**2002/2003 INTERNATIONAL POLICY FELLOWSHIPS PROGRAM**

# INTEGRATING HIV/AIDS/STI EDUCATION PROGRAM
## in the SCHOOL CURRICULUM

**Research Paper**
**by**
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**This paper explores possibilities of integrating HIV/sex education into the school education framework. Various attributes of adolescents' vulnerability to HIV infection are discussed. The paper also looks at different aspects of AIDS education for young people based on both theoretical frameworks and models developed and widely used worldwide and on Armenian youth perspectives. After an overview of legislation, policies and programs in this field in a number of countries with effective school-based AIDS education programs, a current status of school health education policies in Armenia is presented. The paper also attempts to analyze important policy and institutional aspects that support or hinder the integration of HIV/STI prevention and health education into the schools in Armenia. For that purpose views and attitudes of a variety of stakeholders including policy makers at the top and executive levels, school teachers, and parents were investigated and are presented to a reader's review. Policy implications followed.**

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# 1. INTRODUCTION

The world has been challenged by the acquired immunodeficiency syndrome (AIDS) epidemic since 1981. Since then, human immunodeficiency virus (HIV) infection continues to affect people all over the world. HIV/AIDS is the fourth major cause of death worldwide (1). Eastern Europe has had experienced comparatively recent and rapid growth of HIV infection (2). In 2001, there were 250,000 newly registered HIV cases in this region, thus bringing the total number of people leaving with HIV/AIDS to 1 million (1). Among the former Soviet Union republics Russia and Ukraine are the most affected by the AIDS epidemic (2).

In Armenia, another former republic of the Soviet Union, there are a total of 210 officially registered HIV cases as of February 2003. The majority of HIV infected cases are males (78.8%) in their 20-39 years of age. From the total number of HIV registered cases, 50.4% acquired the virus through intravenous drug use, 39.5% trough sexual mode of transmission, followed by mother-to-child, blood transfusion and homosexual modes of transmission (1.1% each). The shift to the injection drug usage as a predominant mode of transmission has been observed in the recent years. In fact, until 1999 the number of HIV cases infected via sexual contacts exceeded the number of HIV cases who acquired infection through intravenous drug use, with the ratio being 41 to 22 respectively. From 1999 to February 2003, this ratio changed sharply to 41/85. The virus has developed into AIDS among 30 patients, 28 of whom have already died. However, it is believed that the actual HIV prevalence is much higher and is estimated to be around 1,900-2,000. (3)

Despite the fact that HIV/AIDS statistics in Armenia may pale compared to the extent of the epidemic in other countries in the region and elsewhere in the world, conditions are present in Armenia that contribute to vulnerability of the population to HIV infection. Following the collapse of the Soviet Union, the social and economic environment in Armenia has changed. These changes have resulted in a declined standard of living, growing deprivation, poverty, unemployment, and migration. In these circumstances factors increasing the likelihood of a rapid spread of HIV include lack of knowledge about HIV/STIs and their modes of transmission; liberalization of sexual behavior; high rate of sexually transmitted infections (STIs); prostitution; substance abuse, especially intravenous drug use; and labor migration to Russia and other nearby countries where HIV is spreading at a catastrophic rate. In fact, the majority of the infected intravenous drug users have contracted HIV-infection while being out of Armenia in search of work in different cities and districts of Russian Federation and Ukraine. (3)

Because HIV is transmitted primarily through behaviors that can be modified (unprotected sexual intercourse and intravenous drug use) educational programs designed to influence appropriate behavior can be effective in controlling the epidemic in Armenia. In the absence of a vaccine and cure for AIDS, educating people on how to protect themselves from becoming infected is the most potent strategy in preventing the spread of HIV (4). Young people deserve primarily attention in these educational efforts. According to UNAIDS (2001), young people (10 to 24 years) are estimated to account for up to 60% of all new HIV infections worldwide. In Armenia, the overwhelming majority of people registered with HIV/AIDS are young males aged between 20 and 39 years (3).

A variety of factors place young people at increased risk for HIV infection and, thus, call for early intervention. Puberty is a time of discovery, emerging feelings and exploration of new behaviors including engagement in unprotected sex, sex with multiple partners, and experimentation with substance use (alcohol, illicit drugs and other substances). It is usually easier to modify high-risk behaviors of young people through behavior change interventions before they reach their adulthood with already solidified patterns of behaviors (4). Furthermore, if HIV prevention in youth population fails, human and economic costs of adult AIDS cases will have devastating effect on economic, social, and even political stability of any developing country and Armenia in particularly. Thus, HIV/STI/sex educational programs targeting at young people are of paramount importance. Many young people can be easily reached through schools, since no other institution can contend in terms of youth population enrolled (4). In addition, no other setting can compete with schools in terms of access to youth, well-established educational traditions, and capacity to teach young people. Moreover, schools provide a channel to the community to introduce HIV prevention initiatives and advocate policies that lessen discrimination. It is therefore essential to integrate HIV/STI prevention and health promotion programs in the school settings.

This paper will explore various attributes of adolescents' vulnerability to HIV infection. It will look at different aspects of AIDS education for young people based on both theoretical frameworks and models developed and widely used worldwide and on Armenian youth perspectives. After an overview of legislation, policies and programs in this field in a number of countries with effective school-based AIDS education programs, a current status of school health education policies in Armenia will be presented. The paper will also attempt to analyze important policy and institutional aspects that support or hinder the integration of HIV/STI prevention and health education into the schools in Armenia.

## 2. WHY YOUNG PEOPLE ARE VULNERABLE TO HIV/AIDS?

Young people are specifically vulnerable to HIV/AIDS and other sexually transmitted infections because of their social, physical, emotional, and psychological characteristics. Adolescents are often engaged in risky behaviors, usually without understanding what the risks are. Risk-taking patterns of adolescents' behavior are distinguished by getting involved in risky sexual behavior, often combined with alcohol and drug use (5).

The majority of young people have inadequate knowledge about HIV/AIDS mainly because social policies, norms and expectations tend to limit youth access to health information, education, and care (6).

### Adolescent Behavior as a Factor for HIV/AIDS Vulnerability

Adolescents frequently demonstrate unpredictable behaviors (7, 8, 9). They often cannot fully apprehend risk-taking behaviors, especially the risks of getting HIV infection. Because of prolonged incubation period of HIV infection, lifelong consequences of risky behaviors are not obvious to young people.

Moreover, many adolescents have low awareness of constitutes of risky behavior including experimenting with tobacco, alcohol, sex, and drugs. Even if they understand the risks for HIV/AIDS in general, they consider themselves invulnerable. This "ignorance of risk" leads many young people to discount the danger of infection and therefore undertake no safety measures.

**Lack of knowledge about HIV/AIDS**

Although a need for education to prevent HIV/AIDS has been widely recognized, many adolescents have limited knowledge about HIV/AIDS and how to protect themselves and others from infection.

Some adults including parents, teachers, health care providers are concerned that providing sex education arouses curiosity and encourages early sexual activity. Therefore, educations programs often are limited in what information they can provide to adolescents.

**Lack of social and communication skills**

In addition to lack of knowledge about HIV/AIDS, many young people are often lack the social skills to protect themselves from HIV/AIDS (9, 10). Effective communication, negotiation, persuasion, and decision-making skills are to be taught to adolescents to enhance important areas of their development.

Often, young people do not believe that they are at risk of getting infected with HIV and other sexually transmitted infections. By denying their personal risk of HIV/AIDS they ignore AIDS-prevention messages, find them irrelevant, or think that they are not responsible for protection (10).

**Peer pressure**

Young people are very sensitive to peer opinion. Perceptions of what peers think often have a superior influence on sexual and other risk-taking behavior than the opinions and attitudes of parents and other adults (11).

**Social Discrimination**

In many societies young people are not treated with the same respect and do not share the same human rights as adults. Policies toward youth often reflect adult views of what young people should and should not be doing, not what young people really need. (12)

**Norms and Expectations**

Social norms and expectations concerning young people's behaviors contribute to their risk for HIV/AIDS. Some traditional cultural practices place additional risk. These practices and traditions affect young people more than adults - and affect girls even more than boys.

Often, double standards about sexual behavior exist (12). Virginity is the traditional norm for unmarried girls, while young men are allowed to seek sexual adventure. Being afraid to be accused in practicing sexual activity, many young women cannot directly ask for sex-related information (13).

**Poverty and Deprivation**

In a poor and deprived societies young people, and especially young women, are at greater risk. Adolescent girls from poor and insecure families are more likely than girls from better family environments to have been involved in sexual practices (12).

In many countries young women, in a search of earning for life, trade sex to older men and thus increase their risk of contracting HIV infection.

# 3. AIDS EDUCATION AND YOUNG PEOPLE

### 3.1 Comprehensive School Health Education

One of the important tasks of World Health Organization (WHO) has been promoting the health of children through schools. In 1950, the Expert Committee on School Health Services set the first theoretical basis for rigorous worldwide action. The findings of the international consultation on health learning held in 1986, were published by WHO and UNICEF in a report entitled “Helping a Billion Children to Learn About Health”. In November 1991, WHO in cooperation with UNICEF and UNESCO has assembled joint meeting to set up a common understanding of comprehensive school health education and to outline implementation actions for countries. According to WHO's contemporary perspective, today school health programs are one of the essential factors for realizing Health For All.

Launched in 1995, the WHO’s Global School Health Initiative is aimed to activate and strengthen health promotion and education activities at the local, national, and global levels. The Initiative’s goal is to increase the number of schools that can be called "Health-Promoting Schools". A Health-Promoting School is a school that continuously strengthens its capacity to be “a healthy setting for living, learning and working”. In summary, a Health-Promoting School (14):

- attempts to improve the health of school personnel, families and community members as well as students;
- encourages health and learning with all the measures;
- engages health and education officials, teachers and teacher organizations, students, parents and community representatives in attempts to make the school a healthy place;
- tries to provide a healthy environment, school health education and health services, health promotion programs for staff, nutrition and food safety programs, physical education, and counseling, social support and mental health promotion;
- implements policies and practices that respect an individual's self-esteem, provide various opportunities for success and encourage good efforts and intentions as well as acknowledge individual achievements.

The Global School Health Initiative consists of four major categories including building capacity to advocate for improved school health programs, creating networks and alliances for the development of Health-Promoting Schools, strengthening national capacities, and research to improve school health programs. WHO provides technical support and consultations to different countries helping create Health-Promoting Schools. One of the important components of Health-Promoting Schools is development and establishment of a comprehensive school health education program. (14)

Comprehensive school health education is a sequential curriculum delivered by qualified specialists to promote the development of health knowledge, health-related skills, and attitudes toward health and well-being for pupils in pre-school through high school (15).

According to the Centers for Disease Control and Prevention's (CDC) definition, comprehensive health education includes the following key elements:

1. A documented, planned, and sequential program of health instruction for students in grades kindergarten through twelve.
2. A curriculum that addresses and integrates education about a range of health problems and issues at developmentally appropriate ages.
3. Activities that help young people develop the skills they need to avoid: tobacco use; dietary patterns that contribute to disease; sedentary lifestyle; sexual behaviors that result in HIV infection, other STDs and unintended pregnancy; alcohol and other drug use; and behaviors that result in unintentional and intentional injuries.
4. Instruction provided for a prescribed amount of time at each grade level.
5. Management and coordination by an education professional trained to implement the program.
6. Instruction from teachers who are trained to teach the subject.
7. Involvement of parents, health professionals, and other concerned community members.
8. Periodic evaluation, updating, and improvement.

The following areas are recommended to be included in comprehensive school health program: community health, environmental health, family life, mental and emotional health, nutrition, personal health, chronic and infectious disease prevention and control, safety and accident prevention, and substance use and abuse (Joint Committee on Health, 1990; Joint Committee of the Association, 1992). Each country should shape its own health policies and curriculum to reflect specific local needs, interests, and cultural and ethnic diversity.

### 3.2 AIDS Education as a component of a comprehensive school health education

One of the important responsibilities of Health-Promoting Schools is to prevent HIV/AIDS/STI and related discrimination (16). Schools must admit the responsibility to educate community members and work with them to determine the most appropriate and effective ways to prevent HIV infection among young people (16). Without educating school students about HIV/AIDS, comprehensive approach to school health education is laid on the line.

In 2001, member states at the United Nations General Assembly Special Session on AIDS decided to "ensure that by 2005, at least 90% of young men and women aged 15 to 24 have access to the information and education necessary to develop the life skills required to reduce their vulnerability to HIV infection" (4).

Traditionally, schools are the institutes that replicate society. The success of efforts to prevent HIV/AIDS depends on support and commitment of policy makers and society in general. Involving and rising awareness of political leaders and community members about health promotion role of schools can ensure their acknowledgment of the importance of HIV/STI prevention. Developing a set of policies supporting effective implementation of school-based HIV/AIDS education is essential. These policies provide guidelines for action that school principals, teachers, and other educators can follow while addressing HIV/AIDS education.

