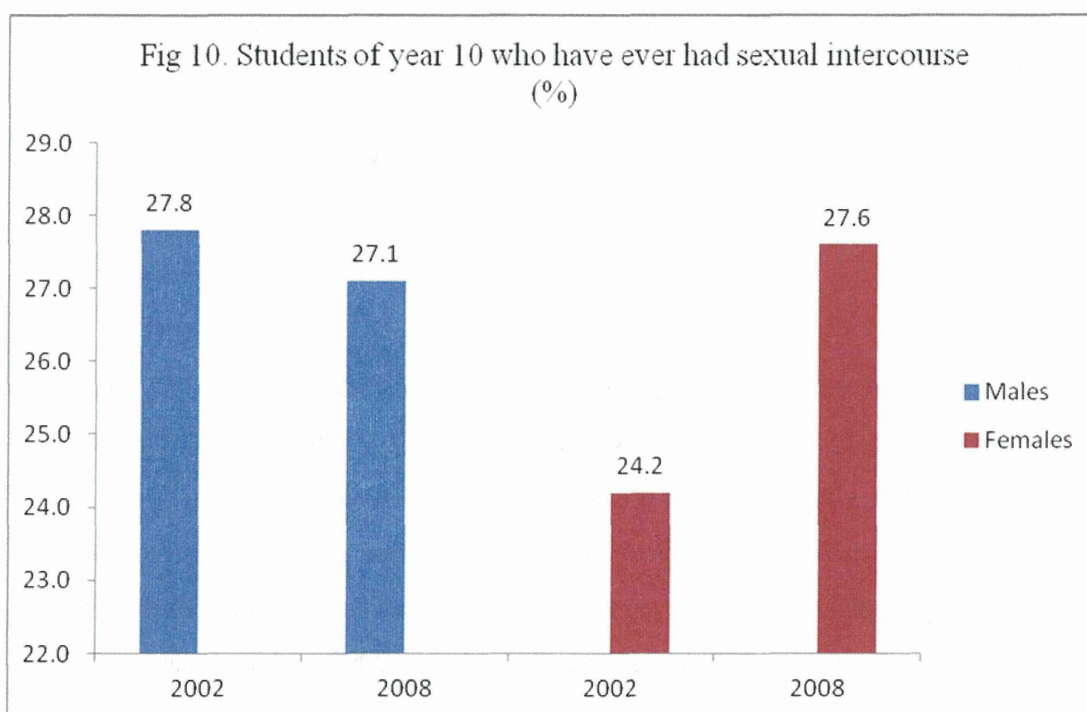
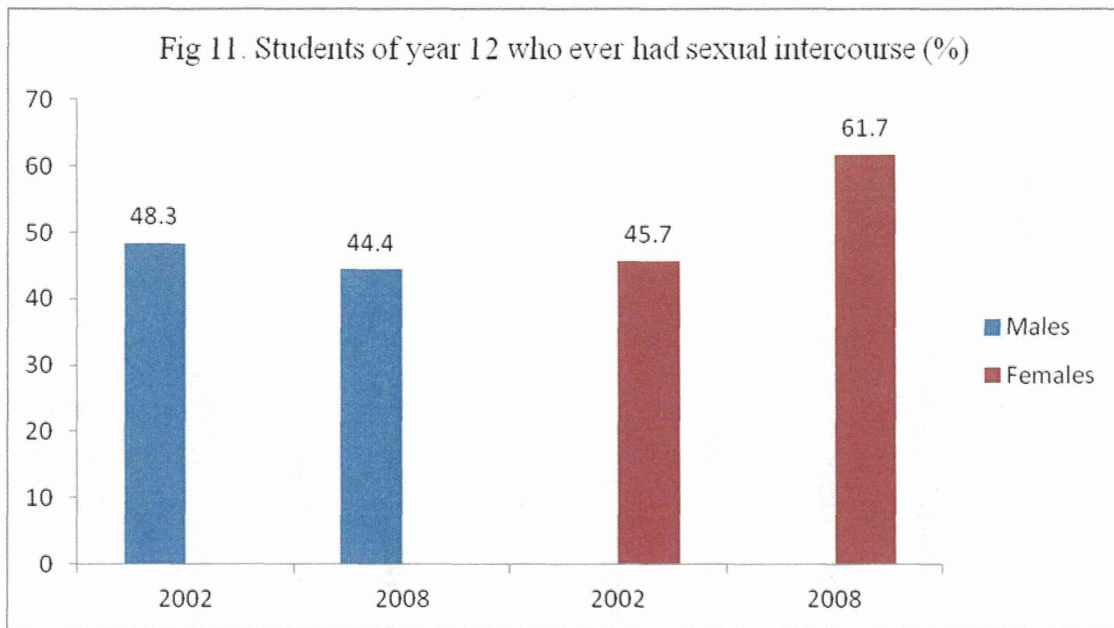


Table 5. Students who have ever had sexual intercourse (%).

	Year 10		Year 12	
	2002	2008	2002	2008
<b>Sex</b>				
Males	27.8	27.1	48.3	44.4
Females	24.2	27.6	45.7	61.7
Total	25.8	27.4	46.8	56.1





## 2.3 Multiple sexual partnership/lifetime number of sexual partner

### 2.3.1 USA

In the United States, the YRBS (2011) [14] indicated that 15.3% of students had had sexual intercourse with four or more persons during their life. Overall, the prevalence of having had sexual intercourse with four or more persons was higher among male (17.8%) than female (12.6%) students. Among students nationwide, the prevalence of having had sexual intercourse with four or more persons during their life decreased during 1991–2001 (18.7%–14.2%) and then did not change significantly during 2001–2011 (14.2%–15.3%). The prevalence of having had sexual intercourse with four or more persons during their life also did not change significantly from 2009 (13.8%) to 2011 (15.3%). (Fig. 12)

