

**SCHOOL-BASED SEXUALITY EDUCATION IN THE FORMER SOVIET UNION:
MOLDOVA'S APPROACH AND HOW IT COMPARES TO ESTONIA'S
INTERNATIONAL MODEL**

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ABSTRACT

Moldova and Estonia are two countries in close geographic proximity with historically similar pasts, yet drastically different youth sexual and reproductive health outcomes. While Estonia has managed to forge an internationally-praised school-based sexuality education program, effectively promote safe sexual behaviors, and reduce unwanted pregnancies, sexually transmitted infections, and HIV among young people, Moldova's attempts have been largely unsuccessful, resulting in an extremely worrisome public health situation. Although school-based sexuality education in Moldovan primary and secondary schools is considered mandatory by law, it remains primarily optional in practice and reaches only a small fraction of school-aged children. In addition, the Moldovan sexuality education program is fraught with a myriad of logistical inadequacies related to curriculum content, teacher training, and monitoring and evaluation, among others. Given the well-evidenced successes of the program in Estonia and the characteristics the country shares with Moldova, it presents an exemplary model for identifying necessary revisions to the Moldovan sexuality education program as a mechanism for ameliorating sexual and reproductive health outcomes among youth. **Public Health Relevance:** In essence, this thesis provides a timely assessment of school-based sexuality education in these two countries and offers corresponding recommendations for the reform and improvement of the program in Moldova.

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BZgA	Federal Centre for Health Education
EMIS	Education Management Information System
ESHA	Estonian Sexual Health Association
EU	European Union
HBSC	Health Behavior in School-Aged Children
HIV	Human Immunodeficiency Virus
LGBT	Lesbian, Gay, Bisexual, Transgender
LSBE	Life skills-based education
M&E	Monitoring and evaluation
MDG	Millennium Development Goal
MOE	Ministry of Education
NBS	National Bureau of Statistics
NEET	Not in employment, education, or training
NGO	Non-governmental organization
NRHS	National Reproductive Health Strategy
OECD	Organization for Economic Co-operation and Development

PLHIV	People Living with HIV
PSHE	Personal, Social, and Health Education
SDG	Sustainable Development Goal
SERAT	Sexual Education Review and Assessment Tool
STI	Sexually transmitted infection
SRH	Sexual and reproductive health
SRHR	Sexual and reproductive health and rights
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization
YFHC	Youth-Friendly Health Center
Y-PEER	Youth Peer Education Network

1.0 INTRODUCTION

Approximately 1.8 billion young people aged 10 to 24 inhabit the world today.¹ This constitutes the largest cohort of young people in human history, and their numbers continue to grow by the day. As they transition from childhood to adulthood, young people develop a greater sense of self, become more independent, experiment and take risks, learn to apply their system of values, and begin to think more critically about their future. During this period, they also experience and explore sexual feelings and desires, and many engage in their first romantic and sexual relationships. However, all too often, young people do not receive adequate support and assistance to make informed decisions about their sexuality, and they are consequently put at significant risk for coercion, abuse, sexually transmitted infections (STIs), HIV/AIDS, and unintended pregnancy. School-based sexuality education is vital to equipping young people with the knowledge, skills, attitudes, and values necessary to avoid these negative outcomes and maximize their health and wellbeing.

In some parts of the world, most notably Western Europe, school-based sexuality education has been delivered in a holistic, rights-based, scientifically accurate manner for several decades, whereas in places like the former Soviet Union, sexuality education has only more recently been introduced in schools, though in many countries these programs are not mandatory and are far from meeting comprehensive international guidelines.² One such country is the Republic of Moldova. In recent years, the Moldovan government has confirmed its commitment

to ensuring young people's right to sexuality education through the adoption of international and European conventions and the enactment of breakthrough national legislation. Nevertheless, efforts to fulfill the objectives established in these foundational documents have been widely insufficient. While some specific aspects of sexual and reproductive health (SRH) are integrated into courses like biology and civics education in Moldova, most relevant competencies are emphasized in an optional health education course that reached only 7% of young people in 2017.³ Accordingly, the incidence of STIs in the population aged 15-19 is the highest in Europe⁴, the adolescent fertility rate is more than twice the European Union (EU) average⁵, and the HIV incidence among young people aged 15-24 nearly doubled between 2000 and 2015, also among the highest in the region⁶. Moreover, gender stereotypes remain pervasive in Moldovan society, in turn fueling continued gender inequality and contributing to bullying, discrimination, abuse, and sexual violence.⁷⁻⁹

In order to improve the impact and reach of the school-based sexuality education program in Moldova, decision makers, educators, health providers, and other stakeholders should develop a better understanding of the various elements that have facilitated successful implementation of such programs by regional counterparts. As the first post-Soviet state to officially introduce sexuality education in schools, and having been lauded as an international model by organizations like the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Health Organization (WHO), Estonia serves as an excellent example.

This thesis will present an in-depth comparison of the school-based sexuality education programs currently being implemented in Moldova and Estonia. Based on this comparative assessment, recommendations for improving Moldova's school-based sexuality education program will be provided, with the objective that they will be utilized by government officials

and partnering organizations to make appropriate modifications, and thus more effectively promote the sexual and reproductive health and rights (SRHR) of Moldovan young people.

Questions to be addressed in this thesis are as follows:

1. What are the SRH outcomes among young people in Moldova and Estonia?
2. How does school-based sexuality education contribute to SRH outcomes among young people in these two countries?
3. What can Moldova learn from the example of Estonia in order to improve SRH outcomes among young people?

The second chapter of this thesis will give an overview of the social context shaping the well-being of young people in Moldova, general trends in SRH outcomes among Moldovan young people, and initiatives taken to help ameliorate these outcomes in past years. The following chapter will provide an evidence-based rationale for school-based sexuality education and outline the primary components of an effective school-based sexuality education program. The fourth chapter will present the example of Estonia, the history of its school-based sexuality education program, and trends in SRH outcomes among Estonian young people throughout the program's implementation. The fifth chapter will describe the methodology for assessing the school-based sexuality education programs in Moldova and Estonia as well as the results of this comparative assessment. The final chapter will discuss limitations of the assessment and offer recommendations drawn from the data.

2.0 BACKGROUND

2.1 MOLDOVAN YOUNG PEOPLE: THE SOCIAL CONTEXT

Similar to global demographic trends, young people comprise a sizeable portion of the Moldovan population, with about 34% of inhabitants between the ages of 15 and 35.¹⁰ In their lifetimes, many of these young Moldovans have personally witnessed and grappled with a gamut of economic and social problems that have plagued the country since it gained independence in 1991. Although Moldova has made substantial progress in socio-economic development over the past several years, which has correspondingly reduced poverty and inequality, it remains one of the poorest countries in Europe.¹¹ Likewise, young people continue to confront various interconnected challenges. According to the Youth Multidimensional Deprivation Indicator, over one-third of young Moldovans faces difficulties in multiple domains of well-being, including education, employment, and health.¹¹

To begin with, the Moldovan education system has four levels: pre-primary, primary, secondary (lower and upper), and tertiary. Education is compulsory at the pre-primary (ages 3-6), primary (grades 1-4), and lower secondary (grades 5-9) levels. Following the completion of 9th grade, students may take an entrance examination to be admitted to general upper secondary schools (vocational) or lyceums (grades 10-12). Upon obtaining their general upper secondary or

lyceum certificate, students are eligible to apply for tertiary education, which is provided by public and private universities, academies, and institutions.¹²

The education system has gone through a series of reforms in recent years, with the goal of modernizing the educational process and creating equal opportunities for all children; however, country-level indicators continue to lag behind other European nations. While pre-primary gross enrollment has steadily grown in the last decade, increasing from 70.1% in 2007 to 86.5% in 2017, primary and secondary enrollment declined.⁵ In 2007, primary gross enrollment was 94.4% and secondary gross enrollment was 88.6%, whereas in 2017 they were 91.2% and 86.8%, respectively.⁵ These data put Moldova at the very bottom in comparison with many Central and Eastern European countries.

Meanwhile, at the tertiary level, gross enrollment has been relatively stable at around 41%, with a much higher percent of females enrolled than males (46.7% vs. 37.7%).⁵ This difference can likely be explained by the commonly held expectation that men integrate earlier into the labor market in order to support the family or be financially independent. Furthermore, aside from declining enrollment rates, quality of education is also of concern. Over time, Moldovan students' scores on the Program for International Student Assessment, an international study that tests 15-year-old students' abilities and knowledge in three subject areas, have steadily improved, yet they remain below the Organization for Economic Co-operation and Development (OECD) average.¹¹ Moldovan students lag behind their OECD peers by 2.6 years of schooling in reading, 2.3 years in mathematics, and 2.2 years in science.¹¹ In addition, nearly one-third of students do not possess sufficient skills to fully integrate into professional and social life.¹¹ Some of the barriers influencing poor student results may include outdated learning materials and methodologies, inadequate curricula, and poorly trained teachers.

Next to education, employment is a critical aspect of and challenge to youth well-being. Many young people in Moldova have limited access to decent jobs. According to the National Bureau of Statistics (NBS) of the Republic of Moldova, 40% of youth aged 15-29 were not in employment, education, or training (NEET) in 2014, compared to 17.9% among EU member states.¹³ Nevertheless, it must be noted that NBS NEET calculations include youth who have emigrated, and the actual rate is closer to 29%.¹¹ As a result of poverty, lack of local employment opportunities, and low salaries, a large number of Moldovans leave the country for better opportunities elsewhere. In fact, Moldova has one of the highest rates of out-migration globally, with close to one quarter of the population living abroad.¹⁴ Of the 753,813 Moldovan citizens who had left the country by the end of 2015, 27% were young people aged 15-29.¹⁴ Additionally, it is estimated that one in five Moldovan children has one or both biological parents working abroad.¹⁵ This migration has both positive and negative effects on youth well-being. The transfer of remittances, which account for 20% of the nation's gross domestic product, may provide improved living conditions for the children and youth left behind, yet the absence of parents can be emotionally challenging and may lead to inadequate care and negative education and health outcomes.⁵

Health challenges are also central to young people's well-being. In 2013, approximately 75% of Moldovans aged 16-29 considered themselves in very good health, which is much lower than the EU average (92%).¹¹ Moreover, there are notable disparities in perceived well-being by gender. Based on the Health Behavior in School-Aged Children (HBSC) study, an international self-report survey conducted every four years, 22% of 11-year-old females and 13% of 11-year-old males rated their health as fair or poor, constituting the highest marks among participating countries.¹⁶ Even more, the share increased to 34% for 15-year-old females, while remaining

constant for 15-year-old males.¹⁶ This disparity can likely be attributed to social norms and gender roles affecting young women's life satisfaction. Moldovan society, like many of its post-Soviet neighbors, remains highly paternalistic. For example, women are seen as primarily responsible for childcare and household activities. In a survey conducted by the Women's Law Center, 90.5% of men and 81.5% of women thought that for a woman the most important thing is to take care of the household and cook for her family.⁷ Likewise, 95% of men and 75% of women believed changing diapers, bathing, and feeding the children are all responsibilities of the mother.⁷

Of greater concern is that 41% of men and 19% of women stated that there are moments when women should be beaten.⁷ The existence of such attitudes toward traditional gender roles and stereotypes contributes to particularly high rates of intimate partner violence. Six out of ten women in Moldova have suffered from at least one form of violence perpetrated by their partners since the age of 15.⁸ Similarly, the degree of tolerance of sexual diversity in Moldovan society is low. Lesbian, gay, bisexual, and transgender (LGBT) people in Moldova experience considerable discrimination, hostility, and violence because of their sexual orientation and gender identity.⁹ In a study completed by the United Nations in 2015, only 18% of the population were willing to accept LGBT people as citizens and only 1% as family members.¹⁷ Overall, present-day perceptions of gender roles in Moldova have harmful effects across a spectrum of different societal dimensions. Most pertinent for the purposes of this thesis are the impacts that these stereotypes and other aforementioned country-level dynamics have on youth SRH.

2.2 SRH OUTCOMES IN MOLDOVA

SRH outcomes among Moldovan young people are quite worrisome, with many key indicators noticeably worse than in most neighboring and nearby countries. First, general sexual behavior tendencies among Moldovan youth must be considered. According to the nationally representative HBSC study, 18% of adolescents aged 15 and 39% of those aged 17 have had sexual intercourse, with a substantial difference between male and female responses.¹⁸ Thirty-three percent of 15-year-old males and 4% of females stated they were sexually active, while response rates increased to 61% and 22% respectively for 17-year-olds.¹⁸ Overreporting of sexual activity among males and underreporting among females could be explained by the persistence of previously discussed stereotypes, one of which being that young males should be highly heterosexually active, whereas females should preserve their virginity.¹⁹ Similarly, when asked about use of contraception at last sexual intercourse, 74% of 15-year-old males and 56% of females claimed they used a condom.¹⁶ At the same time, 6% of males and 10% of females reported using oral contraception, the lowest among participating countries.¹⁶ Although these self-reported data are unable to paint the full picture of youth sexual behavior, they do provide a useful glimpse into understanding possible reasons for current SRH outcomes.