However, there has been and continues to be substantial debates over HIV/AIDS education including what to teach, at what age, in what setting, by whom, and to what extend. Political and societal realities in a particular country often may limit people's ability to provide young people with comprehensive sex education (and thus HIV/AIDS education) in schools. Even where there is a strong national devotion to address the AIDS, sensitivities about sexuality issues often hinder AIDS education (17).

The terms health education, sexuality education, and HIV/AIDS education are often used interchangeably. However, it is important to make a clear distinction between sexuality education, health education, and HIV/AIDS education.

Implementing quality sexuality education in the public schools has always been a struggle worldwide (17). Moreover, what has been named sexuality education has often been shifted toward the “safe” and less sensitive topics of anatomy and physiology of the reproductive system, pregnancy, and childbirth. Truly comprehensive health education is when students not only receive information but also have the opportunity to test how their attitudes and beliefs affect their behavior (16). It is also about developing adolescent's skills so that they can make informed choices about their behavior, and feel confident and competent in their actions.

Indeed, knowledge alone is not enough to change behavior. Young people need skills to put what they learn into practice. If education is going to be effective it needs to provide opportunities for young people to develop skills in negotiation, decision-making and communication (unicef.org).

Important components of sexuality/AIDS education for young people include topics on sexual development, reproduction, contraception, and relationships (18). Adolescents should receive information about physical and emotional changes associated with puberty and reproduction, about conception and sexually transmitted infections including HIV/AIDS. With regards to relationships and gender issues to be taught, young people need to know about love and commitment, marriage and the related laws, as well as cultural views and attitudes about sexuality, and moral and social issues. In addition, they should learn how to decide what positive relations are, how to resist pressure from peers and other people. (18)

It is also important not to delay providing sexuality/AIDS education. At the International AIDS Conference in Durban in 2000 it was recommended to start HIV/AIDS education at an early age, before some begin to drop out of school or engage in sexual practices. Sex education works when it is started before young people reach puberty and before they establish solidified patterns of behavior (19, 20, 21). In addition, the information provided should be age-appropriate and serve as a basis on which more complex knowledge and skills are build upon over time (20).

In addition, sexuality education should be sustainable. As it is stated in one of the WHO's Information Series on School Health, HIV/STI prevention education should be combined with education about *life skills, reproductive health and substance abuse* so that learning experiences will harmonize and strengthen each other.

Involvement of young people themselves in developing HIV/AIDS sex education can insure the relevance and accessibility of such programs (21). It is essential to find out what adolescents already know and what they would like to know about HIV/AIDS, their beliefs, attitudes, and misconceptions about HIV/AIDS prior to beginning HIV/STI prevention education in schools.

It is well known that adolescents get more of their sexual knowledge from their peers and often encourage each other to engage in risky behaviors. In order to channel this influence to a positive side, many AIDS education strategies now use peer education programs as a key approach (22). Peer educators can serve as positive role models for changing risky behavior. They can communicate preventive messages and skills in a more informal way and in a less "sensitive" atmosphere. However, peer educators need to be trained appropriately to effectively disseminate knowledge as well as they need skills in counseling, persuasion, empathy, and assertiveness.

Teachers have an important role in risky-behaviors preventive education. Being role models for their students, teachers themselves need adequate and ongoing training in health education including sexuality and HIV/AIDS education. However, historically it is a matter of debate whether schools should avoid teaching controversial subjects or not. According to the US survey data, few health education teachers are required to take a course on sexuality and HIV/AIDS education and how to teach these subjects (23). In addition, teachers have discomfort with talking about sensitive topics, and they report experiencing anxiety and tension about discussing such issues with their students. WHO recommends providing pre- and in-service training for teachers in interactive and participatory teaching methods to address teacher's fears and indecisiveness. Research data shows, that active teaching techniques such as small-group discussions, role-plays and question-answer sessions rather than lecturing have a positive effect. (23)

Involving parents and families in HIV/AIDS prevention and education activities strengthen and support school efforts to promote healthy life style. There is no doubt that parents influence to a great extent their children's health behavior. Adolescents are most likely to adopt healthy behaviors if they receive consistent information from different sources, such as peers, parents, teachers, and school in general. (21) WHO Information Series on School Health promotion acknowledges school and family engagement in promoting healthy behaviors and considers both approaches complementary and integrated. At home, young people can have discussions with parents about specific issues and concerns. They involve a lot of interactions and dialogues over

a long period of time and can be focused on specific issues that are of concern to youth. In school, interactions between the teacher and youth take place in a form of separate lectures and cannot always be suited and adjusted to the particular needs and concerns of young people. Schools usually provide a bulk of necessary knowledge and develop skills, which maybe detached from an individual needs and concerns. Many parents, however, feel embarrassed about discussing some aspects of sex and sexuality. Establishment of sound relationships between parents and children is an important basis for young people to feel able to ask questions and discuss issues as they arise. (24)

### 3.3 Effective School-Based HIV/AIDS and Sexuality Education: Experience of western countries

This section reviews experience and practices of a number of countries in initiating school health education policies and programs to educate young people about HIV/AIDS. The section will also summarize key features of school-based AIDS education programs proven effective in preventing the spread of HIV infection.

According to sex education legislation in Great Britain, sex education has been a compulsory component of the curriculum in secondary schools since 1993. The governing bodies of individual schools are free to decide, in consultation with parents, what pupils should be taught.

Education Act 1996 Section 352 (3a) defines sex education as specifically including information about AIDS and HIV and other sexually transmitted diseases. Section 371 (a-b) states that the governing bodies of schools decide (bearing in mind the Education Act's policy statement) whether sex education should be part of the school's secular curriculum. They are also required to keep an up-to-date statement of their sex education policy. This should include information on the content of sex education and where in the curriculum it takes place.

Clause 17 of the Learning and Skills Bill 2000, which updates and amends Education Act 1996, states that local education authorities no longer have any responsibility for sex education in maintained schools; this now rests with the school's governing body and head teacher. The Secretary of State for Education is now required to issue guidance on the delivery of sex education in schools. The guidance must ensure that when pupils receive sex education in schools they learn about the nature of marriage and its importance for family life and the raising of children. Also pupils are to be protected from teaching materials that would be considered inappropriate when bearing in mind the age, religion and culture of the pupils (Clause 4 (1A)). In addition, Section 403 (1) declares that sex education should be provided in such a way that it encourages "…pupils to have due regard to moral considerations and family life."

In the Netherlands, up to 1987 AIDS information and prevention policies were implemented in the form of activities aimed at informing groups at high risk, especially homosexual men. From 1987 a number of public campaigns were launched to inform young people about AIDS. Also, efforts were given to introducing AIDS education in secondary schools. The key points of AIDS education curricula were that: 1) AIDS education should be build in general health and sex education; 2) AIDS education should provide not merely biomedical knowledge, but also address

attitudes and social skills; 3) AIDS education should be appropriate to student's development and experience; 4) AIDS education should prevent stigmatization of people leaving with HIV/AIDS; and 5) AIDS education should be provided by skilled teachers. The first national AIDS prevention curriculum became available in 1988. In 1989 additional changes were incorporated in the AIDS curricula. While the first-generation AIDS prevention curricula primarily provide knowledge about AIDS, a second-generation curriculum also addressed norms, values, and skills. The primary focus of it was on active methods of learning. In 1990 the government agencies introduced improved third-generation curricula, which was based on empirical data about AIDS-related attitudes, beliefs and behaviors of young people; grounded in theoretical models from behavioral sciences; was carefully evaluated; and was developed jointly with students and teachers. (25) This curricula was based on a planned development process.

In the United States, health promotion has been included in formal education since 1918. Since that time the role of school health education in providing full life of citizens and in achieving other educational goals was regarded as important by the leading educational groups. In 1981, the Education Commission of the States stated that school health education should "be planned by both school and community; demonstrate scope, sequence, progression, and continuity, be taught by teachers trained in health education be designed to develop critical thinking and individual responsibility for one's health…". Since 1988, the Centers for Diseases Control and Prevention (CDC) provided financial and technical support to state and local educational agencies and health and education organizations to improve HIV education in schools. In 1990, CDC developed operational definition of school health education. In 1995, the Joint Committee on National Health Education Standards introduced standards specifying what students should know and be able to do in health education. These standards serve as a framework for including health knowledge and skills into school curricula as the level of state and local levels.

However, while laws and policies in each of the above-discussed countries specified required scope and topics of school health education, literature review showed that the extent of sex and HIV/AIDS education is not always in compliance with the state regulations.
For example, the results of the "Survey of Sex Education Provision in Secondary Schools", conducted among Britain's pupils aged 14 and 15, showed that for more than half young people, sex education will not include any noteworthy reference to sexual intercourse. Britain researchers warn that thousands of young people are risking unplanned pregnancy and HIV because of poor sex education. Teenage pregnancies in the UK have risen drastically in a decade and are the highest in Europe.

With regards to sex education provided in Britannia schools, it was found that many schools are not providing even the most basic topics such as puberty. While 97% of schools offer information on sexually transmitted infections, 12% of young people do not receive sex education. The research also revealed gaps in empowering pupils with the skills they need to be able to decide whether to have sex and how to say no. Few schools teach pupils how to "negotiate about relationships" and only 42% advise them on how to talk about sex-related issues.

Despite the fact that in the US many states not only recommend but also mandate HIV/AIDS prevention curricula, a number of studies have shown that state requirements are not always

followed by the US school districts. Surveys among a national probability sample of school districts revealed that at least one-third of school districts do not require HIV education. The most striking finding was that these requirements dropped from grades 7 to 12, when students are more likely to engage in high-risk behaviors. (26)

With regards to topics covered, the School Health Policies and Programs Study in 1994 found that more than half of health education teachers teach all but one of 17 topics about HIV/AIDS included in a questionnaire. The only topic that was taught by only 37.1% of teachers, was correct use of condoms. (27)

However, in general, the controversies about sexuality and HIV education do not focus on whether these programs should be taught in schools but rather on what topics should be covered. Some believe that only abstinence until marriage should be stressed, while others think that contraception and other sexuality-related topics should be covered.

A number of education policies and programs to prevent HIV/AIDS have been identified, analyzed, and found effective. It should be noted, that all evaluations of programs showed that these programs increase students knowledge about different aspects of sexuality and how to protect themselves from getting HIV infection. Although this knowledge may or may not bring to changes in risk-taking behaviors, it helps build a basis for making safer decisions. Review and assessment of numerous studies of the effectiveness of programs to prevent HIV infection among young people showed that sex education programs do not lead to earlier initiation of sexual activity, do not increase the frequency of sex, and do not increase the number of sex partners among adolescents. In fact, some programs that included discussion of contraception delayed the onset of sexual activity and increased the likelihood of condom use (19, 20, 21).

These studies raise important questions. What curricula are the most effective in changing risk-taking behaviors and what are their characteristics? In summary, effective school education programs target the following key elements:

1. An important first step in developing school-based AIDS education program

4. School-based AIDS education programs should be designed to be developmentally appropriate and should address specific needs and lifestyles of adolescents. Data from a study conducted in the US on School Health Education Evaluation show that adolescents' participation in development of education curricula leads to increase in their knowledge, attitudes, and risk-avoiding behaviors.
5. The content of AIDS education programs should be based on most updated medical information about HIV/AIDS in order to achieve maximum effectiveness. Essentially, a curriculum should include information about the cause, acquisition, and prevention of HIV/AIDS. Knowledge on how to prevent becoming infected with HIV is also of a great importance. Moreover, education program should dispel myths and misconceptions about HIV acquisition, as well as provide training in healthy decision-making skills.
6. In addition to didactic instruction, AIDS education programs should use communication tools including role playing, group interactions to facilitate discussion of sensitive topics, use of video-taped materials to ease the process of understanding and learning, and help them to personalize the information. The programs should provide opportunities to practice communication, negotiation, and assertion skills.
7. Preparation of education personnel and teacher education are other essential components of AIDS education programs in schools. It is vital that school administrators, school physicians and nurses, teachers and other relevant educational support personnel receive broad-spectrum training about the nature of AIDS epidemic and the tools of restraining its dissemination, the role of the school in providing education to prevent HIV/AIDS, methods and materials to deliver effective AIDS education programs, and school policies.
8. Teachers delivering AIDS education should receive special and continuing education on a) active teaching methods, b) how to implement curricula, c) how to establish rapport with kids, d) how to develop skills of being non-judgmental, e) confidentiality, f) how to facilitate communication with the kids.
9. In order to ensure that school-based HIV/AIDS prevention efforts are consistent with parental values, it is necessary to involve parents in all steps of development of school education polices and programs. As the US experience shows schools benefit by having parental input and support. Parents and community members also benefit by gaining new health information and skills, and taking part in their children's education.
10. Among limitations of school-based AIDS education programs are their short duration, teaching the issues at higher grade levels only, and existence of social and political pressure on delivery of more explicit HIV prevention programs including information on condom use should be mentioned.

### 3.4 HIV/AIDS and Sexuality Education in the Context of Armenia

Health education including education about HIV and other sexually transmitted infections, modes of their transmission and means of prevention as well as information on the harm of intravenous drug use is not included in the school education programs in Armenia. There is a persistent belief shared by many government officials and society members as well that sex education itself will entice our adolescents into sexual activity. It follows that schools and other educational and health facilities would better remain dormant about this topic or introduce sexuality in a context of fear and danger.

