and cultural norms around gender, and to develop gender-equitable attitudes, are substantially more effective than 'gender-blind' programmes in achieving health outcomes such as reducing rates of STIs.[22] **Rigorous evidence also demonstrates that CSE is more effective when it is linked to youth-friendly sexual and reproductive health services,**[23] **including STI and HIV counselling, testing and treatment, and provision of condoms**.

- **CSE is both cost-efficient and cost-saving in terms of its impact on preventing adverse health outcomes**. Between 2001 and 2009, Estonia's mandatory CSE programme prevented an estimated 7,240 incidences of STIs, 1,970 new HIV infections and 4,280 unintended pregnancies. A cost-benefit analysis, based on HIV infections prevented and HIV treatment costs alone, concluded that CSE would only have to be responsible for 4 % of the HIV infections averted to be considered cost-effective and cost-saving.[24]

- **In contrast, abstinence-based approaches have consistently proven ineffective and potentially harmful.** A 2017 review of sexuality education policies and programmes in the United States concluded that abstinence-until-marriage-only programmes were 'ineffective, stigmatizing and unethical'. Such programmes were found to withhold pertinent sexual health knowledge; provide medically inaccurate information; promote negative gender stereotypes; stigmatize young people who are already sexually active, pregnant and/or parenting; and marginalize lesbian, gay, bisexual, transgender, intersex and queer/questioning (LGBTIQ) adolescents.[25] Further studies demonstrate that abstinence-only approaches are not effective in delaying sexual initiation, or in reducing the frequency of sex or the number of sexual partners.[26,27,28] They are also more likely to contain inaccurate information about key topics such as homosexuality, masturbation, abortion, gender roles, condoms and HIV.[29]

KEY FACTS:

STIS, INCLUDING HIV, AMONG YOUNG PEOPLE

- **Globally, young people continue to have high rates of STIs**, although data is limited and inconsistent between and within regions and countries.[30] Across Europe and Central Asia, incidence of syphilis and gonorrhoea among 15 to 19 year olds is declining, but remains very high in countries including Belarus, Kazakhstan, the Republic of Moldova and the Russian Federation.[31] Chlamydia infections are also increasing across Europe and Central Asia.[32]

- **Worldwide, 1.8 million adolescents aged 10 to 19 were living with HIV in 2017[33] and young people aged 15 to 24 account for 33 % of all new HIV infections** among adults (aged 15 and over).[34]

- **Young women continue to be disproportionately affected, accounting for 19 % of all new HIV infections globally among adults** (aged 15 and older). In Sub-Saharan Africa, 1 in 4 new HIV infections in 2017 were among young women aged 15 to 24, despite the fact that they represent just 10 % of the population.[35]

- **In Eastern Europe and Central Asia, the HIV epidemic has grown by 30 % since 2010, making it one of the world's fastest-growing HIV epidemics.[36]** In addition to sexual transmission, this is fuelled by injecting drug use. **In 2017, key populations[i] and their sexual partners accounted for 95 % of new infections in this region.[37]**

- **Between 2001 and 2011, HIV prevalence more than doubled among young people aged 15 to 24 across Eastern Europe and Central Asia.[38]** One third of new HIV infections in the region occur in the 15 to 24 age group,[39] and over 80 % of people living with HIV in the region are below 30 years of age.[40]

- **HIV also disproportionately affects young men who have sex with men; young people who inject drugs; young people who are transgender; young people who sell sex; and those who are already marginalized**, for example, those out of school and street children.

i UNAIDS considers gay men and other men who have sex with men; sex workers; transgender people; people who inject drugs; and prisoners and other incarcerated people as the five main key population groups that are particularly vulnerable to HIV and frequently lack adequate access to services.

Young people often start having sex without the knowledge, skills or access to youth-friendly services they need. This, together with issues such as restrictive laws and policies, harmful cultural norms, gender inequity, gender-based violence (GBV), early marriage and stigma contributes to the fact that globally, young people experience high rates of STIs, including HIV, which can have lasting effects on their lives and their sexual and reproductive health. According to the International Planned Parenthood Federation, at least 111 million new cases of curable STIs occur each year among young people aged 10 to 24.[41]

STIS, INCLUDING HIV, AMONG YOUNG PEOPLE —CAUSES AND CONSEQUENCES

Adolescence is a period of ongoing physical, emotional and social changes, and the time when many young people start to explore their sexuality, develop intimate relationships with others and initiate sexual activity.[42] It can also be a time of risk-taking and peer pressure. In many cases young people reach this stage in their development without the knowledge, skills and access to services they need in order to protect themselves and their partners from STIs, including HIV.