Moldova has high levels of adolescent pregnancy, despite recent declines. In 2016, the adolescent fertility rate was 22.7 per 1,000 women aged 15-19, down from 27.9 in 2006, but still more than double the EU average of 10.5.⁵ Adolescent abortions account for about 10% of all abortions among women of reproductive age.²⁰ Also noteworthy is the incidence of STIs (specifically syphilis and gonorrhea), which was registered at 160 per 100,000 people aged 15-19 in 2014, the highest in all of Europe.⁴ Minimal progress has been made in improving this outcome in past years, as it was 169 per 100,000 relevant population in 2003.⁴

As for HIV, the proportion of young people aged 15-24 among total infected persons decreased from 31% in 2004 to 12.8% in 2014, yet HIV incidence increased from 15.9 to 20 per 100,000 in the same period.¹¹ There is also a considerable gender gap in HIV incidence. In 2014, 20.8 per 100,000 females aged 15-24 were newly infected compared to 9.2 per 100,000 males.¹¹ Likewise, the most recent data on the percentage of young people who correctly identified ways of preventing HIV transmission and who rejected major misconceptions about the disease come from 2012, at which point 33% had comprehensive correct knowledge about HIV/AIDS, 5% less than in 2011.^{21,22} Overall, while there have been some improvements in youth SRH in Moldova, there have also been clear declines. In order to make sense of these trends, it is crucial to understand the actions that have been taken thus far and why they have not been sufficient.

2.3 EFFORTS TO AMELIORATE SRH OUTCOMES IN MOLDOVA

In Moldova, SRHR were first recognized as a priority in 1994, following the International Conference on Population and Development in Cairo, Egypt.²³ However, it was not until 1999 that a national program for family planning and reproductive health services was endorsed by the government.²³ Government Decision No. 527 outlined specific measures aimed to promote responsible sexual behaviors, avoid unwanted pregnancies, and prevent STIs.²³ In 2001, three Youth-Friendly Health Centers (YFHC) were established, though they were not particularly active in their initial years of operation.²⁴

Then, in line with the United Nations Millennium Development Goals (MDGs), the National Reproductive Health Strategy (NRHS) 2005-2015 was developed, promoting a distinct focus on young people. The NRHS included goals such as establishing a YFHC in each of the

country's 35 administrative districts and introducing sexuality education in at least 80% of schools by 2015.²³ In 2005 alone, 12 additional YFHCs were created and a mandatory life skills-based education (LSBE) course, containing critical SRH subject matter, was implemented in schools.^{23,24} However, the LSBE course was quickly met with resistance, especially from clergy members, and it was removed from the curriculum after a few months.²² In 2007, the compulsory civics education course was supplemented by a module entitled "Life and Health: A Personal and Social Issue," which even today consists of only 44 hours over eight years (about 5.5 hours per year).²² The module covers very few SRH topics.^{25,26}

Starting in 2011, an initiative was launched to further scale up the number of YFHCs across the country.²⁴ By 2013, there were 38 YFHCs in the 35 districts.²⁴ The underlying goal in expanding geographic access to YFHCs was to increase utilization of services, and thus encourage safer sex behaviors and improve youth SRH outcomes. Nonetheless, many young people remain unaware of or do not use YFHCs. In fact, when surveyed in 2016, only 16.7% of youth knew that YFHCs existed, and among those who were aware of their existence, 71.3% stated they did not require the services being offered.¹¹ The biggest constraint to adequate service delivery is monetary, though insufficient training of health and education professionals is also of concern. With the expansion of facilities, the budget per YFHC decreased, and for many centers it constituted just half the amount necessary to provide good quality services.¹¹

Aside from YFHCs, the Youth Peer Education Network (Y-PEER) Moldova is also committed to promoting adolescent SRHR. Y-PEER Moldova, one of more than 50 branches of an international initiative launched by the United Nations Population Fund (UNFPA), was officially registered as a non-governmental organization (NGO) in 2013. Since its inception, the organization has carried out a variety of activities, including trainings for peer-to-peer youth

educators and teachers on SRHR, youth-led peer education lessons, workshops on social theater techniques to address SRHR through theatrical performances, an annual national social theater festival, and public discussions/debates on sexuality education, among others. Unfortunately, there are no publicly available evaluations on the reach and effectiveness of these activities.

Furthermore, shortly before Y-PEER Moldova began its activity, the Moldovan government adopted a groundbreaking piece of legislation related to reproductive health (Law No. 138 of 2012). Of particular interest as it relates to youth SRHR is Article 6:

Article 6. Adolescent sexual and reproductive health

- 1. Adolescents have the right to information and access to preventative reproductive health services adapted to their needs.*
- 2. Adolescents have the right to age-adapted sexuality education for assuring healthy psychosexual development, preventing sexually transmitted infections, HIV/AIDS, and unwanted pregnancies, and forming responsible parenting skills.*
- 3. Mandatory sexuality education and family life preparation must be carried out in schools and in other institutions where there are adolescents or youth, including those with special needs, following a specially elaborated program, which is part of the mandatory school curriculum and takes into account age, sex, and particularities of psychosexual development.*
- 4. Elaboration of age-adapted sexuality education programs for healthy psychosexual development, the prevention of sexually transmitted infections, HIV/AIDS, and unwanted pregnancies, and the formation of responsible parenting skills is assured by the Ministry of Education, in agreement with the Ministry of Health.^{27(p4)}*

The message here is very explicit: all adolescents have the right to school-based sexuality education, and it is the government's responsibility to ensure this right in order to protect the health and well-being of young people. However, since the failed LSBE course in 2005, the only concerted attempt to further sexuality education in schools, aside from the health-related civics education module, was the adoption of a national curriculum for the optional health education course. Health education has been an optional course in Moldovan schools for many years, but until 2015 a national curriculum did not exist, meaning that teachers who taught the course previously had to write their own unstandardized curricula.

The 2015 curriculum appears to have been developed rather hastily, as its implementation was delayed two months into the fall semester, and it is strikingly similar to the optional health education curriculum produced in 2004 by neighboring Romania.²⁸⁻³⁰ Nonetheless, of all the courses offered at the primary and secondary school levels, health education has the most lessons devoted to SRH, and hence possesses the most potential to deliver quality SRH information to youth. Over time, more students have chosen to take health education instead of other optional courses. The number of lower secondary school students enrolled in health education increased from 15,236 in the 2015-2016 academic year to 20,223 in 2016-2017.³¹ However, this is just a fraction of all eligible students; only 7% of adolescents were registered for the course in 2017.³ Additional concerns include inadequate teacher training and lack of supplementary materials, leading some educators to ineffectively present SRH topics or omit them altogether.

The NRHS expired in 2015 concomitantly with the MDGs and Moldova recently launched the National Program on SRHR 2018-2022 under the 2030 Agenda for Sustainable Development and the associated Sustainable Development Goals (SDGs).³² In line with the NRHS, the Law on Reproductive Health, and other foundational documents in the country's

quest to ameliorate SRH outcomes, the SRHR Program’s overarching goal is to ensure universal access to SRH services, with a continued emphasis on education.³² Though the Moldovan government has repeatedly prioritized school-based sexuality education in writing, this has not entirely translated into appropriate investments to carry out mandates and achieve outlined objectives. In moving forward, it is essential that the Ministry of Education (MOE) and partnering organizations draw from the expanding evidence base and international guidelines if they are to make sustainable strides in “assuring healthy psychosexual development, preventing STIs, HIV/AIDS, and unwanted pregnancies, and forming responsible parenting skills” among young people.^{27(p4)}

3.0 SCHOOL-BASED SEXUALITY EDUCATION

3.1 THE EVIDENCE BASE

School-based sexuality education is ideally a comprehensive, age-appropriate, scientifically accurate, rights-based, gender-focused process of teaching and learning about the cognitive, emotional, social, and physical aspects of sexuality in a formal academic setting.³³ It is rooted in gradually equipping and empowering children and youth with knowledge, skills, attitudes, and values to embrace and enjoy their sexuality, engage in safe and positive relationships, and take responsibility for their own sexual health and well-being, as well as that of others.³³ Over time, the evidence for the effectiveness of such programs has grown and strengthened, with several systematic reviews of experimental and quasi-experimental studies reporting meaningful impacts on an array of outcomes.

For instance, a 2008 review of 87 studies from around the world demonstrated that nearly all school-based sexuality education programs increased knowledge about various aspects of sexuality and the risk of unwanted pregnancy and/or HIV/STIs.³⁴ In addition, such programs have been shown to improve self-efficacy to refuse sexual intercourse and use condoms.³⁵ Correspondingly, students who receive school-based sexuality education are more likely to have fewer sexual partners³⁵, delay initiation of sexual intercourse³⁵, and use condoms and hormonal contraception³⁵⁻³⁷. Moreover, though many sexuality education curricula do not currently

integrate information on gender and power relations, inclusion of such topics significantly magnifies program effectiveness. A review of 22 curriculum-based sexuality education programs found that programs addressing gender and power relations were five times as likely to reduce STIs and unwanted pregnancy.³⁸ These results also have important implications for the effects sexuality education may have in promoting gender-equitable norms and preventing gender-based and intimate partner violence and discrimination, though this relationship has not yet been sufficiently investigated. A related point to consider is the potential for school-based sexuality education to encourage accepting attitudes and behavior toward sexual and gender minority peers. Preliminary studies have shown that LGBT-inclusive sexuality education curricula can diminish stereotypes and biases surrounding gender and sexual orientation, and thus foster a safer school environment for LGBT students, though further research is required.^{39,40}

3.2 INTERNATIONAL GUIDELINES

The past decade has produced a number of initiatives focused on defining and promoting school-based sexuality education globally. Of particular importance was the publication of regional and international guidelines, including UNESCO's *International Technical Guidance on Sexuality Education* and the *Standards for Sexuality Education in Europe* released by the WHO and the Federal Centre for Health Education (BZgA). These two landmark documents provide a thorough rationale for the necessity of sexuality education and offer a clear framework of topics that are integral to a quality school-based program.^{2,33} Topics are presented as part of a continual building block process that recognizes the needs of children and adolescents at all stages of their

development. This process begins at an early age because what is learnt early in life has an enduring impact on how sexuality is managed later on.^{2,33}

For instance, the *International Technical Guidance on Sexuality Education* separates topics and learning objectives into four age groups spanning primary and secondary school levels: 5-8 years, 9-12 years, 12-15 years, and 15-18+ years.³³ At the first age level, sexuality education provides basic messages about the body, emotions, and relationships, among others, in order to promote healthy social and cultural values as well as raise awareness about sexual abuse.³³ By this point many children have already begun developing clear-cut ideas about gender roles, so it is important that concepts related to human rights and respect for different norms regarding sexuality be introduced, too.²

The second age level marks the onset of puberty for most females and many males, hence, discussions surrounding physical, emotional, and social changes are critical.² Also important during this period is the introduction of topics concerning love, pregnancy, contraception, and diseases linked to sexuality, in addition to further elaboration on sexual and reproductive rights, gender roles, and anatomy and physiology.³³

At the third age level, almost all adolescents have started puberty, and females have most likely had their first menstrual period. Adolescents develop a sexual self-image, start finding people of the same age sexually attractive, gradually find out whether they are attracted to males or females, and begin to experiment in relationships.² Accordingly, more advanced concepts regarding body image, family planning, HIV and STIs, gender-based violence, and non-discrimination should be covered.³³

Ultimately, at the fourth age level, young people become much more independent and many have their first sexual experience. All previous lessons should be synthesized in the

facilitation of more complex discussions about intimacy, sexual pleasure and desires, bodily integrity, and partner's shared responsibility in preventing STIs and unintended pregnancies.³³ Overall, across the entire spectrum of age and development, each topic must be presented in a way that explores and nurtures positive values and attitudes, enabling children and adolescents to develop life skills such as critical thinking, communication, negotiation, decision-making, and assertiveness.^{2,33} The quality of a school-based sexuality education program is not only determined by its content, but also by the methodologies employed to effectively engage pupils and support their acquisition of these indispensable knowledge, skills, and attitudes.

3.3 IMPLEMENTATION

School-based sexuality education requires the application of a wide variety of interactive, student-centered approaches and tools, including brainstorming, case studies, role-playing and theater, short films, creative writing, research projects, problem-posing, informal dialogue, and debates.⁴¹ Through the utilization of these participatory techniques, students have the opportunity to observe the skills being promoted and then practice the skills themselves. In turn, upon using the skills in the classroom environment, it is much more probable that students will apply them to situations outside of school.² Additionally, given that sexuality is a subject that can generate strong emotions, embarrassment, and vulnerability, learners are likely to feel more comfortable and safe sharing their questions and opinions if they are actively involved in the educational process.³³ Hence, an atmosphere in which students' privacy and boundaries are respected is paramount.