Historically, sexual abstinence, virginity, taboos on premarital sex and sex outside of marriage have been widely encouraged and promoted as a traditional cultural norms of Armenian society. This approach in its pure context is of necessity and should be integrated in the programs aimed at adolescents' education. At the same time, nowadays young Armenians are getting confused messages and are faced with double standards calling for virginity in females but allowing early sexual activity in males. Youth are also exposed to positive images of sex, smoking, and drinking through the media, advertisements, and movies. This massive flow of "information" coming through our liberalized television and other mass media is readily absorbed by our adolescents since it fills in gaps about and satisfy their demands for sex information, acceptable behavior standards and role models, and appropriate gender and peer relations. Whether there is a demand for such information is no longer a question.

Resistance to promote in schools anything but sexual abstinence is also based on the argument expressed by parents and other adults that "when the time comes, our children will learn everything about this issue by themselves". This ambivalent and meager approach to sex education in schools, however, has not discouraged Armenian youth from engaging in sexual behaviors. Indeed, in a sample of 442 university students (aged 17-21), 78% of the males and 7% of the females reported being sexually active, with an average age of the first sexual intercourse around 15-16 years (28). Increase in a number of sexual partners is an important risk factor for HIV infection. Among sexually active male students the average number of lifetime sexual partners was 7.3 compared to 1.3 for females (28).

Another indicator of high-risk behavior among Armenian youth is an increase in the rates of sexually transmitted infections they contact, which is highly correlated with the increase in the number of young females involved in commercial sex work (CSW) (29).

Young people also are at risk of becoming infected with HIV through substance use, especially intravenous drug use. Findings from the study among Armenian students indicated that 11% of males and 0.5% of females have ever used drugs including hashish, marijuana, opium, and cocaine (30). The National Rapid Assessment survey conducted in 2000 revealed that there were between 19,000 to 23,000 current drug users in Armenia, 10% of whom were injecting drug users, and the majority (56%) of drug users were young men in the 19 to 30 age group. HIV incidence rate in this population was found to be 5.8% (30).

Although Armenian youth are at risk of becoming infected with and transmitting HIV as they become sexually active, several studies showed that they do not perceive themselves to be at risk (28, 30, 31). This denial of the risk coupled with the engagement in casual sexual contacts and inconsistent use of condoms were found to be quite common in Armenian youth (28, 33). At the same time, the findings from these studies suggest that although young people demonstrated a reasonable understanding of the risk factors associated with HIV acquisition, their knowledge about transmission modes of HIV and other STIs as well as a general concept of sexual and reproductive health were still poor (28, 30, 31,32). Furthermore, when asked about the main source of information about HIV/AIDS/sex, an overwhelming majority mentioned television and radio. School as a source of information on these topics was reported only by 37% of the young people surveyed in 2000. (28)

# 4. SCHOOL HEALTH EDUCATION IN ARMENIA

## 4.1 School Health Education Policies in Armenia: Current Status and Future Perspectives

### 4.1.1 School health education policies in Armenia

In general, there are a very few laws and regulations concerning school health education in Armenia. More specifically, there are several articles addressing school health education in the Law of the Republic of Armenia (RA) "About Education", one article in the Law of RA about "Health Care Provision", Newly Independent States Member States Response Program to HIV/AIDS epidemic, as well as state standards for secondary school education, adopted by the government of RA.

Each of these documents discusses goals and objectives of school health education and education requirements for elementary, middle, and high schools.

Clause 18, point 5 of the Law of Republic of Armenia "About Education" says that education in the middle school is aimed to provide minimum necessary knowledge about healthy lifestyle, environment protection and world learning, and skills necessary for individual work and learning".

It is worthy to note that laws and regulations not in a straight line with provision of educational services are less conservative in their approaches to sexuality-related education. In fact, article 19 of the Law of RA about "Health Care Provision", adopted by the government in 1996, touches upon health education: "Everybody, including adolescents has a right to information necessary for protection of his/her own sexual health, as well as information about sexually transmitted infections, their complications, and consequences". Also, paragraph 7 of the resolution of NIS Member States, signed off on May 30, 2002 by NIS member countries including Armenia, states that during 2003-2004 in all institutions of educational system there should be introduced differential programs aimed at development of adolescents' healthy life style skills, educating them about how to protect from HIV/AIDS, and development of negative attitudes to drug use. The Governments of NIS member states are to be responsible for implementation of the Response Program to HIV/AIDS epidemic during 2002-2003.

At the same time, state education policies alertly avoid inclusion of any "sensitive" health topics in the required school curricula. The range of "acceptable" health education topics is delineated by the state standards for secondary education, adopted by the government of RA on May 8, 2000, (order No 226). According to these standards, a secondary school graduate should:

- know essential processes of human biology and try to ensure a healthy lifestyle (education standards for "Biology" subject)
- have knowledge about personal hygiene, sleep, diet, learning, and rest (standards for Physical Education).

### 4.1.2 Development of school health education programs

Education system in Armenia has undergone major changes since the collapse of the Soviet system. Sharp decrease in the government annual per child expenditures led to a universal decline in quality of education, accessibility and demand throughout the education system. Changes in the society affected the system of education, bringing forth the need for recurring reform aimed at changes in school management, funding as well as curriculum.

To address some weaknesses in the existing curriculum and teaching methods, in 1998 the Ministry of Education and Science in collaboration with UNICEF (agreement 99/22) and the International Institute of Global Education (IIGE) of the University of Toronto, Canada introduced Life Skills into the core curriculum.

Nevertheless, the implementation of this project was driven not only because of urgently needed educational reforms and changes, but also due to its relevance to current social, political, economical and cultural realities and challenges.

Responsibilities for implementation and financial management of the project has been assigned to the Center for Educational Reforms of the MOE, according to the MOE order No.397-M of November 22, 1999.

On September 1, 1999, the "Life Skills" Pilot Project was launched in 1$^{st}$ and 5$^{th}$ grade of 16 schools throughout Armenia. These schools had been specially chosen, including equal numbers of schools from Yerevan and provinces.

During 2000-2001 the project was continued in grades 1, 2, 5, and 6 in the selected 16 schools, and it was launched in 1$^{st}$ and 6$^{th}$ grades of 90 new schools. During 2001-2002 the project was continued in grades 1 though 3 and 5 through 7 in the selected 16 schools, in grades 1, 2, 5, and 6 in the selected 90 schools, and it was launched in grades 1 and 5 in 50 newly selected schools.

To date, teacher manuals for teaching *Life skills* program in grades 1, 2, 5, 6 are already published. Teacher manuals for 3$^{rd}$ and 7$^{th}$ grades were pre-tested and need to be revised before submission for final production. The *Life Skills* program has been introduced in about 200 schools throughout Armenia.

The system of student evaluation will be developed in 2002.

The goal of the *Life Skills* program is to provide students with the skills enabling them

- to take active civil position, patriotism, and cultural and common wealth values
- to make decisions, solve problems and effectively communicate
- to adjust to and act in non-standard situations
- to adjust to constantly changing environment
- to master basics in day-to-day activities, personal hygiene and healthy life style

**The role of the family in determining the content of health education**

In general, family participation in school life is very limited. There are no well-defined mechanisms to involve parents and other caretakers into policy discussions. Some pilot projects attempts to work with families empowering and encouraging them to take more active part in decisions affecting their children. Significant part of the current reforms in education is devoted to family participation component.

**Organization and coordination of health education in schools**

In general, school administration including school principal and director of studies is responsible for organization and coordination of health education activities and services in schools in Armenia.

**Topics included in health education instruction**

Health education as a separate topic is not taught in schools in Armenia. As *Life Skills* subject has been introduced in pilot schools, Armenian students happened to be exposed to several elements of health education instruction.

The aim of teaching this subject in the school is to make students acquainted with the philosophy of life skills and help them develop the following skills:

1. Decision-making
2. Problem solving
3. Critical thinking
4. Creative thinking
5. Communication
6. Interpersonal relationships
7. Self- learning
8. Participation
9. Managing emotions
10. Stress management

Teaching Life skills subject in school begins from grade 1 and continues trough grade 7. In each grade students are to receive 1-hour instruction a week throughout a school year. Life skills subject is divided into 4 major areas including:

1. About myself
2. Relationships
3. Society
4. Environment

Teaching about these areas is continued throughout all seven grades and spirally repeated, each year adding up a higher level and acquiring in-depth and complexity according to students' age and developmental peculiarities.

Table 1 summarizes health education topics included in school health education instruction in Armenia, grades in which health topics are taught, and to what extent and how detailed and adequate the topics are discussed in elementary and middle school.

**Table 1. Health education topics included in school health instruction in Armenia, 2002**

| N | Health Education Topic | Lesson number and topic | Objective | Grades (School level) |
|---|---|---|---|---|
| **1.** | **Who am I?** | **Lesson No 7:** Recognizing my body | Help students expand ideas and knowledge about his/her body, its parts and physical characteristics | Grade 1 (elementary school) |
| | | **Lesson No 8:** Recognizing my five senses | Get students acquainted with the functioning of all the five senses and make them understand that perception of subjects and phenomena is complete and sound due to inter-coordinated functioning of all the senses | |
| **2.** | **Everyday cleaning and personal hygiene** | **Lesson No 1:** My body | Expand students' perceptions about own body | Grade 2 (elementary school) |
| | | **Lesson No 2:** My body-2 | Help understand that human body is a balanced system of a variety of working pieces | |
| | | **Lesson No 3:** Personal hygiene | Underline the importance of and enhance student's knowledge about cleaning and personal hygiene. Promote an idea that clean lifestyle should become a credo. | |
| | | **Lesson No 4:** Healthy environment | Help understanding that clean environment is a basis for good health | Grade 2 (elementary school) |
| | | **Lesson No 5:** Everyday cleaning | Help understanding that clean lifestyle protects from infections. Strengthen and enhance children's perceptions about hygiene and clean lifestyle. | |
| | | **Lesson No 6:** Healthy environment | Help understanding that food and water is vital for living organisms. Provide information about different food products and their role for human body. | |
| | | **Lesson No 7:** Healthy and safe | Remind and reinforce what was learned about topics, "Avoid risk" and "Healthy lifestyle". | |

| N | Health Education Topic | Lesson number and topic | Objective | Grades (School level) |
|---|---|---|---|---|
| 3. | **Healthy Lifestyle** | **Lesson No 1:** Welcome, health! | Create pleasant and friendly environment for effective work in the future. Help understanding basic constitutes essential for being healthy. | Grade 3 (elementary school) |
| | | **Lesson No 2:** Healthy class | Promote perception of individual and collective responsibility for staying healthy | |
| | | **Lesson No 3:** What are the food components? | Provide information about micronutrients and other nutrients | |
| | | **Lesson No 4:** My first recipe | Encourage management of the received information | |
| | | **Lesson No 5:** Nutrients we need | Introduce important nutrients in the human body stressing the role of each component | |
| | | **Lesson No 6:** Hazardous food | Help students understand that food can be dangerous and introduce students to methods of avoiding hazardous food. | |
| | | **Lesson No 7:** Hygiene | Strengthen students' knowledge about clean and healthy lifestyle and help them develop responsible attitude towards their own health | |
| | | **Lesson No 8:** We exercise and, thus, we are healthy! | Help to find various pleasant ways to work up and strengthen the body | |
| 4. | **How to organize my life** | **Lesson No 2:** How to organize my life ("Day regimen" exercise) | Develop in children time management skills, promote necessity to effectively manage time, and develop skills to differentiate important things from less important ones | Grade 5 (middle school) |
| | | **Lesson No 8:** How to say "No" (Smoke or do not smoke? exercise) | Develop skills to act independently and to express and justify personal opinion | |

| N | Health Education Topic | Lesson number and topic | Objective | Grades (School level) |
|---|---|---|---|---|
| **5.** | **Learn thinking; solving problems in a team** | **Lesson No 7:** Think by yourself | Stimulate independent thinking, ability to say "no" | Grade 6 (middle school) |
| **6.** | **Healthy lifestyle** | **Lesson No 1:** What is health? | Teach about health concept and healthy lifestyle principle | Grade 7 (middle school) |
| | | **Lesson No 2:** Healthy lifestyle | Teach what is habit, help recognize negative consequences of some habits, and how to find ways to overcome these habits | |
| | | **Lesson No 3:** Orientation | Develop negative attitude towards use of alcohol, drugs, smoking and stress the importance to fight against them | |
| | | **Lesson No 4:** Diseases | Help classify diseases based on their ways of transmission. Emphasize and differentiate prevention measures to avoid these diseases. | |
| | | **Lesson No 5:** Spread of infection | Present in a visual way chain transmission character of HIV infection | |
| | | **Lesson No 6:** Risks of infection | Delineate different modes of HIV transmission | |
| | | **Lesson No 7:** Participation | Develop tolerant attitude towards people leaving with HIV/AIDS | |

# 5. VIEWS AND ATTITUDES OF POLICY MAKERS REGARDING HIV/AIDS EDUCATION IN SCHOOLS

## 5.1 In-Depth Interviews with Policy-Makers

A number of in-depth interviews were conducted with policy makers working on top and executive levels within the Ministry of Education and Science (MOES) in order to explore their views and attitudes regarding the necessity of and obstacles to introducing AIDS education in schools, assess the extent of their support in and the possibilities of adopting legislative changes in the existing school policies, and identify collaboration areas among representatives of different government bodies and non-governmental groups.