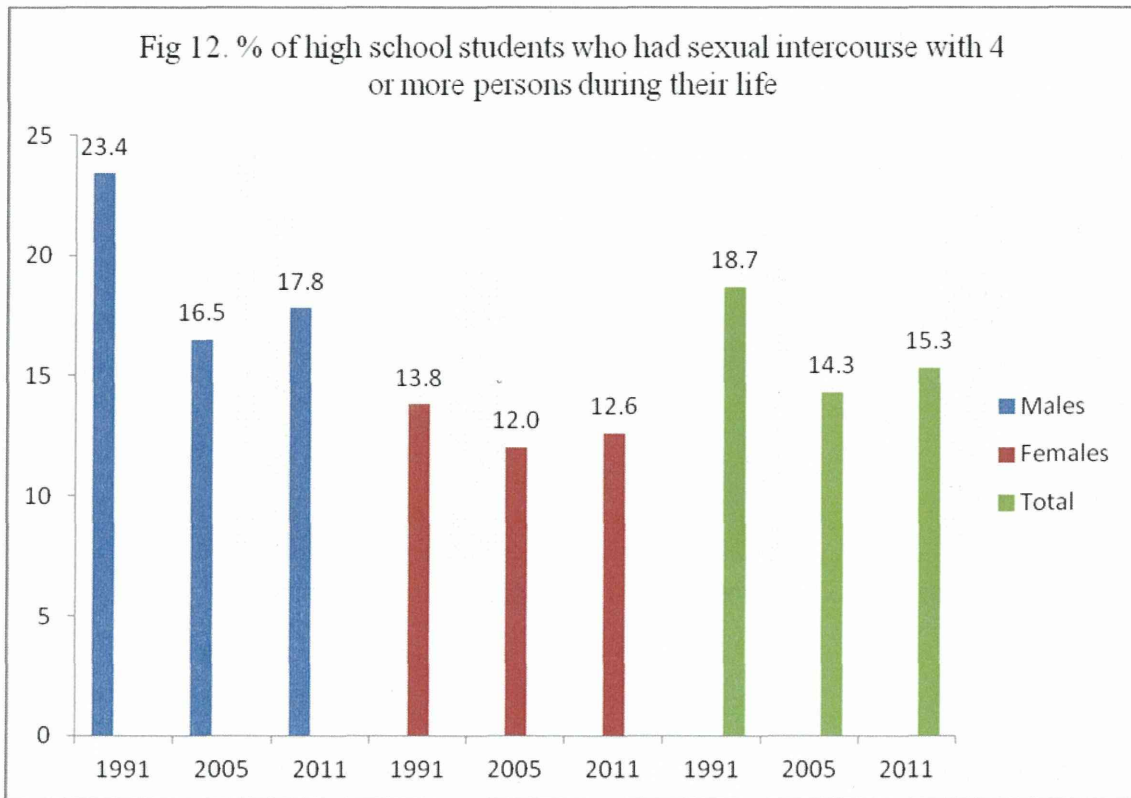


Table 6. Percentage of high school students who had sexual intercourse with four or more persons during their life.

	1991	2005	2011
<b>Sex</b>			
Males	23.4	16.5	17.8
Females	13.8	12.0	12.6
Total	18.7	14.3	15.3
<b>Grade</b>			
9	12.5	1.5	8.7
10	15.1	2.0	12.3
11	22.1	2.4	17.3
12	25.1	2.8	24.1

### 2.3.2 Finland

The proportion of those with 3 or more sex partners increased between 1996/1997 and 2000/2001 in boys and between 1996/1997 and 2004/2005 in girls, but there was no major changes in boys and girls after the period 2000/2001 and 2004/2005 respectively.

### 2.3.3 Australia

According to the 2008 National Survey of Australian Secondary Students [19], the vast majority of sexually active students (97%) had experienced sexual intercourse with at least one person in the year prior to being surveyed. Although most (52%) sexually active students reported having one sexual partner in the past year, a significant proportion (45%) of students reported having sex with more than one person. Although relatively more young men (37%) than young women (27%) reported having sex with 3 or more people in the previous year, the difference here was not statistically significant. Compared to the 2002 survey, National survey of Australian Secondary Students, there is a substantial increase in the proportion of males and females who reported 3 or more sexual partners in the previous year.(Table 7 & Fig. 13)

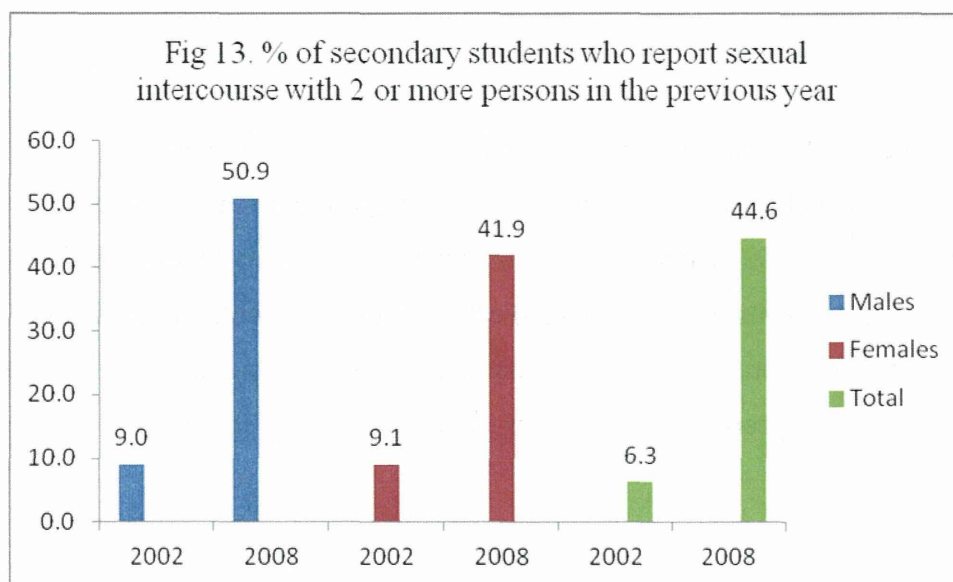


Table 7. Sexually active students reporting multiple sexual partners in the previous 12 months (%)

