EMERGENCY CONTRACEPTION AMONG TEENAGERS IN SWITZERLAND: a cross-sectional survey on the sexuality of 16-20-year-olds

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Abstract:

Purpose: To describe and analyze emergency contraception (EC) awareness and use among *sexually active* Swiss teenagers.

Methods: Anonymous computerized questionnaires were distributed to a national representative sample of 4283 in-school adolescents (aged 16 to 20 years) in high schools and professional centers. Young people who were sexually active (51.5% of the sample: 1058 girls and 1073 boys) responded to questions on EC awareness and use and on sexual perception, attitude and behaviors. Univariate analyses and multiple regression analyses were used to describe EC awareness and use and their correlates.

Results: Most of the sexually active girls (89.3%) and boys (75.2%) knew of the existence of EC. Of girls, 20% reported having used EC, and the majority of them used it only once (64.1%) or twice (18.5%). ***EC awareness*** was positively associated with the father's level of education (girls: odds ratio:5.18), and the scholastic curriculum of the respondent. Gender differences in the correlates of EC awareness demonstrate that girls who had a confidant, or a group of friends or boys of Swiss nationality and those who have had the opportunity to discuss the issue of contraception declare greater awareness of EC. ***EC use*** was higher among girls who lived in urban areas (odds ratio: 1.91) and occasionally had unprotected intercourse. We did not find any significant difference in the profile of multiple vs. one-time users.

Conclusion: EC awareness and use should be improved through better information and accessibility, especially among teenagers who place themselves in at-risk situations.

Keywords: Adolescents, Emergency contraception, Gender differences, Teenage pregnancy prevention, Switzerland.

Introduction

Adolescence is a key period for the initiation of sexual behavior and first use of contraception. Most of the youth (86.5%) in Switzerland [1] use a contraceptive method at first sexual intercourse, but a significant percentage of young people do not use contraception at subsequent sexual intercourse [1-11]. Pregnancy prevention through the effective use of contraception at sexual intercourse is the best preventive strategy, but in case of contraceptive failure (lack of contraception, condom failure or disruption in oral contraception) emergency contraception (EC; also called "postcoital contraception" or "morning-after pill") has been used for about 20 years in European countries and especially in Switzerland.

Different methods are available [7], but the most widespread method now is the Yuzpe regimen consisting in estroprogestogens: 200 μg of ethinyl estradiol and 1 mg of levonorgestrel (or 2 mg of norgestrel); the dose is divided in two and given 12 hours apart and the first dose is administered within 72 hours of unprotected intercourse [12,13]. Recently progestogens alone (2 pills containing 750 μg levonorgestrel, administered 12 hours apart within 72 hours of unprotected intercourse) proved its effectiveness [14]. In addition, Mifepristone (RU 486), an abortive method, has been introduced as EC [15-17]. Finally, an intrauterine device may also be used as EC but is not considered for adolescents because of risk of infection and subsequent infertility risk [18,19].

In Switzerland, the only registered hormonal method is the Yuzpe regimen, marketed for about 15 years. Recently introduced in France, progestogens alone are not yet available as EC on the market. In Switzerland, EC is not available over the counter and is mostly delivered in emergency gynecology clinics at hospitals, in family planning clinics, and by gynecologists and general practitioners in private practice. In Switzerland, family planning clinics are known to be widely accessible to and frequently visited by teenagers [20]; EC sets cost about $7 and may be prescribed to young girls before 18 years without parental consent. Although there is no clear-cut age limit for decision capability in Switzerland, a variety of clinical decisions or

treatments is permitted by law for 13- to14 year-olds. In almost all regions of the country, sex education classes including information on prevention and services are taught once or twice during compulsory school years.

Condom failure is one of the reasons most frequently cited by young people asking for EC [21-24]. Since the 1980s and the beginning of the AIDS epidemic, prevention campaigns have promoted condom use, which has dramatically increased among young people in Switzerland [25]. They have been using condoms more often than their older counterparts but problems like slippage and breakage may occur [1,26,27], some professionals even suggesting that condom failure might explain a growing percentage of unplanned pregnancies [9,28-31].

The other reasons for using EC are related to the failure to comply with the proper administration of the contraceptive pill and the absence of contraception [22,24,32].

In Switzerland, as in most of the western European countries, EC now has its place among the contraceptive strategies available to adolescents. The emerging issue in this matter is the recurrence of EC use: Some healthcare providers might fear that EC might be used as a routine contraceptive method rather than a mere backup emergency method only. We could hypothesize that one-time users are informed, sensible and not prone to risk-taking during sexual intercourse but experience condom failure occasionally as a result of bad luck, and consequently get EC to protect themselves. In contrast, multiple users are used to taking risks and use EC as a routine contraceptive method. Are some adolescent girls repeating EC use and are they different from those using EC only once? What can be done in terms of counseling skills and healthcare provider training to prevent EC abuse? How can prevention programs and sexual planning information be improved to try to improve access to EC and to reduce emergency cases?