Young people often lack knowledge on how to prevent STIs, including HIV. A global survey by UNAIDS across 37 countries showed that just 36 % of young men and 30 % of young women aged 15 to 24 had comprehensive and correct knowledge of how to prevent HIV.[43] Knowledge of specific risk factors (e. g. transmission through sexual networks or the risks associated with intergenerational sex and anal sex); of newer biomedical prevention

methods (e.g. PrEP); and of links between HIV and GBV is likely to be even lower.[44] **In many settings school-based CSE is not available, and even where it is many young people—especially those who experience child, early and early forced marriage (CEFM)—do not attend school.**

At a political level, adolescent sexual and reproductive health is often low priority, and there are often restrictive laws and policies in place, for example age of consent laws. These reinforce social and cultural norms that may create an inhibitive environment for discussion, and many societies disapprove of adolescent sexual activity, often stigmatizing the sexual health concerns of young people, in particular around STIs, including HIV.[45]

Social and cultural norms have a significant impact on girls' life choices and experiences, and consequently on vulnerability to STIs, including HIV. In some countries intergenerational sex and CEFM leave girls disempowered to negotiate safe sex, and are key drivers of the HIV epidemic. **In some settings, up to 45% of adolescent girls report that their first sexual experience was forced,[46] with condoms rarely used during forced sex**. In Europe and Central Asia, one in every four women is subjected to intimate partner violence (IPV), including both physical and/or sexual violence, during her lifetime.[47] **There is a strong correlation between GBV and HIV**.[48] Those who experience GBV are at increased risk of HIV, while those who disclose their HIV status may experience GBV as a consequence. **HIV transmission is also fuelled by injecting drug use, with many people beginning to inject during adolescence**.[49]

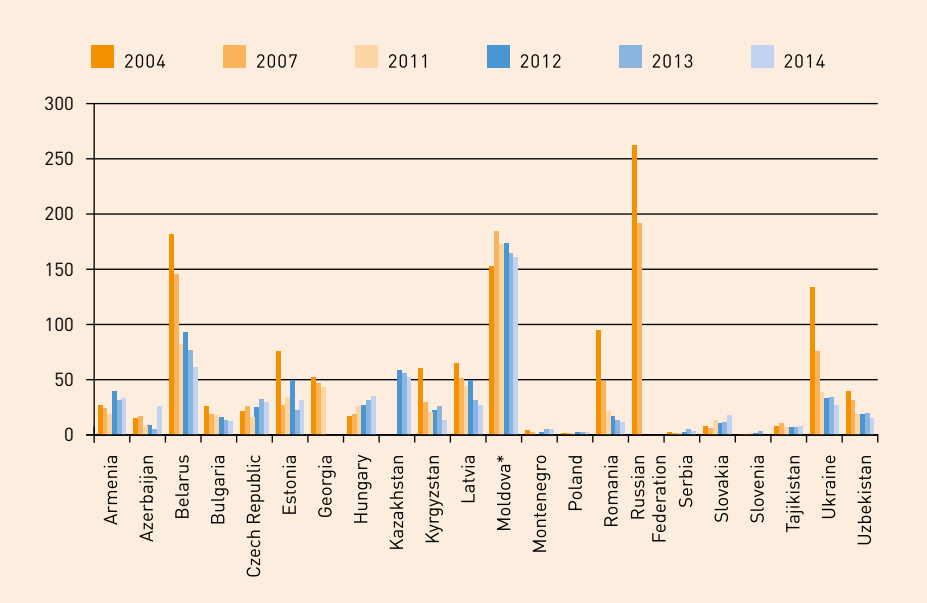


Figure 1: Total incidence of syphilis and gonorrhoea among 15 to 19 year olds (new cases per 100,000 average relevant population)

Source: TransMonEE 2016 Database, UNICEF Regional Office for CEE/CIS (released in July 2016)
*Data since 2001 do not include Transnistria

There is often an absence of youth-friendly integrated services where information and condoms are readily available. Where services do exist, other barriers may prevent young people from accessing them. These include the inability to pay; distance to services; fear of people finding out and other confidentiality issues that may result in violence; embarrassment; lack of knowledge; misinformation and myths; and stigma and shame.[50] **Health-care providers' attitudes towards young people present an important barrier to healthcare across many settings**.[51]