The research team conducted a total of 10 in-depth interviews with policy makers including chief specialists and the head of Education Department at the MOES and school principals working in schools located in Yerevan and in 4 regions of Armenia (Armavir, Kotayk, Aragatsotn, and Ararat). (Table 2). The interviewees were selected based on their position or through convenience sampling (for school principals).

**Table 2. The distribution and number of in-depth interviews by regions of Armenia**

| | Region | | | | |
|---|---|---|---|---|---|
| **Policy makers** | Yerevan | Ararat | Aragatsotn | Armavir | Kotayk |
| MOES | 2 | | | | |
| School principals | 4 | 1 | 1 | 1 | 1 |

The in-depth interview guides were developed in collaboration with mentors and based on literature review and were adapted for use in Armenia. The guides were developed in English and translated into Armenian and Russian by the research team. The guides were pre-tested in Yerevan and revised accordingly. The final versions of the in-depth interview guide for top policy makers and the in-depth interview guide for school principals were approved by the mentors.

The interview guides for top policy makers and for school principals were slightly different in their content, semi-structured and contained 17 and 20 open-ended questions respectively, and required about 60 minutes to administer. Interviews were mainly conducted in Armenian. However, for the cases when the interviewees expressed a preference for Russian, interviews were administered in Russian. The content of the interviews and non-verbal expressions of the informants were thoroughly recorded. The interviews were recorded on audiocassettes after verbal informed consent was obtained from the interviewees. All interviewees received small incentives for their participation.

***Instrument content***

The content of the instruments for top policy makers and for school principals was similar in main themes with minor variations. In addition to general themes discussed with school principals, the focus of the guide developed for in-depth interviews with top policy makers was oriented toward legislative changes.

The guide developed for top policy makers was aimed to obtain information regarding the following topics:

- Perception of the HIV/AIDS problem in Armenia
- Necessity of implementation of HIV/AIDS education in schools
- Necessity of changes to be made in the current laws, regulations, and policy documents and possible support to them
- Participation in introducing policy changes
- Anticipated obstacles in introducing HIV/AIDS education in schools
- Role of multiple governmental sectors and collaboration areas between them

- Role of NGOs and society participation in HIV/AIDS school education policy development
- Form and ways of delivery of HIV education
- Issues to be addressed by HIV/AIDS education
- Necessity of parental permission for students' participation in HIV education classes.

The following issues were addressed by the guide developed for school principals:

- Perception of the HIV/AIDS problem in Armenia
- Opinion about youth's risk for contracting HIV/AIDS
- Current sex education practices in school
- Necessity of implementation of HIV/AIDS education in schools
- Necessity of laws, regulations, and policy documents to introduce effective HIV education programs
- Opinion of improving school administration knowledge of HIV/AIDS
- Anticipated obstacles in introducing HIV/AIDS education in schools
- Society participation in HIV/AIDS school education programs development
- Capacity of the national schools to introduce HIV education in schools
- Capacity of the national schools to train parents about HIV/AIDS
- Anticipated support for effective introduction of HIV education into school
- Form and ways of delivery of HIV education
- Issues to be addressed by HIV/AIDS education
- Necessity of parental permission for students' participation in HIV education classes.
- Alternatives to school HIV/AIDS education

***Data Analysis***

Detailed interviews were transcribed and translated into English. Expanded notes were translated into a word-processing format. The preliminary analysis sought to identify major themes and facilitate the preparation of initial summaries. Based upon the preliminary analysis, a more detailed coding system was developed and applied to the data in order to address the research questions.

***Findings***

The findings are presented separately for each target group (top policy makers at the MOES and school principals from different regions of Armenia). The direct quotes from respondents are presented in this section to serve as clear examples and confirmation of the summarized information.

### 5.1.1 Policy makers at the Ministry of Education and Science

In general, policy makers at the Ministry of Education and Science (MOES) accepted that despite low statistics, HIV/AIDS is a problem in Armenia now. Opinion was mentioned that HIV/AIDS education should be a part of more comprehensive health education; there is no need to set up a separate subject devoted to HIV education only.

*Changes in existing school education laws/regulations*

When asked what kind of changes in the existing laws and regulations are necessary in order to introduce HIV education in schools, necessity of content documents of education policy to be introduced on the government level was mentioned. In general, changes in regulations and provisions are made when: 1) These changes reinforced by the law, 2) Appropriate State standards are developed, and 3) Subsequent to the law provisions and regulations are introduced.

Most policy makers expressed their readiness to support the introduction of appropriate changes in the in the laws and regulations. When asked how do they see their participation in this process, those on executive positions (Chief Specialists) expressed readiness to participate in the process of development of normative documents delineating procedures and conditions under which HIV/AIDS education program is introduced in the school, provide consultations regarding development of guidelines and instructional materials, and teacher manuals. In addition, executives believe they can participate in the content development.

*Importance for policy makers of having knowledge on HIV/AIDS*

All interviewees stressed a necessity for policy makers and other decision makers of having appropriate knowledge on HIV/AIDS.

"*It is extremely important! When policy makers have appropriate knowledge about issues regarding which they are making decisions, their decisions are more appropriate and reflective of the actual needs*."

*Obstacles to introducing and implementing HIV education in schools*

1) Legislative

Opinion of the policy makers regarding necessity of legislative changes in school education system differed. According to the executives, there is a definite need for changes in legislation because currently no law reinforces health education including HIV/AIDS education.

*"…The Law of the Republic of Armenian (RA) "About education" and the Law of the RA "About Organization of Education" do not reflect issues about HIV/AIDS education in schools."*

However, top-level policy makers were less enthusiastic in introducing any changes in the existing regulations motivating it with excess load in the school education program.

*"School education program is extremely overloaded with various subjects and it would be hard to find a space for a new subject".*

2) Administrative

The interviewees mentioned that administrative problems related to introducing HIV education in schools are interconnected with legislative ones. According to one interviewee, unless the Government order requires, no administrative changes will take place in development of new education guidelines and other regulatory documents. Moreover, all interviewees mentioned that there would be a need for trained specialists, who have appropriate methodological skills to develop manuals and instructional materials.

3) Financial/Organizational

It is believed that financial issues could not be solved by the Government. There would be a need for financial support provided by other agencies including international organizations. Also, there should be established a new structure in the MOE, which will coordinate all issues related to development and production of textbooks, preparation/training of appropriate specialists and their distribution between schools.

4) Cultural/Societal

The interviewees expected some counter reaction, especially in rural areas where believe that young people should learn about sexuality-related issues as late as possible. Also, a concern was mentioned that many people do not recognize HIV/AIDS as a real problem for Armenia.

*"The type of obstacles I foresee here is so called "false shame" associated with discussion of sexuality-related issues and ignorance of the problem."*

*Multi-sector collaboration*

Importance of multi-sector governmental participation in development and introduction of HIV/AIDS education was stressed by all interviewed participants. MOES's and Ministry of Health's close collaboration is viewed as a prerequisite for successful prevention of HIV in the country. Involvement of law enforcement bodies is believed to also be important since HIV/AIDS education closely relates to protection of human rights and prevention of criminal cases related to HIV/AIDS issues.

*Parental involvement*

All participants agreed that involvement of parents and other community members may play crucial rule in affecting school education policies.

*"It is important to work with different communities and the population to raise their awareness and involve in discussion surrounding necessity of changes in school education policy. Thus, the population itself puts pressure on policy makers making sound the voice of the public and increasing visibility of changes. To achieve this, the problem should intensively be promoted through mass media."*

When asked about permission of parents or other caregivers in order for students to participate in school HIV prevention course, all policy makers stated that if the State approval received on introduction of HIV education in school curriculum, there is no need for parental permission.

*"That would mean asking parents' permission to teach their children other subjects as well, mathematics, for example. All subjects included in the national school curriculum are thought to be important and necessary for young people."*

*Form and means of HIV education delivery*

The participants believed there should be a combination of different forms of HIV education delivery in schools. They were unanimous that strictly academic method of delivery of HIV education, meaning teacher-oriented course, is no longer appropriate; the method of delivery should be interactive. In addition, it was suggested using extracurricular non-credit activities such as open discussions, exchange of opinions, preventive talks, lectures, and films for HIV/AIDS/sexuality education purposes.

As it was mentioned earlier, policy-makers believed that HIV/AIDS education should be a component of a larger school health education program starting in kindergarten with focus on development of responsible behaviors appropriate for that age and continuing through the high school with concentrating on sexuality education issues starting as of grades 6-7.

When asked about issues that should be addressed by HIV/AIDS school education program, the importance of providing students age-appropriate knowledge necessary for prevention of HIV-infection and other STIs and risky behaviors was stressed.

*"The most important issue is to teach students behavior management skills since each person should develop responsible behavior and be accountable for his own actions!"*

The interviewed policy makers were unanimous in their opinion that any teacher or biology teacher who undergone extensive special training can deliver HIV/AIDS education and health education in general.

### 5.1.2 School Principals

A total of 8 school principals working in schools in Yerevan and four regions have been interviewed. The interviewees had rich working experience both as a school principals and working in school in general. The longest number of years worked as a school principal by the interviewees was 21, and the shortest number of years was 3 years.

*HIV/AIDS as a problem to be addressed by school education*
In general, majority of the school principals accepted that HIV/AIDS is a problem in Armenia today that shall be addressed by the national program. Some of them, however, noted that locally for Armenia it is not a big problem. Nevertheless, all school principals agreed that there is a need for preventive programs to be undertaken in Armenia as HIV/AIDS epidemic is spread worldwide including neighboring to Armenia regions.

When asked whether or not Armenian youth are at risk for contracting HIV/AIDS, majority of the principals believed that nobody is protected from getting HIV if the epidemic is present in the country. Among the main reasons for young people to be at risk lack of information and low awareness on HIV/AIDS have been mentioned. Only two school principals believed that youth is not at direct risk of contracting HIV until they are in their 20-ies and are sexually active.

All interviewees agreed that there are no subjects associated with sex education that are currently taught in the national schools. Several interviewees listed biology classes and first aid/medicine classes that somehow cover issues of human physiology and essential preventive skills. However, there is no comprehensive subject addressing sexual education and healthy life style education in general. It was suggested by one school principal to introduce a new subject, "Family Psychology", for 10$^{th}$ grade schoolchildren, where boys and girls are to be taught separately.

Majority of the interviewed school principals agreed that there is an urgent need to introduce school sex education program so young people are well prepared for future life. "When flow of

liberalized and uncontrolled sex information coming from mass media is very pressing, the only possible counter-action to this is provision of accurate and up-to-date information on how to protect from unhealthy behaviors". Only two participants were not sure in necessity of introduction of sex education in schools. They argued that when adults openly talk about sexuality issues to schoolchildren, it may entice adolescents to early engagement in sex relations.

*"Yes, it is necessary and important to implement HIV education program in schools. Mass media contribute to early maturation of adolescents and it is impossible to control huge flow of information coming through mass media."*

A school principal from Kotayk region

*"While developing the program, psychologists and other specialists shall think of correct ways of introducing it to schoolchildren. I think it would become clear during the actual development of the program which aspects of sex education might contribute to early initiation of sexual life in schoolchildren. I believe it is necessary to be very careful and introduce the subject step by step starting with early ages."*

A school principal from Yerevan

Interestingly, majority of the school principals were unanimous in their believe that carefully developed and properly delivered sex education would not entice adolescents to early initiation of sexual activity. The stress was put on importance of providing schoolchildren with accurate and age-appropriate information. Many interviewees also stressed out value of teaching methods used to deliver this subject, enabling environment, and the education program itself.

*Yes, there is a need for HIV/AIDS education program in schools since our schoolchildren do not have correct information about this issue. However, I would like to stress out that it is important to take into consideration Armenian mentality while developing such program. Also, there is no need to conceal important information from youth and create unnecessary barriers for them to get specific and vital information.*

A school principal from Yerevan

*Changes in existing school education laws/regulations*

Majority of the school principals believed that development and introduction of any changes in the existing laws and regulations regarding school health education is a prerogative of the Ministry of Education and Science and the National Assembly. Only few principals suggested changes in the current regulations including inclusion of appropriate HIV topics into school program, development of age-appropriate manuals, and organization and conduct of appropriate training courses for teachers. In addition, the principals believed that regulations should address issue of skillfully developed textbooks and availability of human resources. One of the principals considered that there is no need for changes in the laws and regulations; only MOES shall centrally adopt policy guidelines required to be followed by all schools.