The purposes of this paper are: (a) to measure the level of EC awareness and use among Swiss teenagers; (b) to determine if one-time users differ from multiple users, the former having taken a risk by chance, and the latter being used to risk behavior;

and (c) to describe the factors related to EC use among girls and to discuss the possible improvements in term of public heath objectives and programs.

METHODS

The survey on sexual perceptions, attitudes and behaviors was conducted in 1996 by the University Institutes of Social and Preventive Medicine in Lausanne and Zurich, with the collaboration of the Department for Social Action of Tessin [1]. The students and apprentices completed questionnaires on laptop computers installed in one of the classrooms of the school or professional center they attended.This survey was conducted in Switzerland's three regions, administered in the three languages (German, French and Italian), targeting a representative sample of 4283 in-school adolescents, aged 16 to 20 years; participants were selected through a one-step cluster sampling procedure, stratified by educational background, grade, and region. In Switzerland adolescents in this age range are either in high-school (30%, referred to as students) or in apprenticeship (70%, in applied technical training programs with a theoretical course 1 day per week, referred to as apprentices).

The research protocol was approved by the Ethical Commission of the Medical Faculty at Lausanne University. In the classes, a professional from the Sexual Health Education Service or from the school's health service informed the students about subject participation and consent, described the objectives of the survey and provided the teenagers with the addresses of services where they could seek assistance. Written informed consent to participate in a survey is not requested by Swiss law for persons older than 14 years. The questionnaire was anonymous, subjects were free to participate and not to answer any question which seemed too embarrassing. During the survey four youths refused to participate. The nonparticipant rate was assessed at 5%, according to class registers. Questionnaires from youth under 16 or over 20 and four left almost blank were excluded from analysis. Of the 4283 completed questionnaires, 7.6% (326) were interrupted before completion but contained almost all the responses. Therefore the decision was made

to keep them in the database [33]. The research methodology is published elsewhere [33].

The questionnaire consists of various modules that the adolescents answered according to their experiences. The main data fields treated included: socio-demographics (socioeconomic status based on father's education), lifestyles, menarche and pubarche, attitudes towards sexuality, and sexual victimization. Only young people having had sexual intercourse (sexual intercourse with penetration) answered questions about their first sexual relationship (FSI) either stable or occasional, emergency contraception, pregnancy, and sexually transmitted disease. The question about emergency contraception was: "Are you aware of the morning-after pill?" (the morning-after pill is the most commonly used term in Switzerland; EC is not used in the population). Questions asked to the girls were: "Have you ever used it? How many times?"; Questions asked to the boys were: "Has one of your partners ever used it? How many times?".

A total of 2131 sexually active adolescents answered these questions (1058 girls and 1073 boys). Our analysis only included the questionnaires of these adolescents. Using an SPSS (SPSS, Inc., Chicago, IL) data file, we first performed univariate analyses to compare the characteristics of adolescents aware and unaware of EC, and adolescents having used and not having used EC. Multiple logistic regression was then performed to select the variables independently associated with awareness and use among the variables identified by p value < .05 in univariate analyses.

RESULTS

Sample characteristics are described in Table 1. The sample included 51.6% males and 48.4% females, a majority of them aged 17 and 18 years. Nationality, place of residence, proportion of students vs. apprentices and the parental status are similar to the characteristics of the population in this age range in Switzerland [34].

(insert Table 1)

Frequencies:

EC awareness was higher among girls than among boys (Table 2): Only 10% of girls did not know about it, whereas 25% of boys did not. There was no difference between EC use reported by girls and EC use declared by boys. The majority of users reported only one or two uses.

(insert Table 2)

Awareness:

Variables associated with awareness were different between boys and girls (Table 3). Age between 16 and 20 years (not mentioned in Table 3) did not result in any difference in awareness. Even though 90 % of girls and boys reported having had one or more sex education classes during their school years, their attendance was not related to a higher awareness of EC. However, having had the opportunity to discuss sexual issues with friends or healthcare providers was associated with a better awareness of EC. Failure to use contraception or having had difficulties encountered in the use of contraception was not correlated with any difference in EC awareness.