		Total	
		2002	2008
Males	I have not had sex in the past year	59.7	4.4
	1 person	31.3	44.7
	2 people	9.0	13.7
	3 or more people		37.2
Females	I have not had sex in the past year	46.1	2.9
	1 person	44.8	55.2
	2 people	9.1	15.4
	3 or more people		26.5
Total	I have not had sex in the past year	46.8	3.3
	1 person	46.9	52.0
	2 people	6.3	14.9
	3 or more people		29.7

#### 2.3.4. Canada

In 2009/2010 survey [15], about one-third of sexually active 15- to 24-year-olds reported having had sexual intercourse with more than one partner in the previous 12 months, unchanged from 2003 (Table 2). A larger percentage of sexually active males than females had had intercourse with more than one partner: 39% compared with 25%. The percentage reporting more than one sexual partner was higher among 15- to 17-year olds than among 20- to 24-year-olds (35% versus 30%). (Fig 14 & Table 8)

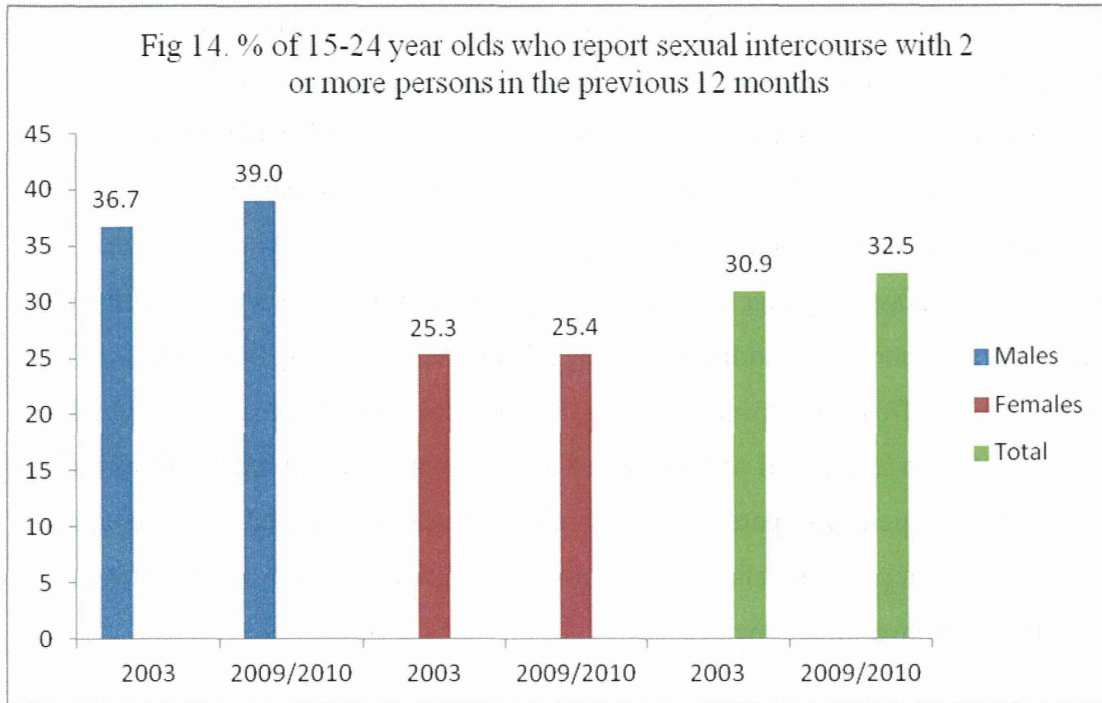


Table 8. Multiple partners of sexually active 15- to 24-year olds, by sex and age group.

	2003	2009/2010
<b>Sex</b>		
Males	36.7	39.0
Females	25.3	25.4
Total	30.9	32.5
<b>Age group</b>		
15-17	35.1	34.7
18-19	34.9	39.4
20-24	29.0	30.0

## **2.4 Condom use**

The correct and consistent use of the condom remains among the most effective devices for preventing sexually transmitted infections among sexually active individuals.

Although most sexually transmitted infections including HIV takes place when condoms are not used, and mechanical condom failures are relatively rare, the effectiveness of condoms is jeopardized by commonly experienced problems with use resulting in breakage, slippage and partial use [4]. Several factors are associated with lower with likelihood of condom use among adolescents, including but not limited to substance use, difference between partners, having experienced sexual abuse. On the other hand factors associated with increased condom use in sexual relationships include higher connectedness with parents, history of attendance of sexual education course, higher self-efficacy and beliefs that condoms are effective at preventing pregnancy and sexually transmitted infections [4].

### **2.4.1 Synopsis on the effectiveness of male condom**

The evidence that latex-based and polyurethane-based condoms were effective in preventing transmission of sexually transmitted pathogens started to accumulate in-vitro tests, and the use of condom of have been recommended for HIV prevention since the early 1980s.

A Cochrane review of several longitudinal studies has indicated that the use of condom was 85% effective in preventing the transmission of HIV status. When male condoms are used consistently, their effectiveness can be as high as 95% [60]. However, the population-level effect of condoms remains to be documented, and research is needed in this regard. Moreover, there is evidence that in many populations, the male condoms is not well accepted even as a contraceptive device. Inconsistency in the use of condom is another issue that hinders potential benefits from condoms. For example, although individuals might use condoms successfully with particular partners (eg, clients of sex workers), their use with regular or steady partners might be suboptimum [61,62]. It is worth to underscore that the use of condom as a preventive tool for sexually transmitted infection carries a lot more challenge than when it used for contraception. The risk of pregnancy varies during the course of the menstrual cycle; protection against infection requires consistent use of the male condom, indicating the need for sustained

availability and supply. Despite these challenges, vigorous and creative condom promotion campaigns and marketing of various condoms have brought some changes in perception and uptake of condoms. Analyses of data from the Demographic and Health Surveys have shown increases in the use of condoms by young, unmarried women in many parts of the world [62].