The knowledge and experience that children and youth participants already possess should always be considered when facilitating sexuality education discussions and activities.⁴¹ By drawing on learners' existing understanding and awareness, sexuality educators can present hypothetical issues that closely reflect those that learners may be confronting.⁴¹ They can then guide students in devising methods to solve these problems, emphasizing particular life skills along the way.⁴¹ In doing so, educators will effectively build on students' ability to think critically about their own lives and the world around them.⁴¹ Students should be encouraged to step back and evaluate their beliefs and their community's standards and norms, and subsequently explore opinions that differ from their own in a respectful manner.⁴¹ At the same time, educators should continually foster students' capacity to synthesize the knowledge, skills, and attitudes acquired from lessons and apply them toward bettering themselves and their communities.⁴¹ Overall, in order to fulfill these core principles identified by the Population Council's *It's All One Curriculum*, sexuality education teachers must themselves possess the necessary knowledge, skills, and attitudes related to the subject matter and participatory pedagogical practices.

3.4 TEACHER TRAINING

Without knowledgeable and skilled sexuality educators, even the best curriculum will have little impact. In fact, many countries have cited insufficient teacher expertise as the primary obstacle to the success of school-based sexuality education programs.⁴² Accordingly, they have acknowledged teacher capacity-building to be a key priority.⁴² Through proper training, sexuality

educators can acquire the competencies necessary for delivering high-quality education to children and youth.

The competencies that teachers should possess in order to conduct sexuality education mirror those that students should obtain through lessons, and they can similarly be characterized within the three major domains of learning. Knowledge, as mentioned previously, includes sexuality education topics, health promotion and psychology, and student-centered teaching techniques.⁴³ Skills encompass an educator's ability to create and maintain an inclusive and enabling learning environment, use interactive approaches, communicate effectively, and reflect on beliefs and values.⁴³ As for attitudes, teachers must be committed to sexuality education, open-minded, and respectful of learners' boundaries and confidentiality.⁴³

In order to guarantee the quality and effectiveness of teacher training, both pre- and in-service components should be implemented, which requires ongoing oversight from the MOE.⁴⁴ Pre-service training entails practical instruction as part of future pedagogues' degree programs, while in-service training is designed for currently practicing sexuality educators. In-service training should not simply offer a one-off stand-alone course, but rather continual support throughout the duration of a teacher's career.⁴⁴ It could take on a variety of forms, such as routine in-person workshops and distance learning seminars via online tools.⁴⁴ In designing and administering training curriculum for sexuality educators, training of trainers courses and resource sharing must also be incorporated.^{42,43}

3.5 INTEGRATION

As far as the position of sexuality education in the school curriculum is concerned, there are essentially two options: a stand-alone subject or integrated across more than one existing subject.³³ Each of these approaches has certain advantages and disadvantages depending on national policies and competing priorities.³³ As a stand-alone subject, sexuality education is either completely separate from the rest of the curriculum or takes place within a broader health or life skills curriculum.⁴⁵ This makes monitoring, evaluating, and revising programs much less demanding.⁴⁵ However, while this may be ideal, school curricula are oftentimes overcrowded, making a stand-alone course more vulnerable to potentially being cut in the future due to time and budget constraints.⁴⁵ Hence, sexuality education is more commonly integrated into other subjects (e.g. biology, civics education, social studies, health, ethics).²

Wherever its place in the school curriculum, it is imperative that sexuality education be mandatory. When it is optional or only partially compulsory, a large number of students do not reap its benefits, and thus remain less adequately prepared to maneuver the various challenges and risks that they are bound to encounter throughout their lives.⁴⁵ In addition, as a compulsory subject, MOEs must appropriately invest in sexuality education by providing students and teachers with quality materials, including textbooks, manuals, and teaching guides.⁴⁴

3.6 MONITORING AND EVALUATION

School-based sexuality education programs must include monitoring and evaluation (M&E) systems to appropriately measure progress and identify problem areas for quality improvement.

A crucial aspect in designing a methodologically sound M&E plan involves aligning the inputs, activities, outputs, outcomes, and impact that make up a program. This can be accomplished most effectively by using a logic model, which gives a straightforward depiction of the pathways of change and helps define clear and relevant indicators.⁴⁶ Sexuality education indicators should be tracked through national education management information systems (EMIS), demography and health surveys, M&E frameworks on HIV/AIDS, and/or school inspection tools.³³ In general, the M&E of indicators can be separated into three primary components: monitoring (including process evaluation), outcome evaluation, and impact evaluation.^{42,44,47}

Monitoring is the systematic collection and analysis of information to determine if there are any discrepancies between how a program should be implemented in theory and how it is done in practice. It tracks the activities, inputs, outputs, and progress of the program and helps to keep these elements on schedule. This allows for necessary adjustments to improve the program's quality over time. In the early stages of developing a sexuality education program, pre-testing (or pilot testing) is essential.⁴⁷ Pre-testing gives valuable information about the program's suitability and acceptability, which is used to adapt materials and other program components before being finalized.⁴⁷ After the program has been pilot tested, monitoring should routinely assess multiple aspects of program delivery, such as coverage, curriculum and supporting materials, teacher training, and program-associated costs.^{42,44} Some possible indicators include the number of young people participating in school-based sexuality education, the percentage of educators utilizing participatory methods, and the number of teachers who have participated in training.⁴²

Outcome evaluation looks at how the sexuality education program has affected learners in the short and intermediate term. This includes changes in knowledge, attitudes, values, and

(behavioral) skills.⁴² Indicators for outcomes include reported changes in knowledge about safer sex and prevention of STIs/HIV and unwanted pregnancy, self-efficacy to refuse unwanted sex and use condoms, attitudes on gender equality, tolerance of sexual diversity, delay in sexual initiation, number of sexual partners, and use of condoms and other forms of contraception, among others.^{42,47} Knowledge indicators are derived from the curriculum contents and can easily be scored through examinations, while behavioral practices can be assessed through proxy measures such as population-based surveys.^{42,47} Indicators for attitudes and values are more complex and require the use of scales. For some concepts, like self-efficacy and attitudes toward gender norms, measurement scales already exist, whereas for others they have to be developed and validated.^{42,47}

Impact evaluation focuses on the long-term effects of the program, which are logically determined by the short- and intermediate-term outcomes. The core school-based sexuality education impact variable is improved SRH among young people. This entails decreases in unwanted pregnancy, STIs/HIV infection, and gender-based and intimate partner violence, as well as greater perceived equality in relationships.⁴² Given their potential to demonstrate a clear cause-and-effect relationship, randomized controlled trials are considered the gold standard for impact evaluation.^{42,47} However, sexuality is influenced not only by school-based sexuality education, but also by parents, peers, mass media, and the availability of health services, and it is virtually impossible to control for all of these factors.⁴⁷ In addition, if sexuality education is integrated across the mandatory school curriculum, it is unlikely that an adequate control group can be identified. Thus, it may be more pragmatic to base impact evaluation on a combination of different mixed methods and data sources, including document analysis, qualitative methods, modeling, quasi-experimental designs, and population-based surveys.^{44,47}

4.0 ESTONIA: AN INTERNATIONAL MODEL

Estonia has been recognized by international experts for its holistic approach to school-based sexuality education along with drastic improvements in SRH outcomes among young people. However, it was only within the past few decades that the Estonian program began to receive such praise. During the Soviet era (1922-1991), sexuality education was not included in the school curriculum at all. In what was then the Estonian Soviet Socialist Republic, however, some enthusiastic teachers managed to address SRH-related topics in the context of maintaining personal hygiene.⁴⁸ In 1989, shortly before the Soviet Union dissolved, a lesson called “Family Studies” was introduced at the secondary school level, in which students were primarily warned about the risks and dangers of premarital sexual intercourse, such as STIs and unwanted pregnancy.⁴⁸ Accordingly, these first attempts in the realm of sexuality education were generally insufficient and ineffective.

Upon independence in 1991, educational and medical professionals in Estonia began developing a sexuality education curriculum, which was partially funded by the MOE.⁴⁸ In 1996, Estonia became the first country of the former Soviet Union to officially integrate sexuality education in schools, as a component of the compulsory subject “Human Studies.”⁴⁸ The focus of Human Studies, since renamed “Personal, Social, and Health Education” (PSHE), has slightly shifted over the years. At the time it was conceived, its aim was “to develop pupils’ communication and decision-making skills, promote humanistic values, appreciate one’s family

and health, and promote motivation to achieve a healthy lifestyle.”^{48(p9)} Since then, the curriculum has been adapted twice, in 2002 and 2010. The main reasons for updating the program are the need to increase schools’ input in the promotion of healthy behaviors as well as their capacity to respond to various changes in society.⁴⁸ In 2010, for example, gender equality and the influence of gender stereotypes on health were added to the curriculum, having previously been left out.⁴⁹

Today, PSHE includes 35 lessons a year in grades 2-3 and 5-8, and covers sexuality education topics along with communication skills, drug prevention, nutrition, and physical activity, among others.⁴⁹ The sexuality education component of the course constitutes about one fifth of the curriculum, though it is difficult to define exactly how extensive this proportion is since so many of the general skills (e.g. negotiation and decision-making skills) are essential not only for sexuality, but also for navigating other life challenges.⁵⁰ In addition, elements of sexuality education are integrated in biology classes, where students learn about reproduction, contraceptive methods, and family planning.

The national curriculum for upper secondary schools (grades 10-12) contains further sexuality education, which is also mandatory within the PSHE discipline for students who continue their studies past 9th grade. In 2016, 89% of 25- to 34-year-olds in Estonia had attained at least upper secondary education, 6% higher than the OECD average.⁵¹ Given its comprehensive and compulsory character, a 2014 survey found that only 2% of women aged 16-24 had not received sexuality education in school, and around 75% felt that the education they did receive was sufficient.⁵⁰

Over the past two decades of school-based sexuality education in Estonia, there have been notable downward trends in adolescent pregnancies, STIs, and HIV, accompanied by

improvements in sexual knowledge and safe sexual behavior. For instance, Estonia has seen one of the most rapid declines in adolescent fertility in the EU, dropping from 33.7 per 1,000 women aged 15-19 in 1996 to 13.3 in 2016.⁵ Meanwhile, the incidence of STIs in the population aged 15-19 was 488.7 per 100,000 in 1996 and was most recently registered at 31.4 in 2014.⁴ As for HIV, 78% of all new cases were diagnosed among 15- to 24-year-olds in 2001, whereas in 2016 this age group accounted for just 6% of all new cases.⁵² This improvement goes hand in hand with knowledge about HIV; 82% of Estonians aged 15-24 had correct knowledge of routes of HIV transmission in 2007, a number that is likely even greater today.⁵³

Taking into account these trends, a cost-effectiveness study conducted during 2010-2011 estimated that the sexuality education program in Estonia had averted as many as 4,280 unwanted pregnancies, 7,420 STIs, and 1,970 HIV infections over the period 2001-2009, with a 13-year total cost of \$5.6 million and per student cost of \$33.⁵⁴ Given these results, researchers concluded that the sexuality education program is not only cost-effective but also cost-saving, particularly considering lifetime treatment costs associated with HIV.⁵⁴ Furthermore, this analysis did not factor in changing sexual behaviors among Estonian young people, such as condom use. According to the HBSC survey, 70.5% of 15-year-old females and 75.9% of males in Estonia used a condom at last sexual intercourse in 2001-2002.⁵⁵ When the survey was conducted in 2005-2006, these responses grew to 81% and 88%, and in 2009-2010 they were the highest among all participating countries, reaching 89% and 91%, respectively.^{56,57} In addition, there is virtually no difference between the percentage of 15-year-old males and females who reported having sexual intercourse, both averaging around 22% over the past three HBSC study cycles.^{16,56,57}

That being said, it must be mentioned that the impact of school-based sexuality education cannot be separated from another important innovation in Estonia – the creation and expansion of youth-friendly SRH services. A network of 16 youth-friendly SRH clinics, similar in scope to the YFHCs in Moldova, has gradually been established since 1991.⁵⁰ From the beginning, youth-friendly clinics aimed to provide young people with both individual counseling and group sexuality education, as it was initially thought that the clinics could help fill the gap until sexuality education was fully integrated into schools.⁴⁸ Notwithstanding, the services have remained in demand, and it is estimated that 40% of 10- to 19-year-olds visit youth-friendly SRH clinics in order to participate in sexuality education lectures.⁴⁸ Thus, improvements in young people’s knowledge and SRH outcomes are likely the result of these two closely linked processes working together. Nonetheless, the school-based sexuality education program in Estonia presents an effective and comprehensive model that Moldova and other countries can learn from.