Untreated STIs increase young people's risk of contracting HIV and young women's risk of experiencing pelvic inflammatory disease (PID), a leading cause of preventable infertility. Children and young people are particularly vulnerable to HIV at two stages of their lives: very early in life when HIV can be transmitted from mother-to-child (also called 'vertical transmission')[52] and during adolescence when sexual activity brings new vulnerabilities to STIs, including HIV. **A combination of social and biological factors—including gender inequity, early marriage, violence and physiology—make young women twice as likely to acquire HIV as young men**.[53]

Young people who face some of the highest risks of HIV include those selling sex, young men who have sex with men, young people who are transgender and young people who use intravenous drugs. Studies indicate that HIV disproportionately affects individuals from these 'key populations': female sex workers are up to 13 times more likely to have HIV than other adult women; transgender women are up to 13 times more likely to have HIV than other adults aged 15 to 49; men who have sex with men are up to 28 times more likely to have HIV than heterosexual men; and risks of HIV infection can be up to 22 times higher among young people who inject drugs.[54]

Stigma and discrimination towards people from key populations, as well as migrants and prisoners, remains very high in many countries, particularly across Eastern Europe and Central Asia and including within health-care settings. This presents a major threat to an effective HIV response, discouraging people from accessing HIV testing and treatment.

Unlike many other regions in the world where HIV prevalence has fallen, Eastern Europe and Central Asia has one of the fastest-growing HIV epidemics. This region saw a 29 % increase in new HIV infections between 2010 and 2017, with a total of 1.4 million people now living with HIV.[55] HIV transmission among people who inject drugs and their sexual partners accounts for the majority of HIV infections and is heavily influenced by the Russian Federation, which is home to 70 % of people living with HIV in the region.[56] HIV infections among young people have increased significantly, with one third of new HIV infections in the region now occurring in the 15 to 24 age group.[57] Unprotected sex is now the most common route of HIV infection for young people, with sharing infected needles being the second.[58]

LINKING STI AND HIV PREVENTION AND CSE

The 1994 International Conference on Population and Development (ICPD) Programme of Action articulates that programmes should address SRH and sexuality, gender relations and equality, as well as violence against adolescents. Later resolutions reinforce the call for CSE as part of 'promoting the well-being of adolescents, enhancing gender equality and equity as well as responsible sexual behaviour, to protect them from early marriage and unwanted pregnancy, sexually transmitted diseases including human immunodeficiency virus (HIV)/AIDS, and sexual abuse, incest and violence'.[59]

Sexuality education has evolved over time in line with health and educational priorities, moving from a focus on preventing adolescent pregnancy in Western Europe in the 1960s and 1970s, to prioritizing HIV prevention from the 1980s and 1990s onwards. Over time, sexuality education has evolved and expanded to include a more comprehensive range of topics, and to develop the values, attitudes and skills that are critical to support young people's empowerment and enable them to fulfil and enjoy their sexual and reproductive health and rights (SRHR), including prevention of HIV and other STIs.

Tailoring CSE to the needs of all children and young people, including those already living with HIV and those who are marginalized and most vulnerable, is critical. Most CSE takes place in schools, but **scaling-up and expanding CSE to include non-formal and community-based settings is also paramount**, in order to reach out-of-school and the most vulnerable and marginalized adolescents, especially in countries where school attendance is low, or where CSE is not provided as part of the national curriculum.[60] Many of the factors influencing adolescent SRH lie in cultural and gender norms, therefore **engaging with parents and the wider community, including religious leaders, is important to challenge harmful cultural norms**, and to build their understanding of the issues faced by young people.

CSE supports the development of health-promoting habits from an early age, as the behaviours developed during adolescence have a lifelong impact,[61] and there is strong evidence to demonstrate CSE's contribution to preventing STIs, including HIV. This is attributed to the specific knowledge CSE imparts about STI transmission and HIV prevention;[62] its ability to build self-efficacy skills in order to negotiate sexual activity and condom use;[63] and its positive impact on safer sexual behaviours,[64] including increased condom use.