#### **2..4.2. Synopsis on the effectiveness of female condom**

Contrary to the male condoms, female condoms are still not widely used. However, female condoms have been promoted to by-pass the obstacle of male condoms which use is dependent on the willingness of men.

The female condom provides a physical barrier that prevents exposure to genital secretions containing HIV, such as semen and vaginal fluid. Like their male counterparts, laboratory tests have shown that polyurethane female condoms also provide an effective physical barrier against HIV transmission. A number of clinical trials have demonstrated the effectiveness of female condoms in preventing exposure to semen, and subsequently reducing risk of sexually transmission infections; however, the ability of the female condom to prevent HIV infection has not been directly assessed. The effectiveness of female condom was shown to be whether similar or lower than male condom. In a crossover trial in which male and female condoms were compared, increased rates of semen exposure (detected by post coital prostate-specific antigen test) and self-reported mechanical difficulties were noted, which might suggest lower effectiveness of female condoms for prevention of transmission. By contrast, in a randomized controlled trial that compared women who were provided with condom counselling and male condoms with those who were provided with condom counselling and female condoms, rates of sexually transmitted infections did not differ substantially, suggesting that male and female condoms have similar effectiveness [62].



### **2.4.3. Trends of condom use among adolescents and young in selected regions and countries.**

#### **2.4.3.1 Europe**

Result from a multilevel analysis of condom use among adolescents in the European Union indicate that the use of condom in European countries and schools is low, and is correlated with alcohol use, a history of bullying behavior and gender, HIV prevalence rate and a range of socio-economic factors.

In the 2000/2001 HBSC survey [5], the proportion of sexually active young people who reports using a condom the last time they had sexual intercourse ranges from 64% in Finland to 89% in Greece. The proportions are 70% or less in six countries and regions including Scotland, Germany, Wales Sweden, and Finland, with Finland and Sweden at the low end. The proportions were 80% to nearly 90% in seven countries including Greece, Spain, Israel, Macedonia, France, Austria, and Switzerland, with the highest levels in Greece and Spain. In almost all countries and regions, boys are more likely than girls to report condom use the last time they had sexual intercourse.

In some countries like Ukraine, and Belgium, the gender difference could be sometimes large. The proportions reporting condom use ranged from 68.5% in Portugal to 91% in Greece for boys and from 58% in Sweden to 89% in Spain for girls. These genders discrepancies raise complex questions related to cultural context, public policy and content of health education programmes.

There was a notable increase in the proportion of adolescents reporting condom use in the 2009/2010 survey [6] when compared to the 2000/2001 survey [5]. However, a significant minority still reports non-use. This may be explained by young people lacking either access to or the necessary skills to buy or use condoms. As in the 2000/2001 survey, boys were more likely to report condom use at last sexual intercourse, possibly as they feel less embarrassed buying and/or using condoms, but rates of use do not vary significantly between countries. The proportion of sexually active young people who reports using a condom the last time they had sexual intercourse ranged from 63.5% in Sweden to 90% in Estonia. The proportions are 70% or less in 4 countries including Iceland, Finland, Norway, Romania, and Sweden. The proportion were 80% or more in 14 countries and regions including Estonia,

Luxembourg, Greece, France, Slovenia, Spain, Croatia, Switzerland, Portugal, Austria, Poland, Wales, Lithuania, and Ukraine. Compared to the 2000/2001 survey, Germany has moved from 70% to 79.5% and Wales from 69.5% to 80.5%.

In almost all the countries, the proportion of girls who report condom use at last sexual intercourse has increased at the exception of Spain, Switzerland, and Austria. However, the proportion of male who report using condom at last sexual intercourse did not increased in some countries (Greece, Spain, Lithuania, Ukraine, Latvia, Hungary, Netherlands, Scotland, and Sweden) and other countries did not have comparative data (Luxembourg, Italy, Slovakia, MKD, Armenia, Ireland, Romania, Norway, and Iceland). (Fig. 15 & Fig. 16)

In countries with increased proportions of condom use in boys and girls, the increased proportion of condom use was much higher in girls than in boys in Slovenia, Poland and Germany, while in other countries the increase was relatively proportionate (Fig. 17)

Fig 15. 15-year-olds female who used condom at last intercourse (%)