When asked about interest groups that should be involved in the preparation of HIV education related guidelines, many principals mentioned that along with the Ministries of Education and Health and other governmental representatives who should have leading and coordinating role in this process, various teachers, other education specialists, psychologists, and physicians shall be also consulted. In addition, contribution of organizations having appropriate experience and of international experts is welcomed. Only two schools principals strongly believed that the State

solely has a right to develop HIV-related guidelines, instructional materials, and appropriate educational strategies. Interestingly to note, that both principals were from regional schools

*"Development of guidelines is the prerogative of a MOES, in particularly, the Department of Educational Reforms. However, it is important that education specialists and psychologists are involved in the development of appropriate guidelines and strategies regulating school HIV education."*

A school principal from Yerevan

*Teachers alone would not be able to develop all necessary materials and normative acts."*

A school principal from Kotayk region

*Importance for school administration to have knowledge of HIV/AIDS*

Majority of the interviewed school principals stressed the importance for school administrators, school nurses, and teachers in general to have appropriate and advanced knowledge of HIV/AIDS to be able to be better oriented and to take correct administrative decisions. According to the interviewees, such trainings conducted before introduction of the program into schools could be organized in a form of seminars, series of lectures and should provide the participants with clear explanations of the aims and objectives of school HIV education program.

*"Every intelligent person is aware of HIV/AIDS. However, there is always a need for updated information and advanced knowledge. It is necessary to know updated statistical data etc. Thus, HIV/AIDS training for school administration is very important. If HIV problem exists, we need to prevent the spread of HIV. To do that, we need to be aware, we need information."*

A school principal from Yerevan

*"This [school administration training] will provide school administration an opportunity in the future to monitor how well and correct teachers deliver this subject."*

A school principal from Yerevan

*"…It [school administration training] is required by life"*

A school principal from Ararat region

Out of 8 school principals, only 1 principal from regional school stated that HIV/AIDS training for school administration is not necessary motivating it by a logistical difficulty to train the whole army of administrators. Instead, the principal suggested informal meetings and discussions of school administrators with physicians.

*Obstacles to introducing and implementing HIV education in schools*

Many school principals did not see major legislative obstacles in introducing HIV education in schools. If appropriate law or even normative acts developed by the MOES are in place, schools can readily include the subject into their education curriculum. Otherwise, many principals find impossible to introduce and implement HIV education programs by school itself. This issue is perceived to be solved only on the state level.

With regards to possible administrative and organizational/financial issues, the school principals believed that if the Ministry is eager to introduce new subject, efforts will be undertaken to ensure that schools are provided with appropriate guidelines, age-appropriate curriculum, trained

specialists, and textbooks. Financial problems were viewed by the interviewees as the most possible obstacles to introducing HIV education in the nearest future.

Traditional approach of Armenian society to sex education as a possible obstacle to introducing HIV education in schools was also considered by the school principals. However, many of them did not see major problems with that if children are provided sex education in a very proper and careful way, and if parents are also explained the goals and objectives of such education.

> *"To avoid possible counter-reaction from parents, school-parents relations shall be constant and very strong. The school and parents' efforts shall be united to reach a positive result."*
>
> A school principal from Yerevan

*Capacity of the national schools in introducing AIDS education program into curriculum*

Only three school principals were confident that schools have enough capacity to deliver HIV education if appropriate legislative and normative documents are introduced.

> *"I think we can organize everything on the school level given appropriate support from the Ministry. We will do everything which is possible to do with our efforts. I completely support this initiative."*
>
> A school principal from Yerevan
>
> *"Each biology teacher is able to teach this subject."*
>
> A school principal from Kotayk region

One of the principals strongly believed that introduction of HIV education into school is solely the responsibility of the MOES. It is the MOES that shall provide schools with appropriate instructions, teacher manuals, and textbooks. The Ministry shall also organize teacher development programs.

The other 4 school principals were less confident in the capacity of schools to introduce and deliver HIV education program. It was mentioned that schools have from low to mediocre capacity to develop a program and appropriate textbooks. The interviewees expressed a readiness of their schools to deliver sex education subject given teacher manuals, textbooks, and trained specialists are available.

> *"I personally would not trust any teacher to deliver this subject as the issue is very sensitive and it is necessary to approach it very carefully. There is a need for scientifically pre-tested textbooks and trained specialists who know how to use textbooks and how to organize effective HIV education. In addition to HIV education, teachers shall be able to touch upon topics related to hygiene, sexual maturity, drug use."*
>
> A school principal from Yerevan

*Expected support to schools to effectively introduce and deliver HIV education*

Three out of eight school principals believed that without government support and coordination by MOES schools are very restricted in effective implementation of HIV education. Involvement of NGOs is also considered helpful, however major emphasis are put on the serious support by the government.

*We, schools, are only executors. If the MOES introduces this subject, we will teach it, if not – we will nont. There is nothing that depends on us. Without appropriate actions from MOES, any conversation about introduction of HIV education in school is useless.*

A school principal from Yerevan

Five school principals were more enthusiastic about possibilities for effective introduction and delivery of HIV education in school. Financial and technical support is expected from the Ministries of Education and Health, the state, communities, parents, and from international organizations and NGOs. Also, necessity of having an access to up-to-date statistical information on HIV/AIDS, instructional video films and magazines was emphasized.

*"We will need didactic materials, video films and equipment to demonstrate them. Information on worldwide statistics would help to demonstrate that if HIV/AIDS frightens the entire world, it means that it frightens every individual person in this world. Department of Educational reforms in the MOES and MOH could provide support to schools with this issue."*

A school principal from Yerevan

*Form and means of HIV education delivery*

There was no agreement between the school principals about the form of HIV education delivery. Five out of eight school principals thought that HIV education program should be taught to schoolchildren as a separate course as they will take this issue seriously if it is introduced as a separate course. One of the principals viewed HIV education as a part of other subject, namely medicine/first aid subject. Only two principals believed that there should be a comprehensive health education program which covers topics on hygiene, first aid, sexual education, how to act in emergency situations etc. The comprehensive program shall include issues related to HIV education.

No consistency was observed among the school principals regarding grades in which HIV education should be introduced. Only three interviewees suggested step- by- step approach when health education starts with simple topics in lower grades and moving to more comprehensive and sensitive information in higher grades. Middle schools (grades 6 and 7) were viewed to be the most appropriate for teaching about HIV/sex education to schoolchildren by two principals. The other three principals believed that HIV/sex education should not be introduced earlier than grades 8 through 10.

*"I think that HIV/AIDS education should be taught in grades 8 through 10. In lower grades health education should cover topics related to hygiene, though I believe it is a job of parents. f school shall teach about everything, what parents are for?"*

A school principal from Yerevan

Opinion of the interviewees about possible HIV educators also diverged. Four school principals mentioned that HIV education should be taught by teachers or other specialists who received special training in school health education. Two school principals from regions mentioned biology teachers as potential HIV educators. In addition, one of these principals and another principal from Yerevan stated that health education program including HIV education should be taught by regular classroom teacher in elementary school and by qualified health education

teachers or other trained personnel in secondary school. Also, one school principal believed that HIV education should be delivered by a teacher-psychologist with special training.

When asked about issues to be addressed by school HIV education program, all school principals supported the idea of teaching students age-appropriate knowledge to avoid high-risk behaviors and acquire necessary preventive skills. The only topic all school principals were unanimously against was topic on teaching students how to use condoms/other contraceptives to prevent pregnancy and STIs.

> *I shall emphasize the importance of retaining a common sense. Is not this our goal? These are schoolchildren – how could we talk to them about condoms??*
>
> A school principal from Ararat region

*Parental involvement*

All school principals emphasized the important role of parents in sexual education of their children. It was mentioned that parents and school should act in parallel and support each other in school HIV education efforts. While many principals mentioned about the necessity of taking into account opinion of parents about peculiarities of AIDS school education program, they believed that actual development of the program should be a sole responsibility of the specialists.

> *"Parents have specific role in this issue; however, their role is not crucial. Parents need to be well prepared in this area. They shall have information on what does the school teach children, and they shall be aware of all teaching materials."*
>
> A school principal from Armavir region

Parental permission for students to participate in HIV education school program was thought to be not necessary by 5 school principals given the program is approved by the state. Another three school principals believed that parental permission is important since there might be parents not willing that their children receive sexual education in school. These parents might prefer sex education to remain a business of a family.

While generally accepting that parents may be present during sexuality education lessons with their children, the school principals expressed a concern that many schoolchildren and parents would not feel comfortable whit that. However, realizing importance for parents to be aware of HIV/sexuality education topics that are going to be taught to their children in school, the principals suggested providing information about the potential class topics to parents separately from children. This could be organized in a form of meetings with parents or distribution of print materials to them.

*Alternatives to school sexuality education*

Mass media including TV, radio, and newspapers, district polyclinics were mentioned among the alternatives to national school program to teach young children sexuality education and HIV/AIDS. It was also suggested to establish a series of TV programs for youth, and then discuss each topic shown on TV during extracurricular school activities. However, traditional and comprehensive school education approaches were prioritized over other alternatives of providing youth with important information on HIV/AIDS.

## 5.2 Surveys with Biology Teachers

The main purpose of the survey was to investigate teachers' attitude to integrating HIV/AIDS education in school curriculum, their instructional confidence and comfort with teaching sensitive topics, and their current knowledge of HIV and AIDS. This investigation was intended to provide needs assessment data for designing future teacher development programs in health education. The study was also designed to provide baseline data that could serve as groundwork to evaluate the impact of future teacher development programs and for other assessments.

*Survey goals and objectives*

The primary goal of this study was to identify teachers' attitude to integrating HIV/AIDS/ sexuality education into Armenian school curriculum. A secondary objective was to establish a baseline database against which future teacher development programs will be assessed. For these purposes, the following data were obtained:

1) Basic demographic and background information about the survey participants
2) Attitudes toward integrating HIV education into school curriculum
3) Information about teacher development programs both undergone and perceived as a need by the target population
4) Needs analysis for the potential HIV teacher development program
5) Instructional confidence and comfort with the sensitive topics as perceived by the survey participants
6) Knowledge of the target population of HIV/AIDS.

*Survey Methodology*

*Sampling*
Overall, 123 biology teachers participated in the survey. Teachers were selected from schools in Yerevan, the capital, and in different cities and villages in four regions of Armenia: Armavir, Ararat, Kotayk, and Aragatsotn.

Respondents, school biology teachers, were selected using a probability proportional to size of the target group multi-stage systematic random sampling technique. While this method was seen as the most rigorous method feasible, there is an assumption it is based on: number of schoolchildren served by each school is similar. The desired number of schools from each region was identified using systematic random sampling from the list of schools of the selected regions. As schools in each region were selected, every attempt was made to administer the survey to each biology teacher working in the selected school.

*Inclusion criteria*
All biology teachers working in selected schools were considered eligible for this survey.

*Survey Instrument*
The instrument, a self-administered questionnaire, was developed based on the instructional guides designed by the Division of Adolescent and School Health, Centers for Disease Control and Prevention and adapted for use in Armenia and to the specific objectives of the research.

Specific input was requested from the Ministry of Education and Science and mentors. The questionnaire was developed in English, translated into Armenian and pre-tested with biology teachers working in schools in Yerevan and the regions. Minor changes were introduced in the questionnaire after the pre-test and expert review. The final self-administered questionnaire was 9 pages in length and required from 30 to 45 minutes to complete. The survey instrument addressed the following topics:

1) Possibilities of integrating HIV education into school curriculum (should HIV education be taught to schoolchildren, in which form and in which grades it should be taught, which issues should be addressed, who should teach HIV education, who should be involved in developing and implementing HIV education policies, what obstacles are seen to introducing HIV education in schools)
2) Perception of a need for teacher development programs
3) Needs analysis for the potential HIV teacher development program (confidence about knowledge and skills regarding HIV/AIDS, perceived necessity of special topics to be included in HIV teacher development program)
4) Instructional confidence and comfort with the sensitive topics as perceived by the survey participants
5) Knowledge of HIV and AIDS.

*Survey administration*

Three research teams comprised of a driver and an assistant were trained in how to contact the respondents, introduce the survey, and brief the respondents on the types of questions included in the questionnaire. According to the survey administration protocol, in each region the research teams contacted a school administration of each selected school to clarify a number of biology teachers in the school and their working hours, to set up follow-up visits to distribute self-administered questionnaires and to collect the completed surveys. From three to six visits to each region were necessary to complete the survey. Research team members training (2 days) and instrument pre-testing (2 days) took place during the period from November 11 to November 21, 2002. Data collection started on November 22, 2002 and ended on December 21, 2002.

*Data review, entry, cleaning, and analysis*

Data were reviewed and entered into SPSS data file by a research assistant. Upon completion of the entry phase, the data were cleaned. The analysis was performed using SPSS 11.0 software.