CSE is an important strategy to 'fast track' the HIV response and end AIDS. In its *Global AIDS Update 2018*, UNAIDS highlighted CSE's central role in preparing young people for a safe and fulfilling life and highlighted it as 'an important component of the HIV prevention package for young people'.[65]

EVIDENCE IN PRACTICE

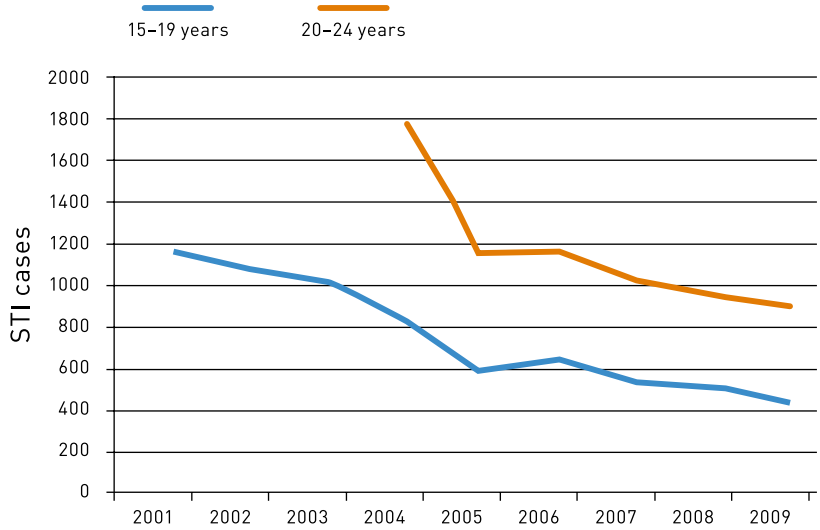
There is compelling evidence linking the introduction of CSE with a significant reduction in STIs, including HIV, in several European countries. In Finland, CSE has been linked to a reduction in STI rates,[66] while in Estonia, CSE delivered together with youth-friendly sexual health services had a demonstrated effect on reducing STI and HIV infections among adolescents.[67]

COUNTRY CASE STUDY:
CSE AND PREVENTING STIS, INCLUDING HIV, IN ESTONIA

Estonia was the first country of the former Soviet Union to introduce mandatory school-based CSE, implementing this in 1996 for 7 to 16 year olds, alongside youth-friendly sexual and reproductive health services that provide young people with free STI counselling, testing and treatment, and with counselling on safer sex and contraception. CSE was delivered primarily within the subject of Human Studies and the curriculum was updated between 2000 and 2002 to include a greater focus on HIV prevention, in response to increased HIV incidence. The curriculum was revised again in 2010 to pay more attention to the prevention of high-risk behaviours and to more clearly define the topics within health and sexuality education, with an increased number of sexual and reproductive health-related lessons.

From 2000 there was a marked improvement in youth sexual health indicators, including steep declines in STI and HIV infections and lower abortion and adolescent birth rates. This was due to sharp increases in condom and other contraceptive use among young people. The programme has been extensively evaluated, including an in-depth cost and cost-effectiveness analysis by UNESCO in 2010. This concluded that improvements in youth health outcomes from 2001 onwards are likely to be due to CSE in combination with youth-friendly sexual health service delivery.

Between 2001 and 2009, an estimated 13,490 negative health outcomes were prevented. These included 7,240 incidences of STI transmission; 1,970 new HIV infections; and 4,280 unintended pregnancies. The number of new HIV cases among 15 to 19 year olds fell dramatically, from 560 in 2001 to 25 in 2009; new cases of syphilis fell from 116 in 1998 to just two in 2009; and gonorrhoea cases from 263 to 20 in the same period.[68]



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Data source: Murd, M. and A. Trummal. 2010. [HIV and related infections in numbers in 2009]. Tallinn, National Institute for Health Development.

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The **Federal Centre for Health Education (BZgA)** has been a World Health Organization Collaborating Centre for Sexual and Reproductive Health (WHO CC) since 2003, with a focus on comprehensive sexuality education (CSE) in Europe and Central Asia. In this role, BZgA develops documents, resources and standards for different target groups and engages in research and the organization of seminars and conferences to promote knowledge transfer and learning in the field of CSE.

United Nations Population Fund (UNFPA)
Regional Office for Eastern Europe and Central Asia
Istanbul, Turkey
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UNFPA is the United Nations sexual and reproductive health agency. Its mission is to deliver a world where every pregnancy is wanted, every childbirth is safe and every young person's potential is fulfilled, and it works in more than 150 countries and territories around the world. Guided by the 1994 Programme of Action of the International Conference on Population and Development (ICPD), UNFPA's work includes partnering with governments, civil society and other agencies to implement comprehensive sexuality education, both in schools and through community-based training and outreach. UNFPA promotes policies for, and investment in, sexuality education programmes that meet internationally agreed standards.

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