5.0 SEXUALITY EDUCATION REVIEW AND ASSESSMENT

The following comparative assessment of the school-based sexuality education programs in Moldova and Estonia was performed using the Sexual Education Review and Assessment Tool (SERAT)⁵⁸. SERAT is a Microsoft Excel-based tool that supports the review of sexuality education programs at the primary and secondary school levels. It was developed by a UNESCO staff member in West Africa using international evidence and best practices outlined in UNESCO's *International Technical Guidance on Sexuality Education* and the Population Council's *It's All One Curriculum*. SERAT includes analysis of curriculum content in four different age categories, in addition to overall program design, national policy, teacher training, and M&E. The tool is user-friendly and accessible with features such as built-in instructions, tabs for each topic, drop-down answers, and the ability to instantly convert data into graphs. In turn, these data and graphs help reveal the strengths and weaknesses of programs, which can be used to identify and implement necessary reforms and improvements.

Data on the sexuality education programs in Moldova and Estonia primarily come from their respective national primary and secondary school curricula. For both countries, this required a thorough review of multiple subjects that contain varying degrees of sexuality-related content. In Moldova, sexuality topics are found in mandatory civics education and biology curricula^{25,26,59,60}, as well as the optional health education curriculum^{29,30}. As mentioned above, sexuality education in Estonia is primarily integrated into the PSHE curriculum^{61,62}, though some

concepts are also found in the biology curriculum^{63,64}. When relevant data for particular aspects of the programs could not be obtained from the curricula, such as teacher training and M&E, international^{4,16,43,54}, national^{21,52,53,65,66}, and non-governmental⁶⁷ resources were utilized. In essence, the information collected and included in the SERAT analysis provides an overview of underlying differences between school-based sexuality education approaches in these two post-Soviet states and accordingly helps to justify the recommendation of long-needed changes to the program in Moldova.

5.1 OBJECTIVES AND PRINCIPLES

The rationale outlined in the Estonian and Moldovan curricula places a strong emphasis on objectives related to knowledge, skills, and attitudes. Both curricula acknowledge that these three learning domains are integral to affecting positive health behavior change. However, while the general structure and focus of objectives is similar between programs, the long-term outcome objectives differ in scope and purpose. The SERAT analysis included four overarching impacts: 1) Reducing unintended pregnancy, 2) Reducing HIV, 3) Reducing STIs, and 4) Reducing gender-based violence. Whereas the Estonian program effectively captures all of these public health outcomes, the Moldovan program does not equally and adequately target all outlined objectives. For example, elements of HIV prevention are strongly expressed throughout the curriculum, STIs and unintended pregnancy are markedly less emphasized and receive moderate attention, and gender-based violence is only tangentially captured by related conflict resolution and violence prevention topics. In turn, these observations explain the respective evaluation of objectives depicted in Figures 1 and 2.

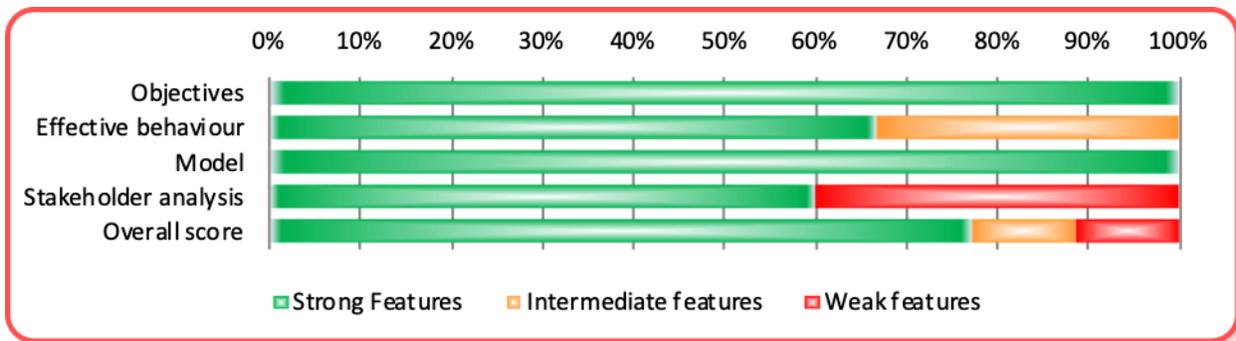


Figure 1. Estonia: Objectives and Principles

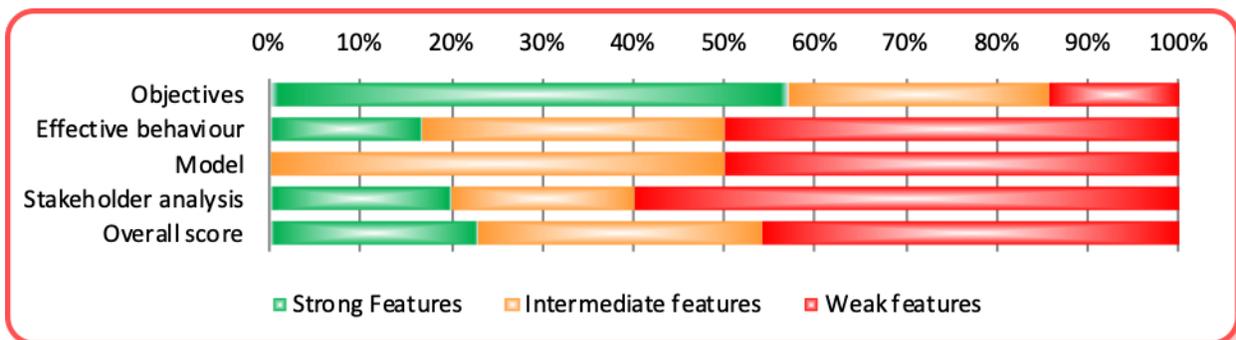


Figure 2. Moldova: Objectives and Principles

Likewise, the behavior-oriented process objectives also vary across programs. The Estonian program has an intermediate-to-strong focus on all behaviors considered in the assessment, while the Moldovan program has several weak features in this respect. Behaviors such as making use of nearby reproductive health services, identifying pressures to have sexual intercourse, suggesting ways of responding to pressures, using condoms correctly and consistently, and overcoming barriers to obtaining or using condoms are not sufficiently prioritized in the Moldovan curricula.

Given these weaknesses in process and impact objectives, it comes as no surprise that the Moldovan program is not based on a well-reasoned logic framework. In addition, the Moldovan curricula was not pilot-tested before being integrated into schools, nor did the development

process involve experts in research on human sexuality. Consequently, the model component of the Moldovan program was scored with solely weak and intermediate features.

As for the stakeholder analysis, the Moldovan curriculum development was completed by a handful of distinguished teachers selected by the MOE and did not adequately consider the interests of other key groups. This differs from the Estonian curriculum, which was initially elaborated by several educational and medical specialists, with other invested parties like the Estonian Sexual Health Association (ESHA) and the LGBT Association contributing to program revisions. Meanwhile, since young people, parents, people living with HIV (PLHIV), and religious groups and leaders were not involved in the development of either curriculum, both programs were evaluated as having some weak features for this criterion.

5.2 PROGRAM CONTENT (5-8 YEARS OLD)

Program content is presented in two separate figures for each country, one broken down by key concept and the other by learning focus. For the 5-8 age group, the Moldovan health education curriculum and the Estonian PSHE curriculum were exclusively assessed since no other subjects contain sexuality-related topics for students at this level. Interestingly enough, the two curricula are considerably different across every single key concept and focus of learning.

To start, the Estonian program has particularly strong content surrounding interpersonal relationships and communication, negotiation, and decision making, while the Moldovan program has a large number of weak elements in these areas. Relevant themes for interpersonal relationships that are absent from the Moldovan curriculum include diversity of family structures, types of relationships, feelings associated with interpersonal relationships, intimate

relationships, and how family, peers, religion and communities shape values. Rights and responsibilities of family members, how health and disease can affect families, and how values and beliefs guide understanding of sex and gender have intermediate features and require strengthening. Furthermore, nearly all of the topics related to communication, negotiation, and decision making are weak or nonexistent in the Moldovan curriculum, such as basic decision-making rights and principles, types of communication, being assertive to preserve one’s privacy and protect oneself from harm, and peer pressure, among others.

Sexuality and sexual behavior at this age concentrate mostly on the private nature of certain body parts and the natural curiosity about them, sources of learning about sexuality, and human rights to prevent abuse and gender-based violence. Neither program places a strong emphasis on these aspects this early, which explains the predominantly weak features indicated in Figures 3 and 4. Moreover, the SRH category contains a cluster of topics on HIV/AIDS, which both curricula delay to a later age. The Moldovan program also lacks information on children’s rights to care and attention from parents.

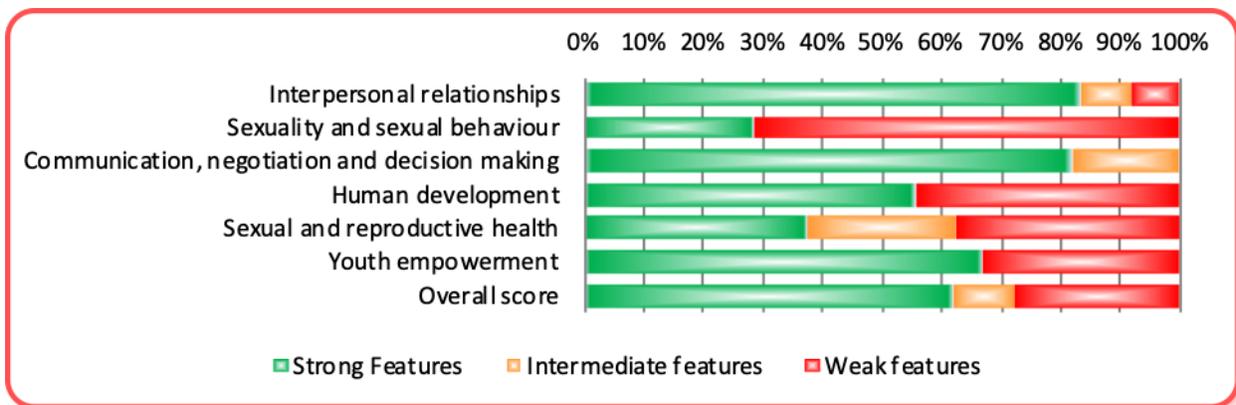


Figure 3. Estonia: Content by key concept (5-8 years old)

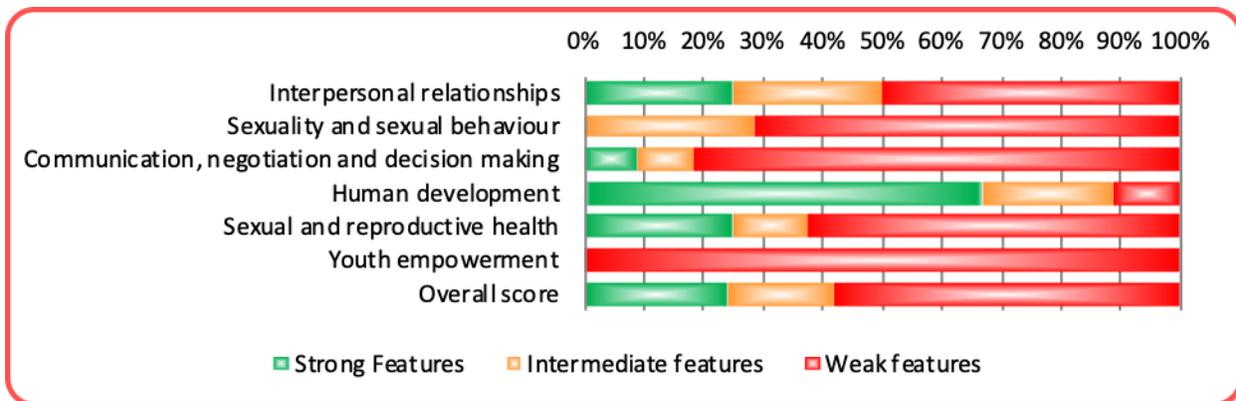


Figure 4. Moldova: Content by key concept (5-8 years old)

In the 5-8 age bracket, Moldova scores better than Estonia in just one concept area: human development. Topics on how bodies change as people grow and differences between male and female bodies are well presented in the Moldovan curriculum, while the Estonian curriculum introduces this content at the next age level. At the same time, the Estonian program is effective at empowering youth to recognize whether something is just or unjust and to help people who are victims of unfair treatment, whereas the Moldovan program has strictly weak features with regard to youth empowerment.