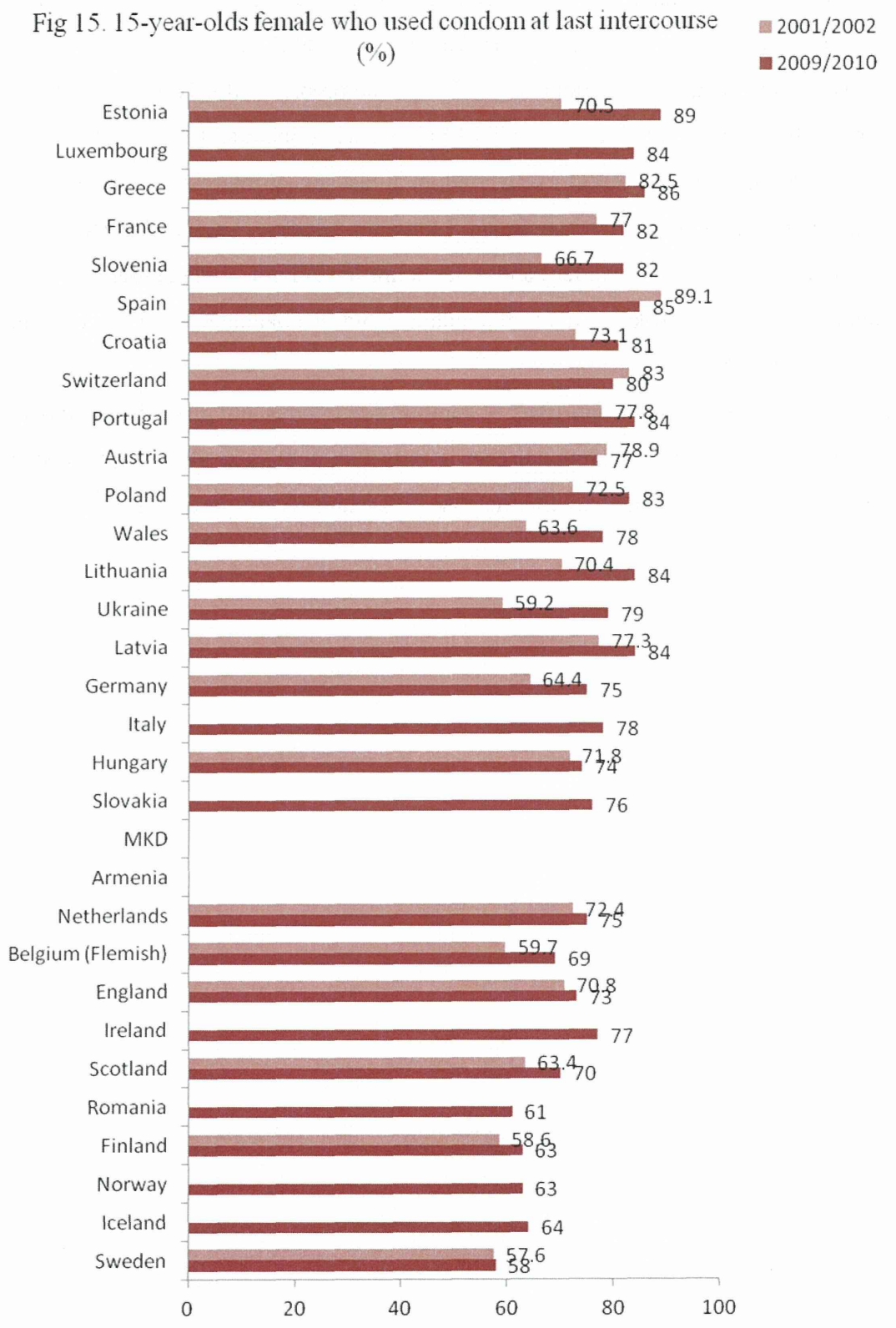


Fig 16. 15-year-old male who used a condom at last intercourse (%)