## ***Results***

*Background information on the survey participants*

Distribution of biology teachers participated in the survey by regions of Armenia is as follows:

| Region of Armenia | Participated teachers, % |
|---|---|
| Yerevan | 36.6 |
| Ararat | 17.9 |
| Aragatsotn | 13.0 |
| Kotayk | 16.3 |
| Armavir | 16.3 |

Out of 123 biology teachers participated in the survey, 121 were females and only 2 were males. The mean age of the respondents was 41.5 (SD 10.5 years) with the age range of 21-70. The overwhelming majority of them (97.6%) had high education, 1.6% received professional technical education, and 0.8% completed 10 years of school. Education major was biology in 87.8% of cases, chemistry in 9.8% of cases, and other major in 2.4% of cases. When asked about subjects they are currently teaching in school, biology was mentioned by the majority of the respondents (97.6%), while chemistry was me

The respondents were also asked to indicate which issues should be addressed by HIV/AIDS school education program. The most frequently mentioned issue was that the program should help students acquire essential knowledge to prevent HIV infection at each appropriate level, stated in 97.5% of surveys. This was followed by importance of teaching adolescents in how to avoid specific types of behaviors that increase the risk of becoming infected with HIV (60.7%). Interestingly, rather low percentages were observed for the issues related to describing the benefits of abstinence for young people (38.5%) and providing schoolchildren with information on how to use condoms and other contraceptives to prevent pregnancy and STIs (30.3%).

When asked about specialists that should deliver HIV education in school, delivery by teachers or other specialists who were specifically trained in school health education was rated by the respondents slightly high (51.6%) than delivery of HIV education by biology teachers (45.9%). Interesting to note, that when compared by age groups, up to 35 years old respondents gave a priority of delivery of HIV education to biology teachers, whereas respondents in 36-55 age group preferred those with special training, and respondents in 56 and higher age group believed that any teacher could deliver HIV education. However, these differences observed between three age groups were not statistically significant.

The respondents were asked about different stakeholders that should be involved in developing and implementing HIV education policies and guidelines regarding HIV topics, instructional materials, and strategies. The most frequently cited interest groups were teachers and other school personnel (95.1%). This group was followed by parents (67.8%), policy makers (54.1%), and then students (40.7%). Community and other groups' involvement in developing and implementing HIV education policies was not considered very important by the respondents (only 20.5% of the respondents mentioned this group).
Opinion of the respondents about obstacles to introducing HIV education in school was assessed. Among most frequently mentioned obstacles were absence or limited availability of the textbooks and instructional materials (78.7%), absence or shortage of appropriately trained specialists to deliver HIV education (57.4%), controversy with cultural and traditional norms (36.1%), and lack of appropriate resources and appropriate school infrastructure (34.4%). Surprisingly, absence of apt policy and legal prerequisites for integrating HIV education in school curriculum were mentioned only by 14.8% of the respondents. In addition, 12.3% of the respondents believed there are no obstacles to introducing HIV education in the school. Permission of parents and other caregivers for student participation in HIV education classes was considered necessary only by 30.3% of the respondents.

*Teacher Development Programs*
The respondents were asked whether or not during the past 2 years state or non-governmental agency offered them to participate in any teacher development program. Of all respondents, only 27% were offered such program during the past 2 years. Of those received teacher development training during the past 2 years, 61.8% received training in biology/other sciences, 35.3% in health education, 8.8% in human rights, 8.8% in health education staff development, 5.9% in using interactive teaching methods such as role plays and discussions, and 2.9% in nursing and in teaching students skills for health enhancing and risk reducing behaviors. Other topics in which the respondents have received professional training were ethics and family (0.8%), gender study (0.8%), and sexual education/STIs prevention (0.8%).

The overwhelming majority of the respondents (98.4%) agreed that there is a need for teacher development program for those who will teach health education. When asked about their readiness to participate in teacher development program, 86% of the respondents expressed willingness to take a part in it.

The respondents were also provided with a list of health topics and asked to specify whether or not there is a need for teacher development for each topic. Out of 16 health topics listed, the mean number of topics for which the respondents perceived a need for teacher development was 11.5 (SD 4.4) with a range from 0 to 16. The most frequently mentioned topics were HIV prevention (90.9%), alcohol or drug use prevention (85 %), human sexuality (86 %), emotional and mental health (83.2%), and injury prevention/first aid (76.9%), and tobacco use prevention (76%). The least frequently mentioned topics were physical activity and fitness (classroom instruction, not a physical activity period) (55.4%), growth and development (62%), and dental/oral health and nutrition/dietary behavior (62.8%). Table 3 details teachers' perception of necessity of 16 health topics for teacher development programs.

**Table 3. Necessity of teacher development program for health education topics as perceived by biology teachers**

| **Topic** | **%** (n=123) |
|---|---|
| 1. HIV prevention | 90.9 |
| 2. Human sexuality | 86.0 |
| 3. Alcohol or drug use prevention | 85.0 |
| 4. STI prevention | 83.2 |
| 5. Emotional and mental health | 80.0 |
| 6. Accident, injury prevention/first aid | 76.9 |
| 7. Tobacco use prevention | 76.0 |
| 8. Violence prevention | 75.2 |
| 9. Environmental health | 73.6 |
| 10. Suicide prevention | 68.6 |
| 11. Pregnancy prevention | 67.8 |
| 12. Personal hygiene | 66.9 |
| 13. Dental and oral health | 62.8 |
| 14. Nutrition and dietary behavior | 62.8 |
| 15. Growth and development | 62.0 |
| 16. Physical activity and fitness | 55.4 |

The respondents were also asked to specify whether or not there is a need for teacher development programs in a number of teaching methods. In general, the respondents perceived teacher training in teaching methods less important than training in health topics (content training). In fact, only 44.6% of the respondents mentioned that there is a need for teacher development in using interactive teaching methods, and only 50.4 % of the respondents believed that there is need for teacher training in how to teach students with various social backgrounds. Perhaps these comparatively low figures may be explained by the fact that interactive teaching methods are already widely practiced in Armenian schools. Relatively low interest in how to teach students

with various social backgrounds could be explained by the fact that schools in each district usually serve population of similar social background, and teachers do not encounter students from various social backgrounds in one school. As detailed in Table 4, 80.3% of the respondents found necessary to provide teacher development in teaching students skills for behavior change.

**Table 4. Necessity of teacher development program for teaching methods as perceived by biology teachers**

| **Teaching method** | | **Total** *%* (n=123) |
|---|---|---|
| 1. | Teaching skills for behavior change | 80.3 |
| 2. | Teaching interpersonal communication skills | 74.4 |
| 3. | Teaching goal-setting and decision-making skills | 72.7 |
| 4. | Encouraging family or community involvement | 53.7 |
| 5. | Teaching students of various social backgrounds | 50.4 |
| 6. | Using interactive teaching methods | 44.6 |

The respondents were asked to specify in which form teacher development programs should be organized. A majority of the respondents (63.9%) found workshops including lecture sessions, small group discussions, participants' exercises, and role-plays being most appropriate form for teacher development. Also, 62% of the respondents perceived in-service training to be the next proper form of teacher development. Meanwhile, only 28.7% of the respondents considered continuing education suitable for teacher development. Nevertheless, 47.5% of the respondents mentioned graduate course and 43.4% of the respondents mentioned participation in conferences as appropriate forms of teacher development.

Information was obtained regarding respondents' preferred frequency and duration of teacher development programs. Majority of the respondents (71.3%) preferred workshops, conferences or seminars organized time to time, while single training (38.5%) and continuing education (32%) were less favored.

When asked who should deliver teacher development programs, the majority of the respondents (82%) privileged local experts who received qualified training over international experts in the filed of health education (50.8%) and peer educators (23%).

*Needs Analysis for Potential HIV Teacher Development Program*

The respondents were asked to indicate how confident they are about their knowledge or skills regarding HIV/AIDS using a scale with 12 topics. In general, the respondents had an average confidence about their knowledge or skills regarding potential topics for HIV/AIDS teacher development. Table 5 summarizes the respondents' perception of their confidence about their HIV/AIDS-related knowledge or skills.

**Table 5. Teachers' confidence about their knowledge or skills regarding HIV/AIDS**

| Potential topics | Confidence % | | |
|---|---|---|---|
| | High | Average | Low |
| 1. Basic facts about HIV/AIDS | 11.4 | 78.0 | 10.6 |
| 2. How to get accurate, up-to-date information about AIDS | 17.2 | 60.7 | 22.1 |
| 3. Changing students' HIV related attitudes and behaviors | 21.5 | 63.6 | 14.9 |
| 4. How to promote students' accurate perceptions of their vulnerability to HIV infection | 27.0 | 66.4 | 6.6 |
| 5. How to discuss sensitive topics with students | 34.4 | 54.9 | 10.7 |
| 6. How to teach students skills to help them refrain from engaging in sexual intercourse | 26.2 | 53.3 | 20.5 |
| 7. How to develop students' HIV-related interpersonal skills (e.g., self-esteem) | 23.8 | 58.2 | 18.0 |
| 8. How to teach about condom use | 9.8 | 32.8 | 57.4 |
| 9. How to teach students to refrain from drug use | 45.9 | 42.6 | 11.5 |
| 10. How to involve peers and parents in HIV education programs | 23.0 | 56.6 | 20.5 |
| 11. Where and when to get tested for HIV infection | 24.6 | 54.1 | 21.3 |
| 12. How to deal with community controversy surrounding HIV education | 17.2 | 51.6 | 31.1 |

The topic about which the perceived themselves less confident was how to teach students about condom use. Surprisingly, perceived highest confidence was regarding teachers' knowledge and skills on how to teach students to refrain from drug use (45.9%).

For the same list of 12 potential topics for HIV/AIDS teacher development, the respondents were asked to indicate whether or not the topic should be included in HIV teacher development program. The mean number of topics that should be included in teacher development was 10.4 (SD 2). The overwhelming majority of the respondents perceived a need for all listed topics to be included in HIV/AIDS teacher development program. Comparatively low percentage of teachers (56.1%) believed that topic on how to teach about condom use should be incorporated in teacher development programs.

*Instructional confidence and comfort with the sensitive topics*

Table 6 describes teachers' confidence of their ability to provide students with effective HIV education. A 5-point Likert-type scale was used where a score of 5 was not all confident. Only 26% of the respondents perceived themselves completely confident to discuss with students high-risk sexual behaviors, 51.2% were confident in how to discuss high-risk sexual behaviors with students, and only 4.1% perceived themselves completely confident to explain the students how a condom should be used. The most frequently mentioned topic in which the respondents were not at all confident was the topic on condom use (15.4%).

**Table 6. Teachers' confidence in their ability to provide effective HIV education.**

| Confidence in… | Completely Confident (%) | Very confident (%) | Somewhat confident (%) | Not very confident (%) | Not at all confident (%) |
|---|---|---|---|---|---|
| Obtaining up-to-date information about HIV | 14.6 | 35.0 | 42.3 | 7.3 | 0.8 |
| Present accurate information about HIV/AIDS | 20.3 | 43.9 | 30.1 | 4.9 | 0.8 |
| Answering parents' questions about HIV education | 13.8 | 41.5 | 36.6 | 8.1 | - |
| Discussing high-risk sexual behaviors with students | 17.9 | 51.2 | 26.0 | 4.1 | 0.8 |
| Helping develop skills they will need to refrain from engaging in intercourse | 11.4 | 44.7 | 28.5 | 14.6 | 0.8 |
| Explaining how a condom should be used | 4.1 | 22.8 | 26.0 | 31.7 | 15.4 |
| Discussing high-risk drug behaviors with students | 26.0 | 48.8 | 21.1 | 2.4 | 1.6 |
| Helping refrain from injecting drugs | 26.0 | 44.7 | 22.8 | 5.7 | 0.8 |
| Increasing students' tolerance toward people with AIDS | 14.8 | 42.6 | 28.7 | 11.5 | 2.5 |
| Helping reach more accurate perceptions of their own vulnerability to HIV infection | 15.4 | 52.0 | 26.8 | 5.7 | - |

Information regarding how comfortable teachers are in discussing HIV-related topics as perceived by the respondents is summarized in Table 7. A 5-point Likert-type scale was used where a score of 5 was not all comfortable. Among the respondents, only 58.5% perceived themselves as completely comfortable to discus with students the topic on alcohol use. The respondents were the least confident in discussing with students the topic on condom use (22.8%).

**Table 7. Comfort in discussing HIV-related topics with students**

| Comfortable in discussing | Completely Comfortable (%) | Very comfortable (%) | Somewhat comfortable (%) | Not very comfortable (%) | Not at all comfortable (%) |
|---|---|---|---|---|---|
| How HIV is transmitted | 29.3 | 50.4 | 15.4 | 4.9 | - |
| Injecting drug use | 41.5 | 52.0 | 6.5 | - | - |
| Sexual intercourse | 13.0 | 26.8 | 39.0 | 16.3 | 4.9 |
| Alcohol use | 58.5 | 38.2 | 2.4 | - | 0.8 |
| Condom use | 4.1 | 17.9 | 28.5 | 26.8 | 22.8 |
| Sexual abstinence | 6.5 | 21.1 | 28.5 | 28.5 | 15.4 |
| Male genitalia | 14.6 | 29.3 | 23.6 | 21.1 | 11.4 |
| Female genitalia | 15.4 | 31.7 | 22.8 | 20.3 | 9.8 |
| Non-sexual way of displaying affection | 15.7 | 29.8 | 24.8 | 19.0 | 10.7 |

*Knowledge of HIV and AIDS*

In general, the respondents showed rather low knowledge of HIV and AIDS. For 25 knowledge questions, the mean number of correct answers was 16.4 (SD 3) with the range of 9 to 22. While respondents illustrated quite high knowledge of the main means of HIV transmission, their awareness of ways in which HIV is not transmitted was rather poor. Majority of the respondents (80.5%) believed that people infected with HIV can give it to other people by shaking hands. Among the respondents, 56.9% assumed that a person can become infected with HIV by using public bathrooms. Moreover, 42.3% of the respondents still believed that a person can become infected with HIV by being bitten by an insect, such as mosquito or flea.