Figures 5 and 6 depict another interesting dynamic that distinguishes the two curricula. Of the three major learning domains, the Estonian program most emphasizes skill development while knowledge receives the least attention. In Moldova, this phenomenon is inverted, with knowledge at the top of the list and skills at the bottom. Additionally, the Estonian curriculum covers 80-90% of all human rights- and gender-focused topics with generally strong features, while the Moldovan curriculum contains only 65-80% of these topics, which are comprised of a combination of strong and intermediate features. Content focused on social norms is largely not addressed in the Moldovan program.

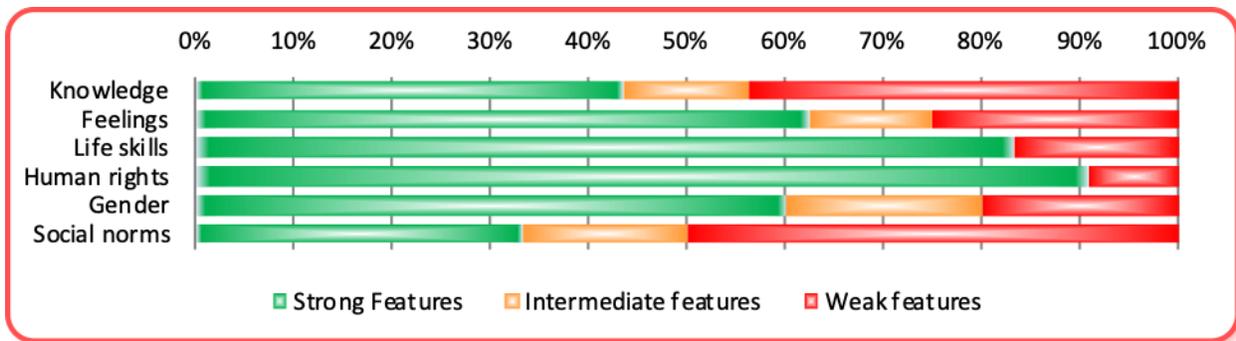


Figure 5. Estonia: Content by focus of learning (5-8 years old)

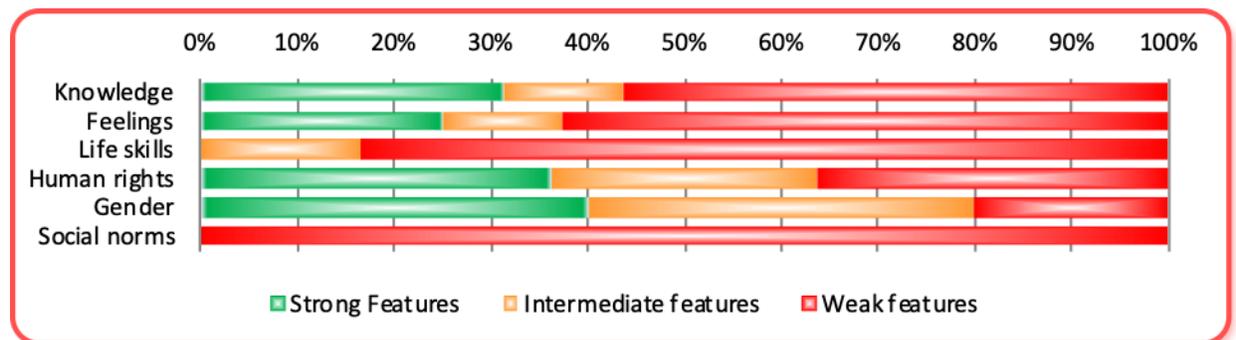


Figure 6. Moldova: Content by focus of learning (5-8 years old)

5.3 PROGRAM CONTENT (9-12 YEARS OLD)

At the 9-12 age level, similar observations distinguish the content of the two programs, which in addition to health education and PSHE includes all other relevant subjects containing sexuality topics. Nevertheless, it first must be noted that both programs score particularly low for the key concepts of interpersonal relationships and SRH. Over half of the themes included under interpersonal relationships are related to marriage, such as the age of majority for marriage, free and arranged marriage, child marriage, and the influence of religion and social practices on marriage. At this age, neither curriculum even mentions marriage, likely because this is not an area of concern as it may be, for example, in Africa, where SERAT was developed. Furthermore,

about half of the topics covered in the SRH category are related to the signs of pregnancy, pregnancy prevention, and health consequences associated with adolescent pregnancy, with the other half focusing on HIV treatment and prevention, challenges of living with HIV, and resources for PLHIV. The Estonian program includes some information on pregnancy and HIV prevention, while the remaining topics are left out. Moldova delays pregnancy-related topics altogether and devotes a few lessons to HIV transmission and challenges of living with HIV.

Aside from the two aforementioned concept areas, the Estonian curriculum for the 9-12 age group scores exceedingly well. As seen in Figure 7, it is missing just 20% of themes outlined for sexuality and sexual behavior and contains all of the components regarding communication, negotiation, and decision making, human development, and youth empowerment. Moldova, on the other hand, has a large percentage of weak features for all of these categories, aside from human development, as depicted in Figure 8. Similar to the 5-8 age level, human development is the strongest key concept in the Moldovan curriculum. Topics such as the structure and function of sexual and reproductive organs, biological and social aspects of puberty, and young people’s needs during puberty score above average, while topics about pregnancy, privacy, and sexual harassment have intermediate or weak features.

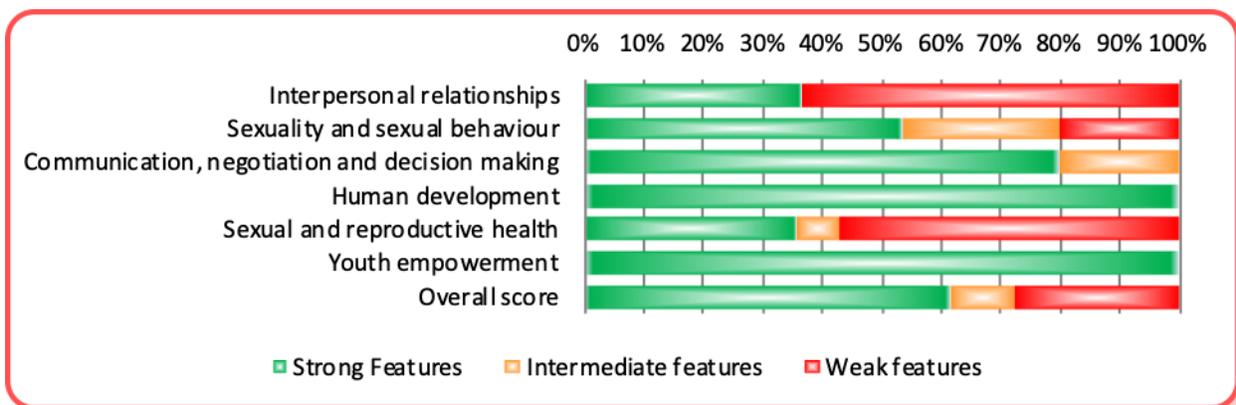


Figure 7. Estonia: Content by key concept (9-12 years old)

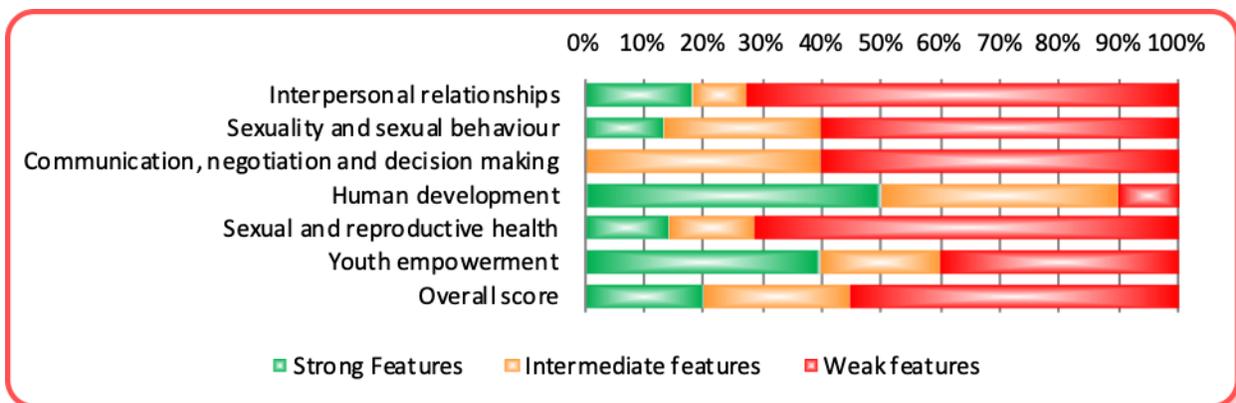


Figure 8. Moldova: Content by key concept (9-12 years old)

With regard to the sexuality and sexual behavior concept, many of the weak features in the Moldovan program stem from an inadequate focus on human rights, gender, and social norms. As shown in Figure 9, these three foci of learning are the least represented. For instance, human rights topics such as legal norms about sexuality and sexual coercion, gender topics such as the influence of mass media on gender and sexuality, and social norms topics such as the influence of families on values about sexuality are poorly developed in the Moldovan curriculum. Similarly, the sexuality and sexual behavior components that are absent from the Estonian curriculum are also connected with human rights and social norms, as illustrated in Figure 10.

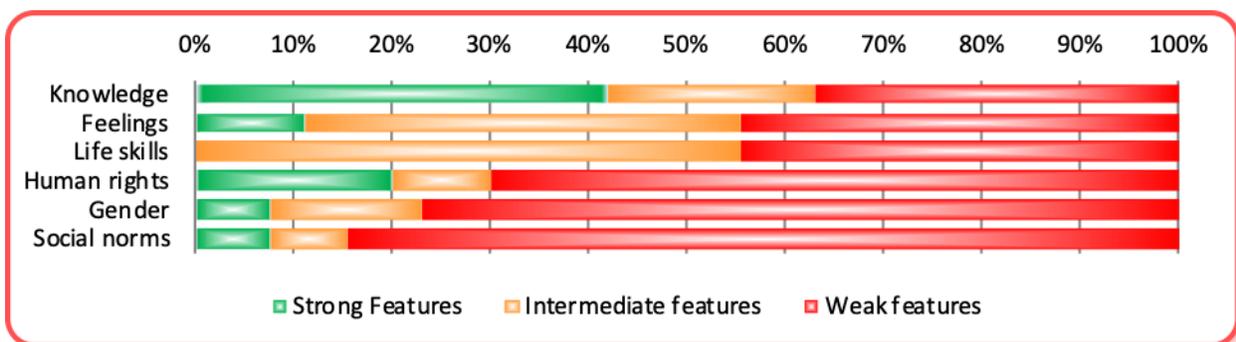


Figure 9. Moldova: Content by focus of learning (9-12 years old)

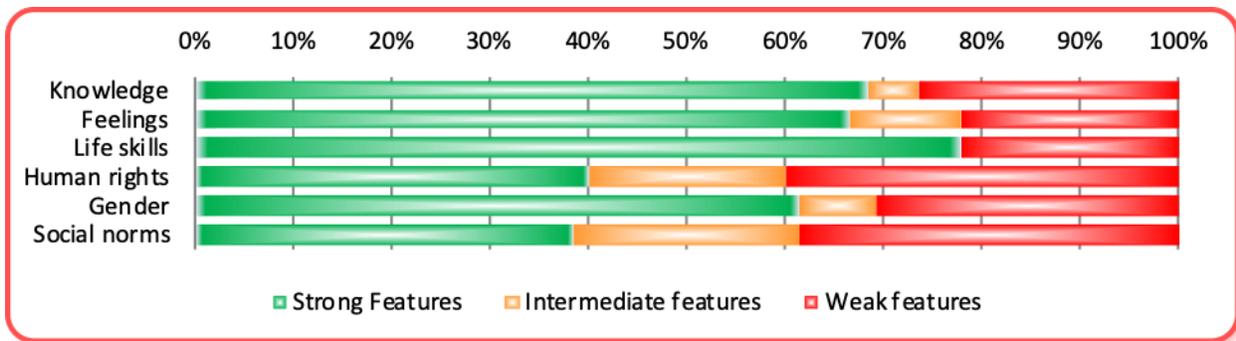


Figure 10. Estonia: Content by focus of learning (9-12 years old)

The Moldovan curriculum covers only 40% of content concerning communication, negotiation, and decision making, and that which it does cover has exclusively intermediate features. Meanwhile, the main topics missing in youth empowerment are geared toward making young people aware of their responsibility to help people when they are being harassed and ways in which they can promote human rights through simple actions. Overall, life skills are again the strongest learning domain in the Estonian program and the weakest in the Moldovan program.

5.4 PROGRAM CONTENT (12-15 YEARS OLD)

The overall score for both programs is higher for the 12-15 age group compared to the younger two levels. Additionally, many of the trends observed previously reemerge in the curricula at this level. For example, as illustrated in Figures 11 and 12, skills development remains the strongest learning domain in the Estonian curriculum and the weakest in the Moldovan curriculum. In fact, a lower percentage of themes focused on life skills is covered in Moldova at this stage compared to the last age group, while a higher percentage is covered in the Estonian program. Furthermore, gender and social norms continue to be the weakest foci of learning in the Moldovan program.