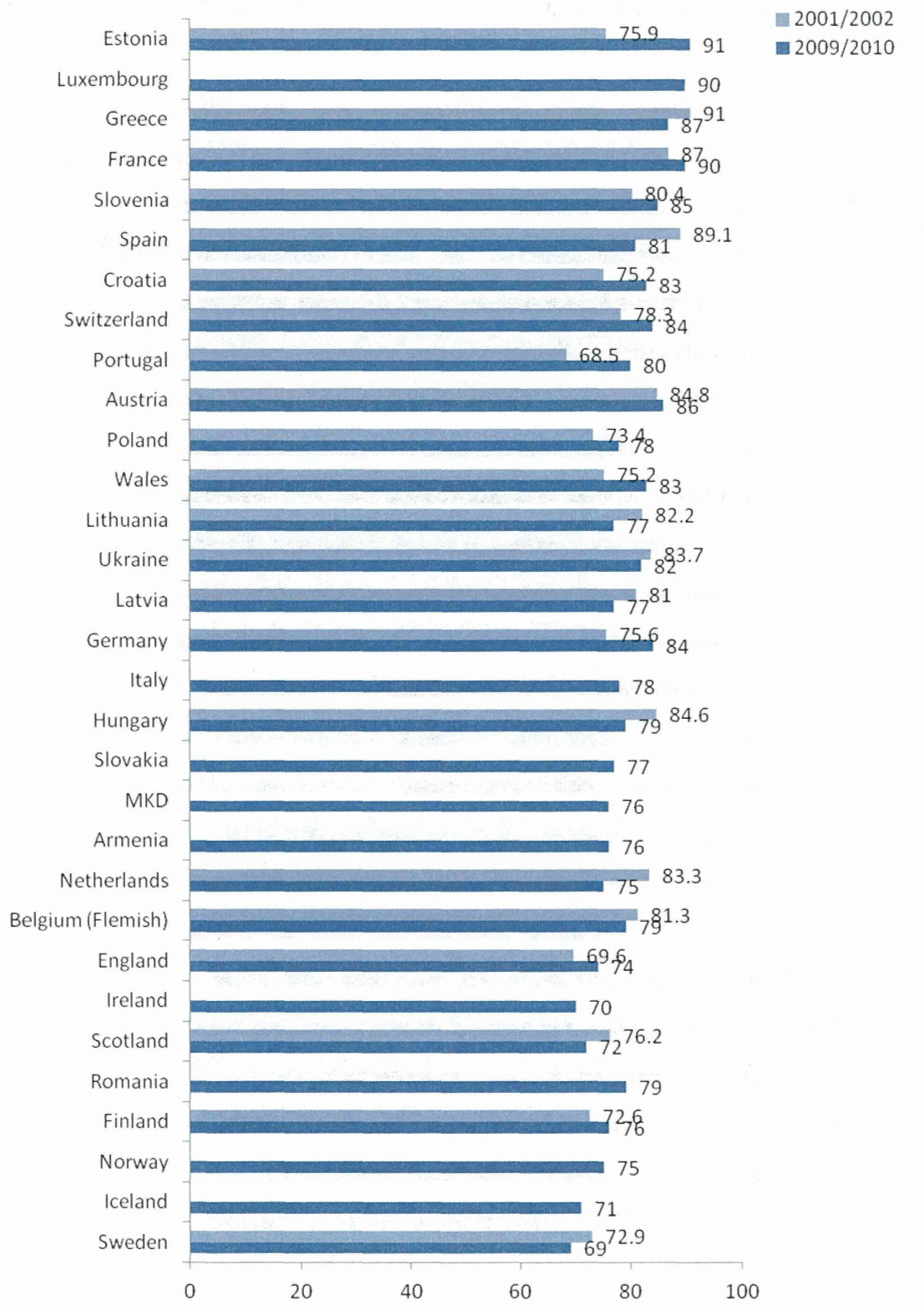
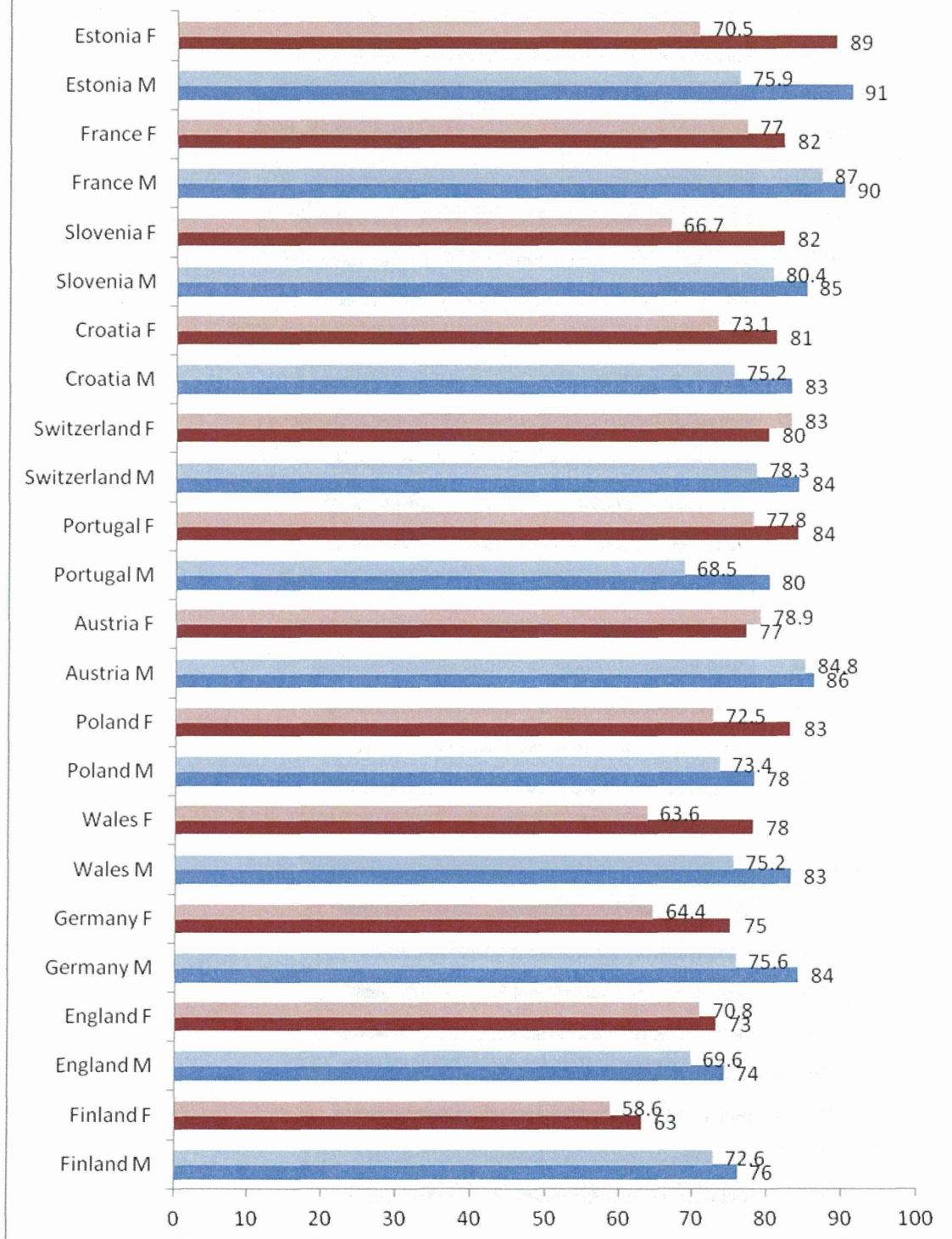


Fig 17. Comparison of proportion of condom use at last sexual intercourse between females and males in 2000/2001 and 2009/2010 surveys.



### 2.4.3.2 USA

According to the YRBS [14], condom use at most recent sexual intercourse, as reported by sexually active high school students, increased from 46 percent in 1991 to a high of 63 percent in 2003. Since then, there was a slight decrease, to 60 percent in 2011.

Reported condom use differs greatly by gender. In 2011, 67 percent of sexually active male high school students reported that they or their partner used a condom at most recent sexual intercourse, compared with 54 percent of females. (Figure 1) Disparities differed by race. Hispanic males were 10 percentage points more likely than females to report condom use at last sexual intercourse, white males were 13 percentage points more likely, and black males were 22 percentage points more likely. (Fig. 18 & Table 9)