The results of the survey indicate, that biology teachers' knowledge of ways of HIV transmission is rather superficial. While 81.3% of the respondents correctly stated that drug users can reduce their chances of becoming infected with HIV by not sharing needles, the overwhelming majority of them (90.2%) did not know that drug users can reduce their chances of becoming infected with HIV by cleaning needles with bleach before injecting drugs. Similarly, even though 70.5% of the respondents correctly knew that not only a person who is sick with AIDS can give HIV to others and 64.2% were sure or thought that statement saying that "People who have AIDS always show clear signs of being sick" is false, only 28% of the respondents believed that statement about "People who are careful to have sexual intercourse only with healthy-looking partners will not become infected with HIV", is false.

## 5.3 Focus Group Discussions with Parents

The aim of focus group discussions with parents of school-aged children was to investigate parents' attitudes and beliefs regarding sex education in schools. In general, 8 focus group discussions were conducted among parents in Yerevan, the capital, and in 4 regions of Armenia (Table 8).

**Table 8. The distribution and number of focus groups by regions of Armenia**

| | Region | | | | |
|---|---|---|---|---|---|
| **Groups** | Yerevan | Lori | Aragatsotn | Armavir | Kotayk |
| FG discussions | 4 | 1 | 1 | 1 | 1 |

Parents were selected via schools located in the selected regions. The focus group discussions were conducted using a focus group discussion guide. The guide was translated and culturally adapted from English into Armenian by the research team. Mentors reviewed and commented on the guide. FG guide was pre-tested in Yerevan and one of the regions adjusted accordingly. One of the mentors approved the final versions of the guide (see Final Activity Report). The research protocol was reviewed and approved by the mentors. The confidentiality of the participants and their responses was assured through the use of codes in transcripts. The participants were informed that names would not be attached to any reports prepared by the research team and that their identities will be protected.

Sessions were facilitated by a trained facilitator and supported by a trained note-taker/recorder. The FG guide was semi-structured and took approximately 80-90 minutes to administer. Prior to starting the session and after discussing consent, participants completed a brief (6 questions) socio-demographic questionnaire (see Final Activity Report). All sessions were conducted in Armenian. The detailed notes on the content of the FG session and non-verbal cues were captured by the note-takers. The sessions were also recorded on audiocassettes after verbal agreement was solicited from all participants.

An average of 6-10 participants attended each focus group session. Refreshments were provided during the session and participants received small thank-you gifts at the end of the session.

***Instrument content***

The following issues were addressed by the focus groups with parents of school-age children:

- Perception of HIV/AIDS as a problem in Armenia
- Opinion about youth's risk for contracting HIV/AIDS
- Knowledge of HIV/AIDS
- Communication with children about HIV/AIDS/sexuality issues
- Necessity of implementation of HIV/AIDS education in schools
- Role of parents in preparing children to sex education in school
- Perceived capacity of the national schools in implementing HIV education and anticipated obstacles in introducing HIV/AIDS education in schools
- Ways of parental involvement in developing school health education programs
- Forms and ways of delivery of HIV education and issues to be addressed by it
- Necessity of parental permission for students' participation in HIV education classes
- Alternatives to school HIV/AIDS education.

***Data Analysis***

Detailed FG discussions were transcribed and translated into English. Expanded notes were translated into a word-processing format. The preliminary analysis sought to identify major themes and facilitate the preparation of initial summaries. Based upon the preliminary analysis, a more detailed coding system was developed and applied to the data in order to address the research questions.

***Findings***

The findings are presented separately for major themes of the research. The direct quotes from participants are presented in this section to visualize the summarized information.

*Socio-Demographic*
Overall, 53 parents have participated in FG discussions from the selected regions. Of them, 38 were females and 15 were males. The age range of the participants was from 34 to 61. Out of 53 participants, 14 were with school education, 15 with college education, and 24 with university education. 21 parents were unemployed.

*HIV/AIDS as a problem in Armenia*

In general, the parents' opinion about whether or not HIV/AIDS is a problem in Armenia differed according to regions. Parents from Yerevan were mostly inclined to consider that there is a risk for HIV/AIDS in Armenia. It was also mentioned that problem is mostly associated with low awareness and lack of information on HIV/AIDS. With regards to parents from the regions, they generally believed that HIV/AIDS is not a big problem in Armenia and that it might be a problem in Yerevan, but not in their regions.

When asked whether or not they believe HIV/AIDS infection is a problem restricted to prostitutes, intravenous drug users, and prisoners, most participants considered HIV/AIDS a common problem and believed that nobody is protected from getting HIV infection. Only participants in Lori region were inclined to think that HIV is a problem restricted to marginalized groups only. Parents in Yerevan believed that prostitutes and other high-risk groups are even more secured from getting HIV since being aware of the risks of their behaviors they take precaution measures. A concern was expressed by participants from several regions about possibilities of getting infected with HIV in health care facilities or through day-to day contacts.

*"I have observed several times when children playing in the yard or public parks have found used syringes with needles. Thus, chances of getting infection are high even for innocent children".*

Participant in Yerevan

*Youth's risk for contracting HIV/AIDS*

The majority of the FG participants felt that young people are at risk of infecting with HIV/other STIs, since they have from no to little knowledge about how to protect themselves. Many participants mentioned that factors contributing to youth's increased HIV risk include liberalization of mass media, negative trends in moral norms, youth's careless attitude of towards and their superficial knowledge of HIV/AIDS, and lack of appropriate education in schools. Parents from Kotayk region also stressed out the ever-higher risk for adolescent girls since traditionally girls are not provided with sex-related information up until marriage.

*"They [young people] don't feel themselves at risk of getting HIV, even though they know about its existence and about risks associated with it. They think it would never touch them".*

*Participant in Yerevan*

*"…Sexual education is not on the appropriate level at schools, parents do not feel comfortable talking to children about protective measures and sex in general".*

Participant in Yerevan

*"Sex images and liberated relationships are extensively promoted through mass media. A lot of motels and hotels, nightclubs, massage saloons, and saunas are opened all over Yerevan and are aimed at promoting and encouraging indecent relationships. It is very difficult for young people to stand up to the lures".*

Participant in Armavir region

*Knowledge of HIV/AIDS*

Majority of the participants stated that although they have some knowledge and information about HIV/AIDS, how it is transmitted and how one can protect himself, there is always a space

for more detailed information and advanced knowledge. Only participants from Kotayk region were confident that they have enough knowledge about HIV/AIDS and none of them thought that they need additional information on this topic. When asked to list major risk factors for HIV infection, unprotected sexual contacts and transmission via blood were mentioned most frequently. Common misinformation and misconceptions about HIV/AIDS expressed by the participants were that HIV can be transmitted via use of public bathrooms, transportation and other public places. Some participants argued that they behave properly and there is no need for them to know everything about HIV/AIDS and that people involved in multiple sexual relations and other "improper" behaviors should worry about this issue.

*"We would learn more about HIV and related issues with a great pleasure and will share this knowledge with our husbands, since it is very important for fathers to have correct information…"*

Participant in Yerevan

*"People having multiple sexual partners or injecting drug users are more concerned with getting additional knowledge about how to protect themselves from contracted different infections. We are "clean" and do not need to worry about these issues…"*

Participant in Yerevan

Several participants from Yerevan expressed a concern that although they have information about HIV/AIDS, it is very difficult for them to openly discuss these issues with their children, and they would not be able to explain everything correctly to them. A need for systematic sex education in school was emphasized.

*"In addition to parents, there need to be somebody else who can explain necessary issues to children. Like school mathematician explains all tricks and basics of mathematics, sexuality education needs to be delivered and explained in the same".*

Participant in Yerevan

*Communication with children about HIV/AIDS/sexuality issues*

In general, parents do not talk to their children about sexuality and related issues. Many of them talk to their children about hygiene rules stressing out the importance of washing hands, brushing teeth, washing fruits and vegetables. However, only a few participants mentioned that they do speak to their children about HIV/STIs risks, however these talks are usually superficial in nature and do not provide children with substantial knowledge on HIV/AIDS and means of protection. Some parents both from Yerevan and the regions mentioned that it is very difficult to talk to children about sensitive issues, and they believe that children would learn everything by themselves. Several participants also mentioned that it is too early to talk about sex-related issues with school-age children, and they would rather postpone these discussions until children are in their 20-ies. One participant stated that she does not see any necessity for girls to know all aspects of sexual life before marriage.

Many parents realized the importance of parent-child communications regarding this issue. Some parents stated that they would talk or are already talking to their children about sex and related issues, provide them with appropriate literature, or discuss with them movies or programs related to these topics that were shown by TV. Also, a number of participants emphasized that even if parents do not communicate with their children about sex issues, children would get this

information from elsewhere, and that information would most probably be of doubtful reliability and accuracy. Thus, it was suggested that parents take the initiative in their hands.

*"In any case our children discuss these issues with each other. So better we provide them more accurate information".*

Participant in Aragatsotn region

*"My son says to me: Mom, you do not worry, I know everything I shall know".*

Participant in Kotayk region

*"In my opinion the child should not learn about these issues in the street. Would street do it better and more accurate than I can do? I doubt it. I am going to explain everything to my son. I learned that recently there was published a book about sex for adolescents. I am going to acquire the book and give it to my son for reading. It is very important!"*

Participant in Yerevan

While generally supporting the idea of talking to children about sex-related issues, majority of the participants believed that despite parental readiness or ability to discuss with children some sex issues, it is preferred that sex education delivered by specialists in schools and in a more structured, systematic, and formal way starting from lower grades through high.

*"I cannot talk to my children about sexuality-related issues at a very detailed level, since I don't have any idea at which age what should be told".*

Participant in Yerevan

*"I believe sexuality education should start when children are at kindergarten yet. We already missed that opportunity with the current cohort of adolescents. Let's not repeat the same mistake with the future generations".*

Despite some disagreement, parents were generally supportive of school sex education and their opinions mainly differed in regards to school grades in which sex education should be initiated. While many parents suggested sex education classes to be started not early than grades 7 and 8 or even grades 9 and 10, there were several parents proposing to start sex education as soon as adolescents enter their sexual maturation period or even from the elementary school providing age-appropriate knowledge at each subsequent grade.

*"I believe sex education is of high importance and it is necessary to teach it to schoolchildren starting from elementary school. We are even late in our current attempt to teach today's schoolchildren about HIV/sex education."*

A participant from Yerevan

Participants were also asked to express their opinion about a common belief that sex education in schools would entice adolescents to engage in sexual practices. While expressing some concerns that sex education may lead to early initiation of sexual life, majority of the parents believed that sex education is very important and will not entice adolescents to engage in sexual relations. Opinion was expressed and supported by many parents that the way sexual education is going to be delivered and its content would have crucial impact on adolescents' further behavior. Participants from Armavir region also stressed that negative attitude of the society to early initiation of sexual life and traditional societal norms play an important role in regulating adolescents' sexual behavior. There was also an opinion that young people differ in their behaviors, and that initiation of sexual life depends on personal characteristics and behaviors regardless availability of school education program.

*"…And who said that they [adolescents] do not become sexually active early without receiving sex education?"*

A participant from Yerevan

*"It is all coming from our traditions, the way we bring up children. Our children would realize that they receive sexual education to have appropriate knowledge, and not to immediately implement gained knowledge into practice".*

*"…On the contrary, if school education is designed in a way that warns schoolchildren about dangers of unsafe behaviors and early initiation of sexual life, children will be informed of all dangers and will avoid unhealthy behaviors."*

Participants from Abovyan region

<u>*Role of parents in preparing children to sex education in school*</u>

All participants agreed that the role of parents and a family in providing background knowledge and preparing their children for sex education in schools is very important.

While stressing out significant role of parents in sexual education of their children, many participants mentioned that parents alone would not be able to manage this task; only school can provide comprehensive and systematic knowledge. Thus, family and school's efforts in providing children vital information on sex issues should be combined and coordinated.

*"Parents should construct a basis upon which a school should build further and advanced knowledge of sexuality issues."*

*"Family has an important role in preparing a basis for a school to continue with. And the role of school is invaluable. So, both a family and a school have interrelated and interdependent roles."*
Participants from Yerevan

Several participants expressed a need for parents to be better prepared and aware of sexuality issues to be able to talk to children. It was mentioned that parents should be ready and should have appropriate skills to talk to children and to establish supportive atmosphere in which children feel comfortable to open or continue discussion. An issue of involvement of both parents in this discussion was brought up since boys may not feel comfortable talking to mothers and girls discussing sensitive issues with fathers.