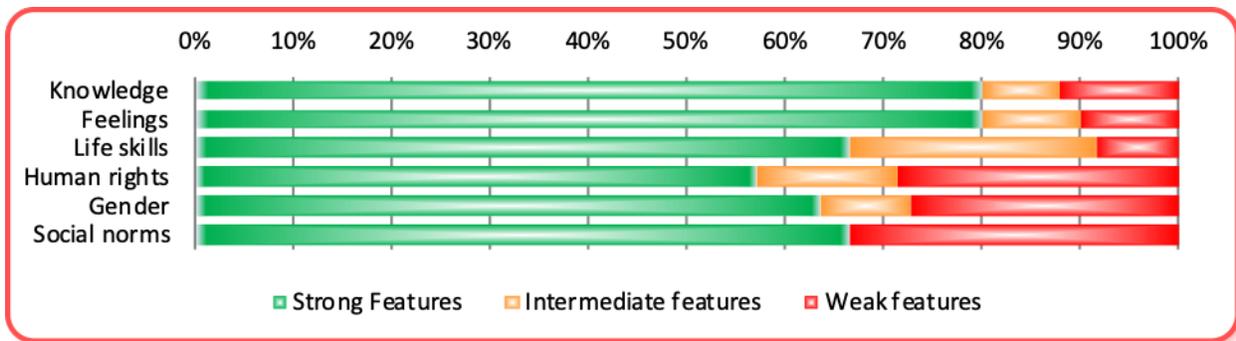


Figure 11. Estonia: Content by focus of learning (12-15 years old)

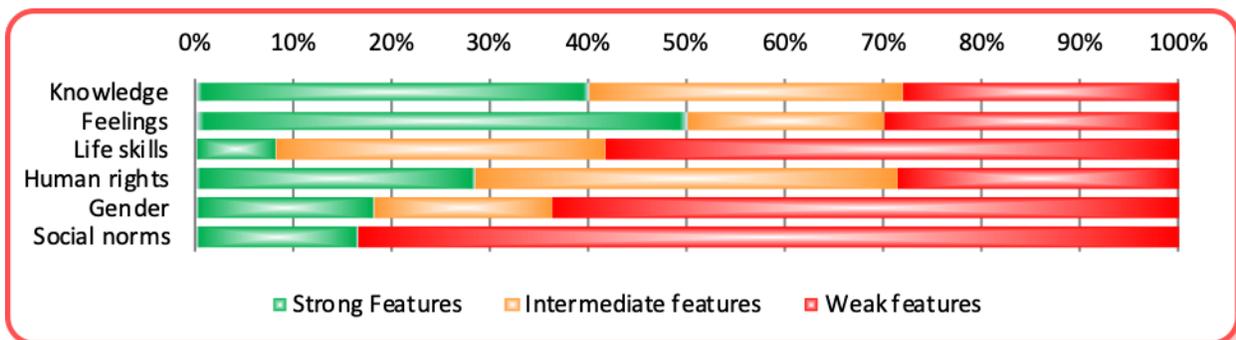


Figure 12. Moldova: Content by focus of learning (12-15 years old)

As for content by key concept, reflected in Figures 13 and 14, all of them score above 70% with strong and intermediate features in the Estonian curriculum, while concepts in the Moldovan curriculum range from 35-75%, with a comparatively greater proportion of intermediate features. In the Estonian curriculum, three of the key concepts do not have any weak features: interpersonal relationships, human development, and communication, negotiation, and decision making. Comparably, the Moldovan curriculum scores moderately well for these concepts. In terms of interpersonal relationships, themes about kinds of relationships, elements of satisfactory and respectful intimate relationships, and the harmful effects of discrimination and bullying are well integrated in the Moldovan program. Moreover, peer influence on discrimination and bullying, sexual pressure in intimate relationships, and techniques to resist sexual pressures require further development. The Moldovan curriculum is also missing

important information on communication, negotiation, and decision making, such as appropriate sources of help (e.g. YFHCs), shame and guilt as barriers to seeking help, and gender inequalities that inhibit rational sexual decision making. Human development themes like correct use of a pregnancy test and consequences of physical changes on self-image also have weak features.

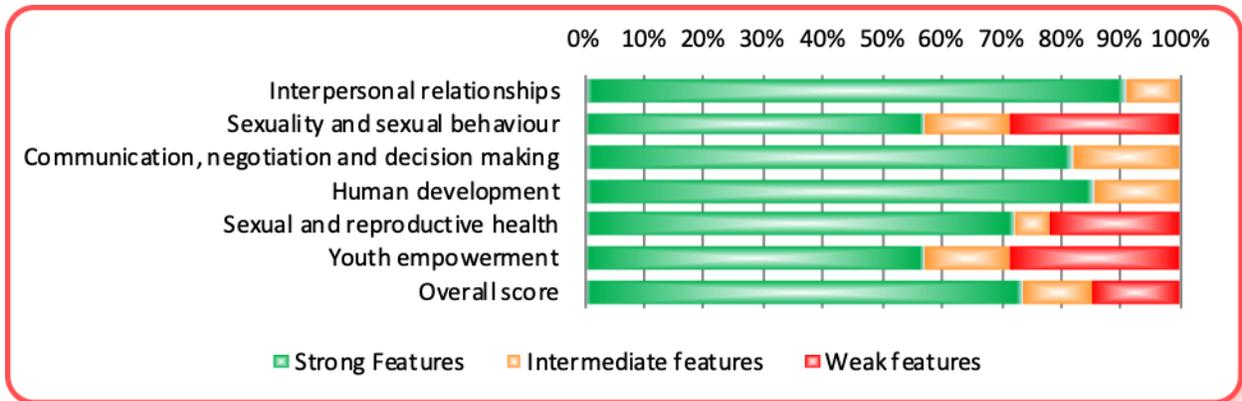


Figure 13. Estonia: Content by key concept (12-15 years old)

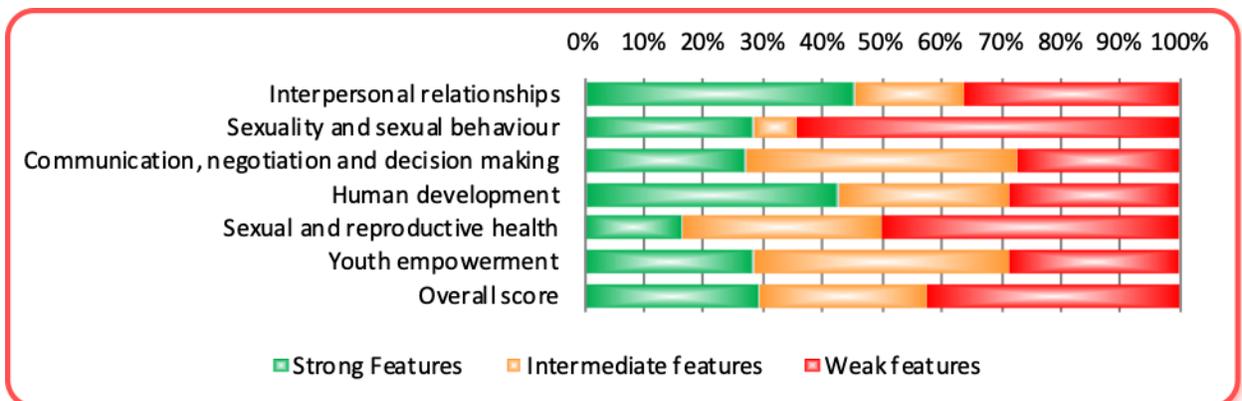


Figure 14. Moldova: Content by key concept (12-15 years old)

Nonetheless, the two weakest key concepts in the Moldovan program are sexuality and sexual behavior and SRH. Specifically, about 65% of sexuality and sexual behavior topics have weak features, which include tolerance toward sexual diversity, types and consequences of coercion, influence of mass media on gender stereotypes and self-esteem, cultural factors that influence sexual activity, and impacts of bullying and peer pressure on sexual decision making.

Topics related to coercion and mass media are not well emphasized in the Estonian curriculum either. As for the SRH concept area, the Moldovan program lacks sufficient content on sexual and reproductive rights, access to prevention methods, utilization of SRH services, and gender inequalities in exposure to STIs, among others.

Youth empowerment scores are approximately the same for both programs, though Moldova has a greater proportion of intermediate features. Both programs are missing information about sexual and reproductive rights of PLHIV and have intermediate content on national laws and international agreements affecting SRHR. In addition, the Moldovan program does not contain a topic on people's responsibility to speak out against bias and intolerance.

5.5 PROGRAM CONTENT (15-18+ YEARS OLD)

The overall score for the Estonian program, taking into account all strong and intermediate features, is higher for the 15-18 age group than any other level (Figure 15). Conversely, the overall score for the Moldovan program is lower at this stage than all other age categories (Figure 16). In the Moldovan curriculum, several of the key concepts do not possess any strong features. For example, as part of the interpersonal relationships concept area, there is a combination of themes focused on disclosures (e.g. HIV-positive status, pregnancy, sexual orientation), how to deal with them, their impact on family members' roles, and the shame and fear associated with delaying disclosures. These topics are largely absent from the Moldovan curriculum and are only moderately accentuated by the Estonian curriculum. In addition, the Moldovan curriculum leaves out information on relevant laws concerning abusive relationships,

identifying trusted persons to share information and issues about sexuality, and influence of gender on mobility and social connection.

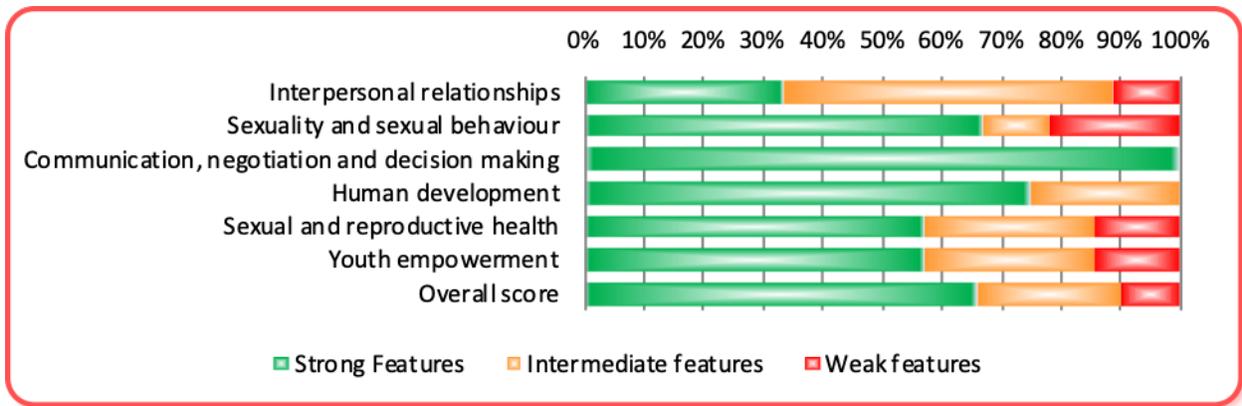


Figure 15. Estonia: Content by key concept (15-18 years old)

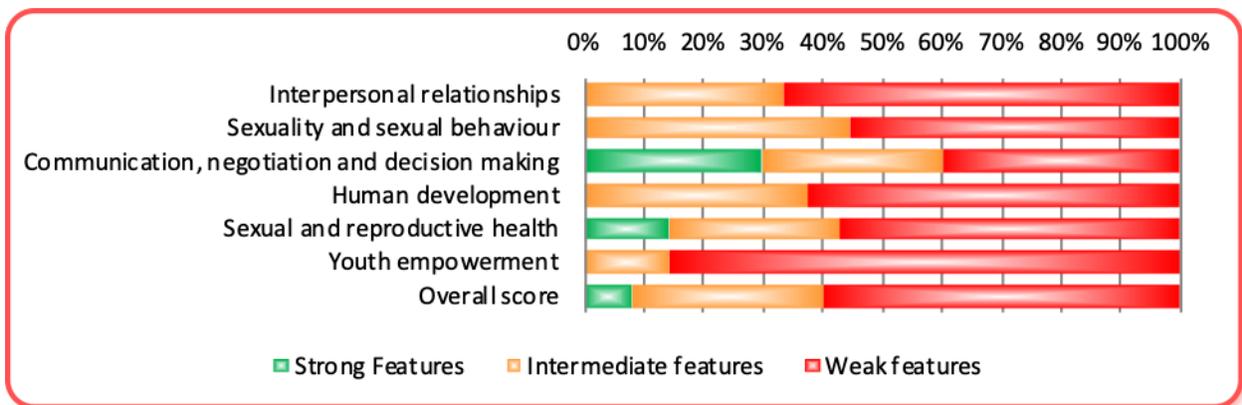


Figure 16. Moldova: Content by key concept (15-18 years old)

Much like the previous age level, communication, negotiation, and decision making and human development concepts are fully integrated in the Estonian curriculum. On the other hand, the Moldovan program has significant room for improvement. Topics on rational decision making regarding SRH issues, assertiveness and negotiation skills to resist unwanted sexual pressure, and the influence of gender roles on negotiation of sexual relationships all have weak features. Furthermore, human development themes such as rights to privacy and bodily integrity, acceptance of differing sexual orientations and gender identities, unrealistic standards about

bodily appearance, and the influence of gender roles on sexuality are also poorly developed in the Moldovan curriculum.