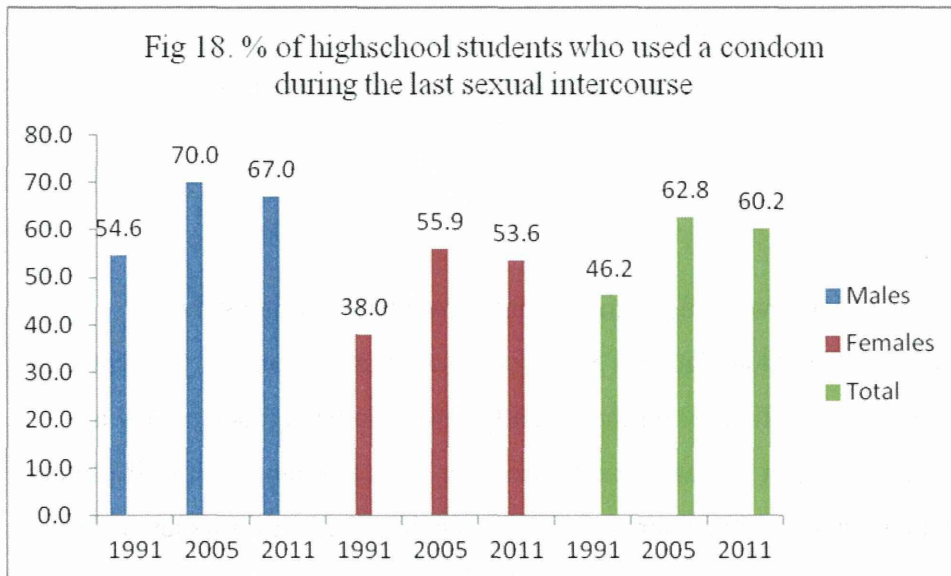


Table 9. Percentage of high school students who used a condom during the last sexual intercourse by sex and grade

	1991	2005	2011
<b>Sex</b>			
Males	54.6	70	67.0
Females	38.0	55.9	53.6
Total	46.2	62.8	60.2
<b>Grade</b>			
9	53.3	74.5	62.2
10	46.3	65.3	63.3
11	48.7	61.7	61.1
12	41.6	55.4	56.3

#### 2.4.3.3 Australia

Unsafe sex practices and unwanted pregnancy are significant health issues for Australian teenagers. The 2008 National Survey of Australian Secondary Students [19], HIV/AIDS and Sexual Health indicate that slightly fewer students reported that a condom was actually used at the last sexual encounter (64%). Young men (74%) more likely than female students (60%) to report using a condom the last time they had sex. This trend is similar to the result from the 2002 National Survey of Australian Secondary Students.

Students who reported not using a condom at their last sexual encounter were presented with a set of reasons to account for their non-use. Being unprepared and not expecting sex (‘it just happened’, 39%), trusting a partner (31%) and knowing a partner’s sexual history (27%) were the most common reasons stated for failing to use a condom at the last sexual encounter. Young women were significantly more likely to offer both trusting their partner (39% vs. 6%) and knowing their partners sexual history (31% vs. 14%) as reasons why a condom was not used the last time they had sex

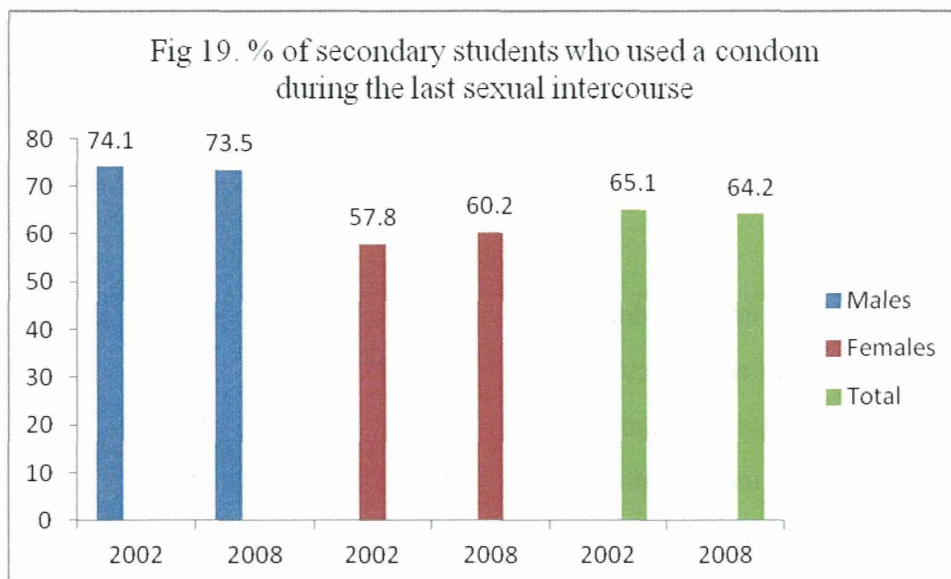


Table 10. Sexually active students reporting that a condom was used at the most recent sexual encounter (%)

	Total	
	2002	2008
Males	74.1	73.5
Females	57.8	60.2
Total	65.1	64.2

Of sexually active students half reported always using condoms when they had sex in the previous year. A considerable proportion (43%) of sexually active students reported they only used condoms sometimes when they had sex, and a small (7%) but nonetheless notable proportion never used condoms when they had sex in the previous year. There were significant differences in consistency of condom use by gender. Young men (61%) were more likely than young women (46%) to always use condoms when they had sex in the previous year. In 1997 and 2002 studies, of concern was the finding that consistent condom use and number of sexual partners were negatively associated – the same pattern persisted in 2008 data. Students who were more sexually active, in terms of number of partners (3 or more), were significantly less likely to report always



using a condom when they had sex in the past year compared with those who had fewer sexual partners (42% vs. 54%). (Fig. 19, Table 10&11)

Table 11. Sexually active students reporting condom use in the previous year (%)

		Total	
		2002	2008
Males	Always used condoms	59.7	60.8
	Sometimes used condoms	31.3	34.9
	Never used condoms	9.0	4.3
Females	Always used condoms	46.1	46.1
	Sometimes used condoms	44.8	45.8
	Never used condoms	9.1	8.1
Total	Always used condoms	46.8	50.5
	Sometimes used condoms	46.9	42.6
	Never used condoms	6.3	6.9

#### 2.4.3.4 Canada

According to the CCHS [15], 24-year olds reported using condoms the last time they had intercourse, compared with 62% in 2003. As in 2003, condom use was more common among males than females—in 2009/2010, 73% of males, compared with 63% of females, reported using condoms the last time they had intercourse.