*Perceived capacity of the national schools in implementing HIV education and anticipated obstacles in introducing HIV/AIDS education in schools*

According to the most parents, the national schools have from very limited to no capacity for implementing HIV/AIDS/sexuality education programs. Teachers' inability, unwillingness and incompetence to teach sexuality education were mentioned among the main difficulties related to implementing health education programs. It is worth noting, that several parents from Yerevan expressed a readiness to pay additionally for teachers' services given they have the capacity and are able to deliver school health education subjects.

*"We pay for so many less important services to be provided to our children in the schools including curtains, floor polish, windows etc that we would pay with even more readiness for teachers' time in order for our children to receive necessary education in regards to sexuality issues. It is very important!"*
Parents from Yerevan

Also, parents expressed a concern that lack or absence of appropriate textbooks and trained specialists may further affect capacity of schools in delivering comprehensive health education. However, many parents believed that as the sexuality education school program receives governmental approval, many capacity-related problems would be solved on the governmental level.

All focus group participants brought up an issue of availability of good specialists at schools. Parents believed that presence of well-trained specialists and availability of a comprehensive health education program are of crucial importance for providing effective school health education. Many parents expressed a real concern about the absence of well-trained teachers able to deliver this subject at school. Importance of having in schools good specialists preferably a psychologist or a physician who could establish friendly relations with pupil and create an easy atmosphere to openly discuss sensitive issues was stressed by the majority of parents.

*"What capacity of schools we are talking about if the teacher smokes in the school. What could this teacher teach to schoolchildren? A teacher should be a role-model for schoolchildren and should teach healthy behaviors by acting accordingly".*

*"Yes, it is very important for schoolchildren to have a psychologist or a physician in the school with whom they can share their fears, problems, and whom they can ask for advice. Kkids can approach these specialists with their individual problems that they cannot discuss openly during class time, learn what is appropriate behavior in a given situation, and receive physiological help."*
Participants from Yerevan

Among other possible obstacles to introducing sex education in schools, national mentality and traditional norms and approaches to sex education were mentioned by the participants from Lori region. Many participants from this region were afraid that such education may cause unnecessary interest of children in sexuality issues and will lead to early initiation of sexual life.

*Ways of parental involvement in developing school health education programs*
All participants were common in their opinion that it is very important to take into consideration parental opinion and involve parents in development of school HIV/AIDS/sexual education program. However, no specific areas in which parents can be of help were suggested. Meetings, discussions, and TV programs were proposed as ways of involving parents into program development process. One of the participants mentioned that by involving parents into initial stages of deciding on topics that should be included in school HIV/sex education, parental support to the reforms and changes in the school curriculum will be insured. While appreciating the importance of taking into consideration parents' opinion on the sex education in schools, participants stressed that parents may not have proper expertise and experience in actual development of the program and textbooks, and that these activities shall be performed by specialists only.

In addition, all parents agreed that it is very important for them to receive a special training in sexuality issues and how to talk to children about these issues. Areas of interest in which they would like to have more advanced training were how to talk to children about sensitive issues, what kind of information should be told to children at each appropriate age, what are the age-appropriate physiological peculiarities of girls and boys.

District schools were considered the most appropriate place to conduct parental trainings by the participants from Yerevan. As suggested by the parents, trainings can be conducted by the same teachers who are going to deliver HIV/sex education to their children in schools. In addition, some parents thought that community-based trainings can also be organized since parents leaving in one community could easily gather together. However, the participants were not sure of the quality of community-based trainings and whether or not parents would attend them.

Parents from regions did not consider district schools appropriate for training purposes as they believed that "parents may loose their authority, if children see that their parents are attending school meaning that there is something that their parents do not know; parents should always be perceived by children as knowledgeable sources". Participants from regions were more inclined to receive training via social workers with medical or psychological background who will visit parents at home, and several parents may gather at one place.

*Forms and ways of delivery of HIV education and issues to be addressed by it*
All participants were consistent in their opinion that HIV/AIDS education should be an integrated component of a larger health education program. Most parents believed that education program should not be focused on HIV/AIDS or sexuality education only, but also tackle general health topics.

*"There would be much more opportunities to address HIV/AIDS and other sensitive issues, when health knowledge is provided in an integrated package of general health education. In addition, when comprehensive approach to health education is applied delivery of HIV/AIDS education could be done in a various forms and in a more natural ways".*

*"It should address various health aspects starting from general rules of hygiene on necessity of brushing teeth and washing hands and up to describing complexity of human behaviors and relationships".*

Parents from Yerevan

Some parents mentioned that health education classes should not be selective but rather comprise an integrated part of the school education program. Also, several parents from Lori region expressed a desire that teachers use different interactive teaching techniques while delivering health education classes.

When asked about grades in which sex education/HIV education components should be introduced, parents' opinions differed to some extent. Many parents believed that it is very important to start health education from the first grade. According to them, health education program in school should start with addressing behavioral and relationships issues. In elementary school it should address healthy life style issues, personal hygiene, relationships with the opposite sex etc. and continue through the subsequent school levels and grades adding up more complex and multi-facet information on relationships and topics. According to the majority of parents, elements of sex education should not be introduced earlier than grade 7 or 8, and in some regions grades 9 and 10 were thought to be even more appropriate. Also, several parents from Yerevan suggested sexuality education for girls to precede that of boys as girls' get matured earlier than boys do. Separate school sex education for girls and boys was also advocated by parents from Lori region.

While many parents agreed that HIV/health education should teach children how to avoid HIV and other sexually transmitted infections, it was specifically stressed that going into details on sexual relations is not acceptable. There was no consensus among parents on whether or not school health education program should focus on teaching students how to use condoms and other contraceptive means to prevent pregnancy and STIs. Many parents were concerned that as soon as children of 8 to 10 grades are explained how to use condoms, they would apply these skills in practice. Majority of the parents were inclined to teaching children only about dangers of unprotected sex and how to avoid risks associated with unhealthy behaviors.

*"Sex education in school should not be too detailed and should not provide 15-16 years old children with knowledge which they should learn only when they are 20".*

Parents from Armavir region

*"School sex education should emphasize that sex is not only a joy but it is also a responsibility."*

Parents from Abovyan region

Majority of the parents mentioned that delivery of health/sex education is schools should be conducted by trained specialists preferably a psychologist or a physician. Also, it was also suggested do not use formal tests to assess students' knowledge on this subject. It should be

delivered in a form of discussions, and a teacher should act like a more knowledgeable friend who explains them life issues and shares with them his/her own ideas and believes.

*Necessity of parental permission for students' participation in HIV education classes*
The overwhelming majority of parents believed that no parental permission is necessary for children to receive sexuality education in schools. Common opinion was that if sex education program is national in its scale and approved by the government, there is no need for parents to worry about inappropriateness of the program and to give a special permission for participation in that class.

> *"If the program is officially taught in schools, it means that its' necessity is recognized by policy makers, school administration, and teachers, and that parents have nothing to add to this."*
>
> Parents from Lori region

When asked whether parents would like to be present during sex education classes with their children, majority of them did not find it appropriate as children may not comfortable. However, some parents stated that they would like to be present during lessons to be aware of what is particularly taught to children, how well the school program is prepared and in how it is delivered.

*Alternatives to school HIV/AIDS education*
As alternatives for teaching HIV/AIDS prevention to adolescents then through the national school curriculum, parents suggested mass media, preferably TV programs-discussions organized in a very interactive and attractive ways, since lengthy and boring lectures would not be watched. They suggested using role-plays, scenes on different family problems with subsequent discussions on what was done incorrectly and how it is possible to solve the problems. However, some parents found this channel not appropriate for teaching sensitive topics. Among other channels for HIV/sexuality education, participants suggested involving higher education institutions, district polyclinics, and informal lectures with children. It was also recommended that a family physician deliver a lecture-discussion to schoolchildren, not in a for of a lesson, but rather a discussion.

Nevertheless, majority of the parents believed that school education is the most appropriate and feasible channel of providing adolescents with systematic and organized knowledge of HIV/sex issues. It was also suggested to prepare teaching films on different health education topics and demonstrate them during health education classes in schools.

## 6. CONCLUSIONS AND RECOMMENDATIONS

Youth is societies' utmost asset and investments in youth can benefit both communities and nations. By supporting schools in preparing young people to take an advantage of satisfying and productive lives, investments in youth can be exploited. HIV/AIDS and other sexually transmitted infections are challenges to be overcame to ensure these preventive health problems do not interrupt learning, lives, and overall development of adolescents. Schools need to provide

HIV education along with education about sexuality, reproductive health, life skills, substance use and other vital health education topics.

In Armenian society, we are uncomfortable discussing sexuality issues and, particularly, adolescents' sexuality. As a result, means of dealing with youth sexuality include acting as if adolescents do not have sex or trying to control and restrict information about sex and contraceptives.

Recent studies indicate that Armenian youth are practicing risky sexual and drug use behaviors and are willing and eager to receive appropriate information on sexuality related issues and means to avoid unhealthy behaviors and act in a more protective and responsible way.

The current study showed that on the level of policy development and proficiency in the area of school health education including sexual health, necessity of school-based HIV/AIDS/sexuality education is not distrusted anymore and considered good investment into young people' health and well-being. While necessity of changes in legislative and regulatory documents is accepted and supported by all policy makers, only experts in the field and top-level officials were enthusiastic offering their efforts in introducing new program and advocating for policy changes on higher levels. Lack of initiative to introduce legislative changes and limited confidence in their expertise perceived by school principals could be a consequence of old stereotypes when centralized governmentally made decisions were mandatory for officials at each level of education system. A need for up-to-date and advanced information about HIV/AIDS and sexual health to be communicated to policy makers is substantial to empower and enable them to take correct decisions in the light of current improvements and initiatives in the entire system of school health education and should be continuously reinforced. Shortage and irregularity in provision of governmental resources and funds were considered major obstacles to implement school health education schemes and were suggested to be addressed through initiatives coming from the non-governmental sector and international organizations working in the region on a variety of development programs.

The key findings of this research lead to the conclusion that biology teachers are very supportive of integrating HIV education/sex education into Armenian schools curriculum. The most appropriate form of HIV education delivery is thought to be a separate course taught from 8 to high grades. Involvement of specialists received training in school health education into delivery of HIV education was supported. While planning to introduce HIV education in schools, absence or limited availability of the textbooks and instructional materials, lack of appropriately trained specialists to deliver HIV education should be taken into account and addressed. Potential HIV teacher development programs shall be directed at building capacity of teachers in developing instructional confidence and comfort with sensitive topics, and in bringing up teachers' knowledge and skills about HIV/AIDS and sexuality.

Many parents participated in this study believe that sexuality education should begin in the home. Yet, they accept that families provide too little or no sexuality education and often provide it too late. According to parents, their communication with children about sex includes "a few directives and guidelines, sometimes forceful, a lot of indirect verbal messages; and a traditional background of innumerable nonverbal messages". Only few parents mentioned some discussion

about sex and provision of literature about sexual issues to children. Despite parents' general discomfort with sexuality subject, the overwhelming majority of parents say they want young people to have the information and appropriate skills. Parents acknowledge that they are ill prepared to discuss sexuality issues with their children and are unsure what to discuss with their children about HIV/AIDS. At the same time, parents accept that teaching about respect, intimate relationships, responsible decision-making, and using protection in sexual relationships is of vital importance to youth. The challenge will be to build on these positive attitudes and to promote this new approach to adolescent sexual health in Armenia. Skills-building and educational sessions organized by various community-based organizations staffed with educators, social workers, counselors, and doctors would be of help for parents to become better sexuality educators of their own children.

Based on the conducted research and in the light of distinctive educational reforms and changes at the national level, it appears the right time to further on the proposal for a school-based pilot program, and to set HIV/AIDS/sexuality education on the agenda of school health education sector within the Ministry of Education and Science. The following actions are recommended in order to promote health of Armenian youth and to ensure their future well-being and success:

- National guidelines and strategies for HIV/AIDS/sexuality education as a part of comprehensive school health education program should be developed in close collaboration between Ministries of Education and Science, Health, Youth, parental associations, NGOs, and youth centers.

- Issue of adolescents' sexual and general health should be widely promoted and advocated on all levels through large-scale mass media initiatives and lobbying with policy-makers and officials at various power echelons.

- HIV/AIDS/sexuality education should be a part of a larger comprehensive health education program and be mandated as a part of secondary school curricula.

- Multi-sector collaboration on HIV/AIDS/sexuality issues between schools, NGOs, public health organizations, youth centers, parents associations would provide valuable inputs.

- Necessary resources and investments should be assured taking into consideration capacities of the non-governmental sector and international organizations working with youth.

- Teacher development programs are crucial for bringing up capacity of the national school to address adolescents' sexual education issues and should be organized on a continuing in-service teacher training basis and include specific content and interactive teaching methods training.

- Involvement of parents into development and discussions of the national school health education strategy is vital for and should be ensured.

- Opinion of young people's of the program content should solicited and their participation in the program development should be assured.

This research paper and a connected policy paper are aimed to provide a rational for further funds needed to start with the development and implementation of a pilot program for a school-based HIV/AIDS education. As evidenced by a number of stakeholders who were communicated in the course of the current research, urgency for advancing sexual and health literacy of adolescents through systematic and comprehensive school education is apparent, and it is time for actions now!

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