As far as sexuality, sexual behavior and SRH concepts are concerned, the Estonian curriculum has only a few weak and intermediate features, such as international and national legal instruments regarding sexuality, influences of mass media messages on sexuality, and the impact of stigma and discrimination of PLHIV. Aside from these topics, the Moldovan program does not contain adequate information on sexual pleasure, gender inequality and risk of sexual coercion and abuse, social and cultural norms influencing consent and coercion, personal benefits and possible risks of available methods of contraception, and attitudes about disclosing STI/HIV status to a sex partner, among others.

Youth empowerment is the weakest aspect of the Moldovan curriculum with inadequacies regarding government responsibilities for protecting SRHR, effects of gender on civic and political participation, experiences and feelings in trying to promote SRHR and/or gender equality, and research focused on sexuality issues, all of which are found to some degree in the Estonian curriculum. Moreover, there continues to be a clear discrepancy in attention devoted to life skills and feelings versus knowledge in the Moldovan curriculum, though this difference is much more pronounced at this level than any other. As shown in Figure 17, knowledge receives about twice as much attention compared to life skills. It also illustrates that only 20% of human rights and gender topics are included in the Moldovan curriculum. At the same time, life skills are the strongest learning domain in the Estonian curriculum, and topics around human rights and gender are very well established (Figure 18).

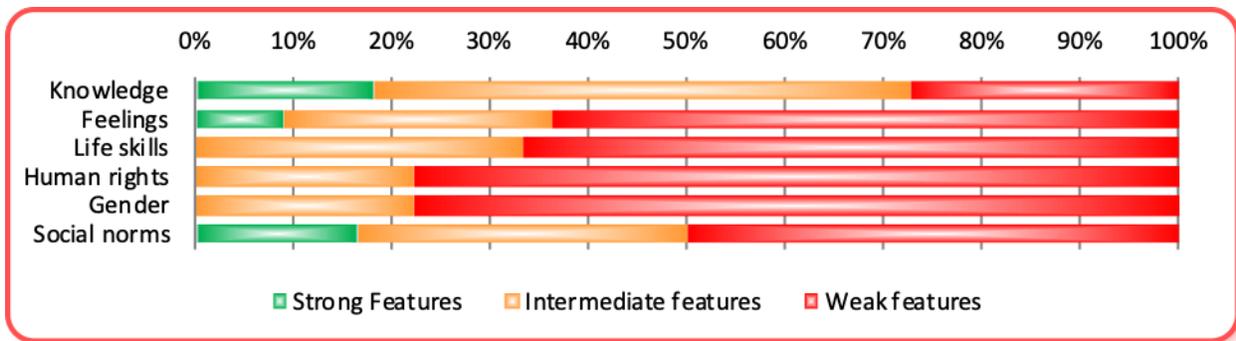


Figure 17. Moldova: Content by focus of learning (15-18 years old)

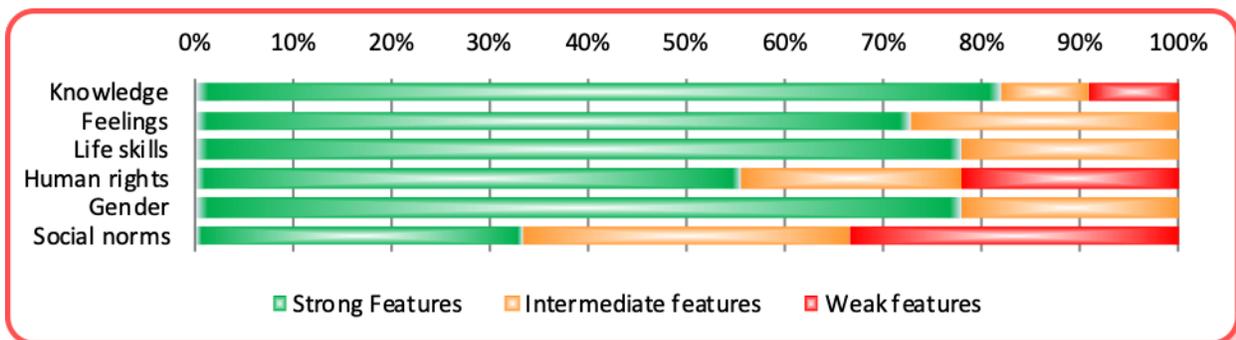


Figure 18. Estonia: Content by focus of learning (15-18 years old)

5.6 IMPLEMENTATION

The Estonian curriculum contains all implementation criteria outlined by SERAT to a strong degree (Figure 19), while the Moldovan curriculum has room to improve certain components that have intermediate features (Figure 20). For instance, a few of the key principles established by the Population Council’s *It’s All One Curriculum* are not sufficiently integrated in the Moldovan program. The program could do more to draw on learners’ experiences and integrate new information into what they already know and think. By enhancing this aspect, the program can build on students’ power to reflect and think critically about their own lives and the world around

them. Ultimately, Moldovan students should be able to apply what they learn to their lives and communities, a principle that is only moderately emphasized in the curriculum.

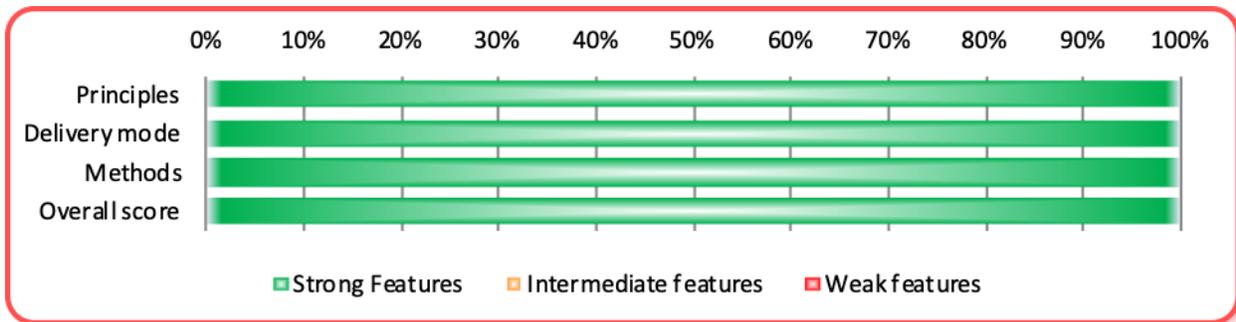


Figure 19. Estonia: Implementation

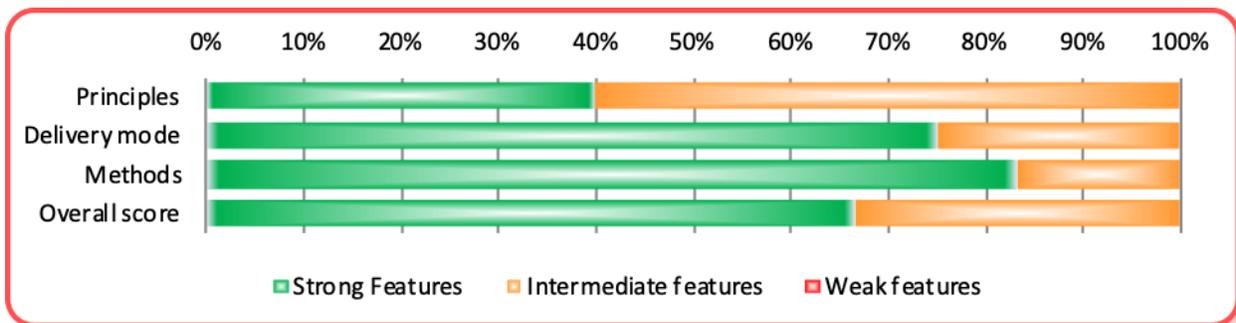


Figure 20. Moldova: Implementation

The Moldovan program, like that in Estonia, includes lecture-based formal classroom teaching, participatory classroom teaching, and self-learning activities. The only delivery component that has intermediate features is related to peer education. When utilized, peer education is generally part of extracurricular activities rather than formal classroom lessons. In addition, both programs contain a combination of methods, including energizers, discussion triggers, creative play, group discussions, and personal reflection. One technique that requires greater attention in the Moldovan curriculum is participatory reflections and analysis (e.g. community mapping, problem trees, research projects).

5.7 TEACHER TRAINING

Pre- and in-service teacher training programs on sexuality education are firmly established in Estonia (Figure 21), whereas in Moldova they are not well developed (Figure 22). In Estonia, pre-service training is mandatory for all teachers-to-be who have chosen health education as one of their three specialization areas. The teacher training curriculum is based on the primary and secondary school curricula, and it is supported by the MOE, the National Institute of Health Development, teacher organizations, ESHA, and pedagogical universities. In addition, roughly half of all sexuality educators participate in in-service training courses. Over the years, there have been a number of one- and two-day courses on topics such as gender stereotypes, dating violence, and healthy relationships. All trainings are guided by a national teacher training manual and address reasons why sexuality education is needed, common concerns about its provision, educators' own values and opinions, ways to overcome embarrassment and uncomfortable situations, and diversity of bodies, beliefs, attitudes, norms, and behaviors.

In Moldova, there are not any minimum standards set for teacher training in sexuality education, and thus there is not a national teacher training curriculum, nor is pre-service training offered by the pedagogical universities. The only type of teacher training that does take place is a three-part course organized by Y-PEER, which has reached a total of only 60 educators in the past two years. Furthermore, it is not clear what competencies teachers acquire from the course because the curriculum is not publicly available, though it is supported by the MOE and UNFPA. These deficiencies explain why Moldova scores so poorly in terms of teacher training, with 80% of international recommendations not being implemented.

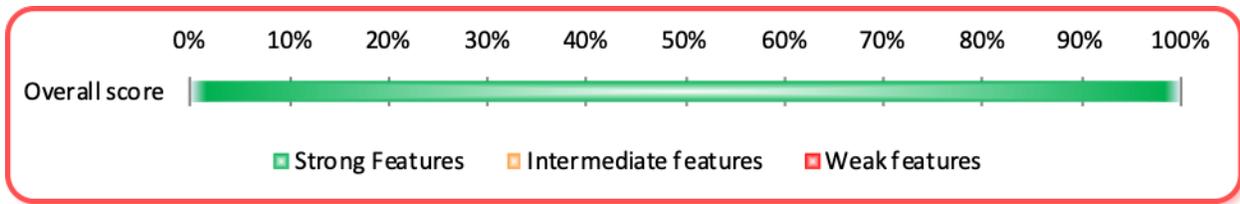


Figure 21. Estonia: Teacher training

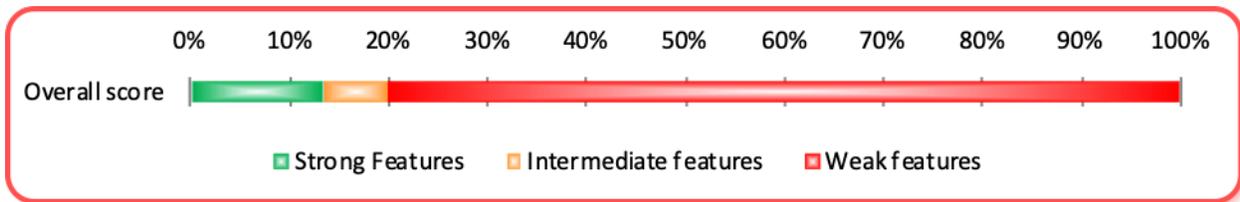


Figure 22. Moldova: Teacher training

5.8 INTEGRATION

As illustrated in Figures 23 and 24, integration is another area in which the Estonian program excels and the Moldovan program lags behind. First, whereas the sexuality education program in Estonia covers the entire national territory, the Moldovan program does not, since the bulk of sexuality topics are found in the optional health education course. That being said, sexuality education is not taught as a compulsory, examinable subject in primary and secondary school in Moldova as it is in Estonia. Likewise, another component that went into this evaluation was whether adequate time is allocated to sexuality education in primary and secondary schools, which was similarly considered to be a weak feature of the Moldovan program due to its optional and unstandardized nature. Lastly, while Estonia has invested in quality sexuality education manuals and teaching guides, such materials have been long awaited by Moldovan students and teachers. There is only one intermediate feature of the Estonian program's integration because

sexuality education begins in the second year of primary school and not the first as outlined by SERAT.