As was the case in 2003, the 2009/2010 results indicate that condom use declined with age from 80% among 15- to 17-year-olds to 63% among 20- to 24-year-olds. It may reflect the tendency to use other forms of birth control, such as oral contraceptives, at older ages. (Fig. 20 & Table 12)

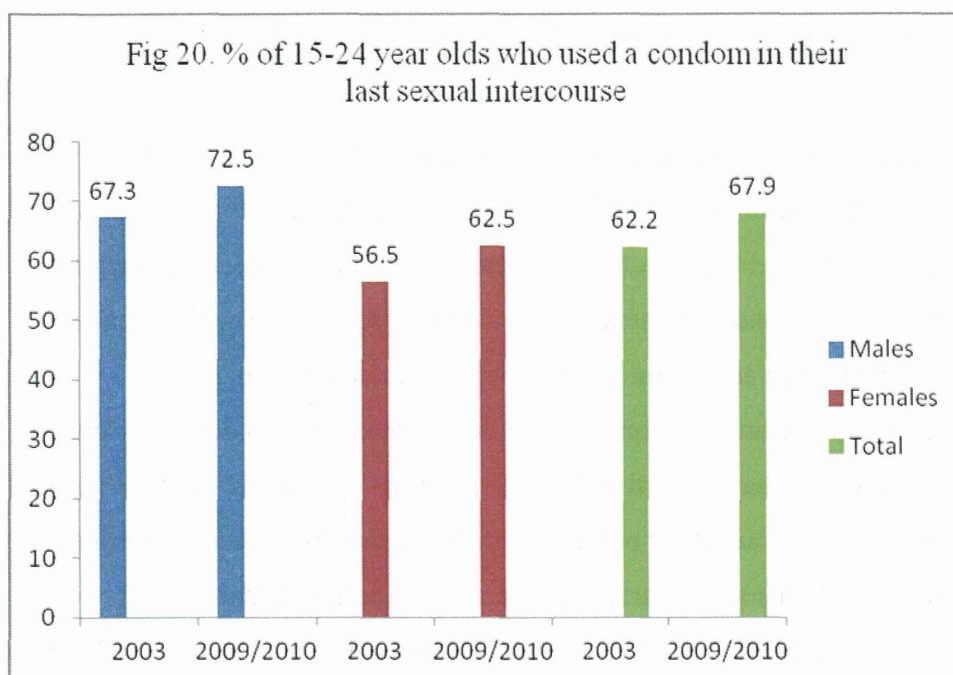


Table 12. Condom use of sexually active 15-to-24 year olds by sex (%)

	Total	
	2003	2009/2010
Males	67.3	72.5
Females	56.5	62.5
Total	62.2	67.9
Age group		
15-17	78.5	79.9
18-19	67.6	73.7
20-24	56.4	62.8

### **Section 3: Intervention to improve risky sexual behaviors**

#### **Outline of the study “Sexual behavior in context: a global perspective” [4]:**

Considering the negative implications and the diversity of risky sexual behaviors, a range of strategies are needed to protect sexual health and promote safe sex practices.

There is a spectrum of approaches to sexual behavior interventions targeting one or more sexual risk behavior(s) among the general or specific population groups.

Obviously, sexual behavior interventions have to be informed by broader determinants or drivers of risky sexual behaviors if they have to be effective. Sexual health is a social issue, and voices have been raised for public health interventions to account for the social context within which social intercourse occurs. It is believed that such intervention(s) should go beyond mere provision of information in order to be effective. Previous studies assessing the effectiveness of interventions designed to encourage safer sexual practices have shown increased effectiveness where information was combined with other strategies such as skill building and counselling, as the use of condoms and safe sex negotiation skills, and when all is packaged into behavioral change theories, and where several delivery methods are used, and where the need for sustainability are taken into account.

Evidence also indicate that sexual behavior strategies that focus exclusively on expectation individual behavior change are unlikely to produce substantial improvements in sexual-health status in poor countries where factors beyond individual controls (Poor livelihood) may restrict safer sexual practices. On the other hand, in developed countries, personal choice is greater than in poorer countries, yet power inequalities persist [4].

Settings and target populations for sex behavior interventions are very diverse. Men have been successfully reached out in occupational context with subsequent in sexual-risk reduction. As for young people, schools have been the most and commonly used setting to address sexual risk behaviors. There are evidences on the effectiveness of school-based sex education, and the fear that such education could result into increased sexual risk-taking behavior did not prove to hold.

Systematic reviews have shown school-based sex education to lead to improved awareness of risk and knowledge of risk reduction strategies, increased self-effectiveness and intention to adopt safer sex behaviors, and to delay, rather than hasten, the onset of sexual activity.

Broad-scale strategies to encourage behavior change, with tools such as mass-media communication have demonstrated greater effectiveness in increasing awareness and knowledge, and in reducing high-risk behavior, and have used social-marketing techniques targeting individuals based on their lifestyles, values, and risk status rather than demographic characteristics alone. Risk reduction messages need to take account of the diverse reasons for having sexual intercourse and for changing sexual behavior.

Sexual behavior-change interventions crafted based on individual needs, context, and circumstances is very essential. For example, interventions aiming to delay first sexual debut among adolescents may not be effective in settings where first sexual relations are forced, where sexual abuse of adolescent is common, and where financial circumstances force young people to sell sex. It is also shown that many men who have sex with men also have sex with women, and different preventive strategies might be used for these two behaviors. Broader sexual repertoires need to be taken into account.

An important point to consider in planning a sexual behavior intervention is that people seldom engage in only one risky behavior; they are most likely to have multiple sexual risk behaviors. Thus, interventions that target multiple risky sexual behaviors are likely to be more effective compared to those targeting single behaviors.

Evidence from the literature also indicate the importance for individual-based interventions to address social norms as the effects of behavior change interventions may not be sustained over time if participants return to an unsupportive environment.

On the other side community-based interventions have demonstrated their effectiveness in mobilizing local groups in support of preventive strategies. Important stakeholders in community mobilization are the homosexual communities. The rapid response of homosexual communities to the HIV/AIDS epidemic in developed countries had played a crucial role to the pre-existence of non-governmental organization infrastructure, and