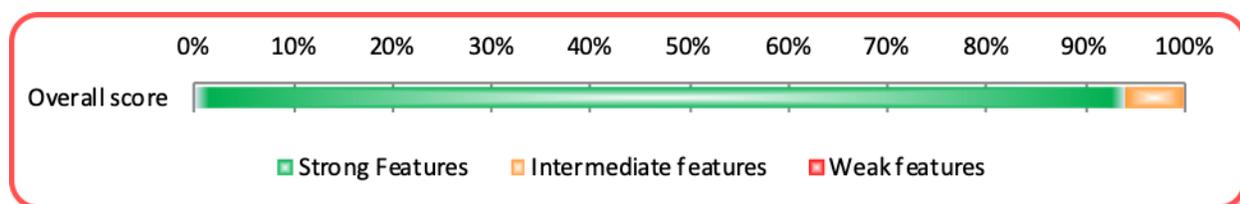


Figure 23. Estonia: Integration

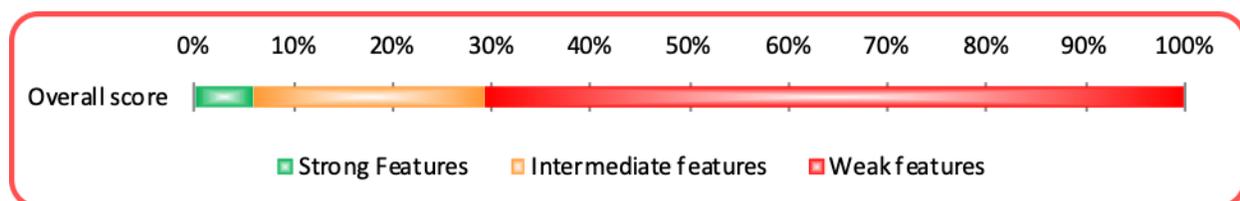


Figure 24. Moldova: Integration

5.9 MONITORING AND EVALUATION

Both Estonia and Moldova have national-level data on the SRH needs of young people, though the data in Estonia tend to be more thorough and up-to-date. SERAT includes four mechanisms through which information on SRH indicators should be collected: EMIS, demography and health surveys, M&E frameworks on HIV/AIDS, and school inspection tools. Neither program includes SRH elements in the national EMIS or school inspection tools. As for demography and health surveys, Estonia has administered several surveys that include data on school-based sexuality education, including the Youth Sexual Maturation Survey, the Comparative Survey on Human and Intimate Relationship, the Estonian Women’s Health Survey, and the HBSC Survey, among others. The two main nationally representative youth surveys in Moldova are the Multiple

Indicator Cluster Survey and the HBSC Survey, which do not contain nearly as many indicators related to youth SRH as those carried out in Estonia. Meanwhile, Estonia has published a country-level progress report on HIV/AIDS every year since 2014, and prior to that every other year. In contrast, the most recent HIV/AIDS report in Moldova was published in 2015, with indicators related to comprehensive knowledge and youth sexual behaviors most recently reported in the 2013 publication.

Additionally, there are national-level data on the coverage of school-based sexuality education in Estonia as well as the outcomes and impacts it has on young people, whereas in Moldova this information is unavailable. There are also no available data in Moldova on the cost of the sexuality education program for young people as there are in Estonia. These elements add to the strength of M&E in Estonia and elucidate the predominately weak features of the Moldovan program, as portrayed in Figures 25 and 26.

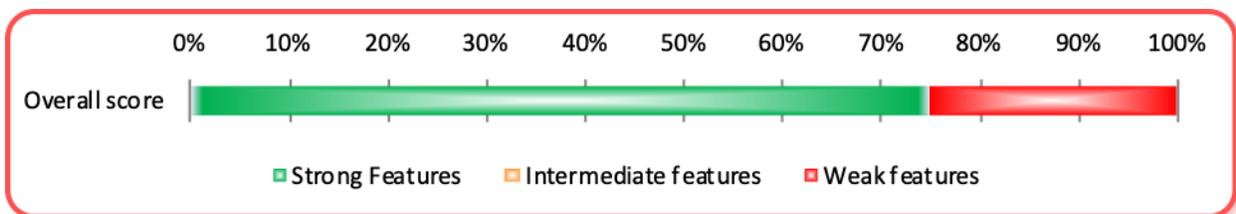


Figure 25. Estonia: Monitoring and evaluation

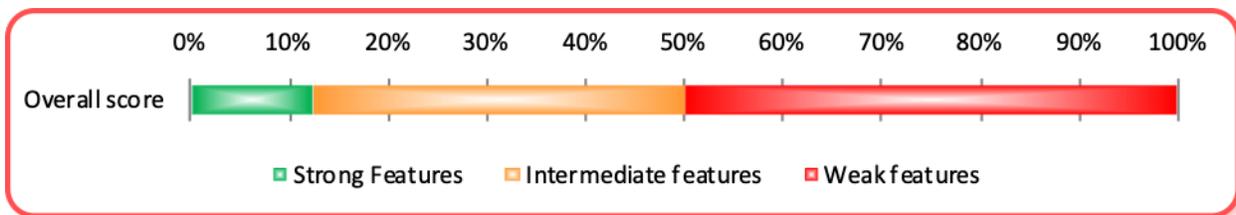


Figure 26. Moldova: Monitoring and evaluation

6.0 CONCLUSION

This thesis has outlined and addressed three fundamental questions. Firstly, it characterized present-day SRH outcomes among young people in Moldova and Estonia, finding that the SRH of Moldovan youth is far poorer than that of their Estonian counterparts across all major indicators. Secondly, it summarized the unequivocal importance of school-based sexuality education in ameliorating youth SRH and chronicled the historical trajectory of the sexuality education programs in Moldova and Estonia alongside trends in SRH outcomes among young people. While Estonia has been providing mandatory sexuality education in schools since the mid-1990s and has witnessed extraordinary improvements in youth SRH over the years, the majority of young people in Moldova do not receive adequate school-based sexuality education and have correspondingly experienced minimal improvements in SRH. Lastly, this thesis identified what Moldova can learn from Estonia's example in order to achieve greater advancements in youth SRH. Given the results of the comparative analysis of school-based sexuality education programs in these two post-Soviet countries, it is evident that the Estonian program significantly outperforms the Moldovan program across all internationally-accepted criteria. These data support previous findings detailing the strength of the Estonian program and the associated impact it has had in drastically improving youth SRH outcomes. They also reveal shortfalls in the Moldovan program, such as inadequate curriculum content, lack of teacher training, and a poorly established M&E plan, that have likely fueled continued negative SRH

outcomes among young people. In turn, this assessment provides indispensable information that can facilitate the effective revision of the school-based sexuality education program in Moldova and correspondingly generate more substantial positive changes in youth SRH outcomes, as experienced by regional counterpart Estonia over the past few decades.

6.1 LIMITATIONS

The comparative assessment of the two sexuality education programs has some notable limitations. Firstly, it is recommended that SERAT be completed through a participatory process with different stakeholders in order to minimize subjectivity and create opportunities for dialogue and collaboration. This analysis, however, was carried out by one external person with experience implementing the Moldovan curriculum and prior exposure to the Estonian curriculum. Thus, there is a possibility that some aspects of the programs may have been evaluated differently than if all relevant stakeholders had been consulted and included in the process. Secondly, only publicly accessible information published in the English and Romanian languages was considered in conducting the evaluation of the two programs. Though this likely captured all available material on the Moldovan program, there is a good chance it excluded some material published exclusively in the Estonian language. Thirdly, although SERAT is designed to be adapted to a variety of settings, not every component of the analysis may be applicable to the program being evaluated. This specifically relates to certain content requirements which were found to not be pertinent to the post-Soviet countries under question. Notwithstanding these limitations, the assessment has accomplished its intended objective by highlighting the major gaps that need to be addressed in the Moldovan program.

6.2 RECOMMENDATIONS

Before the MOE applies the results of the program evaluation in any way, it is imperative that all the relevant stakeholders in sexuality education are identified and engaged. In Moldova, this includes teachers, parents, students, religious leaders, pedagogical universities, health authorities, the YFHC network, UNFPA Moldova, and several NGOs (e.g. Y-PEER, the National Center for Prevention of Child Abuse, Gender-Center, ProDidactica, GENDERDOC-M), to name a few. The main concerns and interests of these individuals and organizations should be carefully taken into account throughout the revision process and, as indicated by international standards, should inform the elaboration of a detailed logic model, aligning all of the inputs, activities, outputs, outcomes, and impacts of the program. In turn, the logic model should guide the development and implementation of school-based and teacher training curricula as well as the M&E strategy.

In order to ensure that all elements of the sexuality education program in Moldova are coherent and effectively work together, the short- and long-term objectives first must be refined to more appropriately reflect the targeted behaviors and key public health indicators outlined in the SERAT analysis. Accordingly, these objectives should be clearly supported and reinforced throughout the curriculum. By restructuring the content to better promote critical behaviors such as the identification and avoidance of situations that could lead to unwanted or unprotected sexual intercourse, the utilization of condoms and other methods of contraception correctly and consistently, and the ability to seek out reproductive health services, corresponding reductions in unintended pregnancy, HIV, STIs, and gender-based violence are expected to occur among youth in Moldova. Moreover, these reductions can be accomplished only if these behaviors are promoted with a ubiquitous emphasis on social norms, gender equality, and human rights. By providing a more in-depth approach to these universal values, the curriculum will more

effectively promote concepts of fairness, respect, protection of bodily integrity, freedom from stigma and violence, assertive communication, and decision-making and relationship skills, among others. In addition, all three major domains of learning need to be fully integrated across all concept areas, with a particular focus on life skills development. Even if young people have acquired the knowledge and/or attitudes about a certain behavior, if they do not possess the appropriate skills, they will not have the capacity to perform the behavior and the respective impacts will not be attained.

Along with the revision of the curriculum content, it is crucial that the MOE and collaborating partners invest in the development and dissemination of student-oriented materials, such as textbooks and manuals, as well as materials for teachers, such as teaching guides, in order to improve the quality of instruction and comprehension of information presented during lessons. While notable costs are associated with these program elements, the country has managed to pull together resources and benefit from external support for such initiatives in the past. In fact, a prime example is the LSBE curriculum that was launched in 2005; the Soros Foundation and the United Nations International Children's Emergency Fund (UNICEF) helped facilitate the creation of manuals for the entire spectrum of lower and upper secondary school classes. Through a collective approach with a variety of domestic and international parties involved, the creation of such materials for the revised program should not be an issue. Furthermore, once the curriculum has been finalized, it should be piloted in a representative sample of schools around the country so that appropriate feedback can be obtained and applied prior to its official publication. In addition, as mandated by the Law on Reproductive Health, sexuality education must be made a compulsory subject and reach all primary and secondary school students.

Even with additional resources and an updated curriculum, educators cannot be expected to effectively teach sexuality education if they do not receive adequate training. Many of the same groups involved in the elaboration of the school curriculum should also be involved in developing a teacher training curriculum, such as experts in sexuality education and SRH, experts in methodology and pedagogy, and pedagogical universities, since the two curricula should complement one another. Pre-service training must be included in the professional preparation of all sexuality education teachers, thus ensuring a standardized, methodologically sound approach to the facilitation of school-based lessons. Nevertheless, it will be a few years before the first graduates who participate in pre-service training start working in schools. For this reason, in-service training is equally as important. In-service trainings should be offered periodically to all sexuality educators and can be both in-person as well as on internet platforms.

From the onset of school and teacher curriculum development, mechanisms for M&E of the sexuality education program must also be established. In this way, processes and activities can be documented from the very beginning and baseline data on students, teachers, and general program implementation can be collected. Some possible process indicators, for instance, may include the number of students who received sexuality education, number of teachers who underwent in-service training, and funding invested in program development. These carefully thought out indicators should be included in the national EMIS, demography and health surveys, and the M&E framework on HIV/AIDS, which require ongoing and up-to-date data collection.

Overall, the revision of the school-based sexuality education program in Moldova includes a multitude of components and necessitates a collaborative effort from a diverse group of key stakeholders. If Moldova is to attain the same successes achieved in Estonia, it must heed these recommendations and put them into practice. This is not only a vital step toward

ameliorating pertinent public health issues related to SRH that have a disproportionate impact on Moldovan youth compared to their European peers, but also has serious implications for improving other domains of youth well-being, such as education and employment. As a result, Moldovan youth will be better informed and prepared to maneuver various challenges and risks throughout their lives, in turn maximizing their future opportunities and opportunities for the country as a whole.

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