(insert Table 3)

Use:

We only analyzed the girls' reporting of EC use and not the boys' statement of EC use by their partners, which appeared to be less accurate. Table 4 indicates differences between non-users and users. We did not find any significant differences between girls who used EC only once and girls with repeated EC use and therefore did not include the results in the table. Sociodemographic characteristics, discussion

with a healthcare provider, planning of first sexual intercourse, elements of sexual behavior and contraceptive use were related to the use of EC.

(insert Table 4)

Logistic regression:

Factors independently associated with awareness of EC are listed in Table 5 and show some differences between girls and boys. Among boys born in a foreign country, EC awareness was lower. However, the opportunity to talk about sexual issues to a healthcare provider and to discuss pregnancy risk with their partner before first sexual intercourse was associated with higher awareness of EC. The respondent's curriculum (high school vs. apprenticeship) improved the girls' awareness of EC. Other factors independently associated with EC awareness in girls were the opportunity of discussion about sexual issues with peers and the absence of oral contraceptive method at first sexual intercourse

(insert Table 5)

The use of EC was independently associated with living in urban areas, having regular sexual intercourse, having more than 3 partners, not used the pill at FSI, AIDS prevention not recognized as a reason for using a contraceptive method, history of having had a pregnancy test and considering to ask for a human immunodeficiency virus (HIV) test (Table 6).

Logistic regressions performed on one-time and multiple EC use (vs. non-use) in this population did not show any significant differences in risk behavior or lack of contraception use that could confirm our hypothesis: multiple use is not especially related to cumulated risk behaviors (Table 6).

(insert Table 6)

DISCUSSION

Our results are consistent with the results of studies conducted in other European countries during the same period: EC awareness varies between 75% and 95% in adolescents, women in general, or women seeking termination of pregnancy [35-40]; EC use varies from 10% to 40% depending on the studies [36-41]. Whereas awareness hardly exceeds 40% among the general population in the United States or Canada [8,42-46], health professionals who are informed about EC usually prescribe it a few times a year and rarely counsel their patients about it [7,8,42-47]. The reason is that Yuzpe regimen was only recently approved by the U.S. Food and Drug Administration as an effective and safe EC, and that no contraceptive manufacturer was interested in its marketing [48-50]. In Kenya, Mexico and Nigeria awareness hovers around 20% [51-53].

Our results show that boys are less aware of EC than girls. This difference can partly be explained by the declaration bias between girls and boys: boys often under-stated their knowledge in order to model themselves to social desirability [54]. Usually, boys have fewer opportunities to receive information and counseling about sexuality, contraception and prevention as they do not need to consult a physician to get their contraception. Our study emphasizes that when boys get the chance to discuss sexual issues with their partner or with a health professional, their awareness improves significantly.

Our results emphasize the influence of sociodemographic variables on the level of awareness of EC: respondent’s type of curriculum, father's level of education and foreign origin for boys. Students have a better awareness of EC than apprentices. Other authors report that the higher the education, the higher the knowledge, but also stress that this knowledge is often basic and lacks specificity such as the time limit for use of EC [35-41]. Our study did not allow us to corroborate this finding. Gender differences in variables associated with EC awareness relate to nationality for boys, prior use of contraception for girls, and the type of communication on

sexual issues for both. Although girls are used to discussing reproductive health issues, especially if they have a confidant or a group of friends, boys have fewer opportunities to do so. Girls also may discuss sexual issues when visiting a physician because of menstruation problems or the need for a contraception prescription [20]. Boys might benefit from this information and improved communication skills when discussing it with their sexual partner.

Immigrant boys reported a lower level of awareness of EC than their Swiss counterparts. This could be explained by the possibility that they had not attended primary and secondary school in Switzerland and have had less opportunity to attend sex education classes. As apprentices, they are less literate and sometimes not fluent in the local language and did not benefit from health prevention campaigns or information intended for the public at large. Moreover, they may not have been informed by their families because of cultural differences [55].

Not surprisingly, our results show that EC use is independently related to risk-taking in sexual behavior such as lack of planning at first sexual intercourse, a history of pregnancy testing or awareness of consequences of unprotected intercourse through HIV testing intention. It is also related to a lack of oral contraception, which probably underlines the perceived risk of condom failure [1]. The contraception pattern of the sexually active respondent shows that condoms are preferred at first intercourse with a new partner, and oral contraception alone being used after the onset of a steady relationship. It seems that even in a steady relationship, only 67.6% of girls and 59.7% of boys reported consistent use of contraception in 100% of sexual intercourse, whereas 75% claimed to have used a condom at first or at last casual intercourse [1]. This might explain why EC use is not associated with casual sexual intercourse frequency, a situation in which condom use is rather high. This might suggest that EC is not only used by a selected number of young people at risk but also in special circumstances with a new partner or in a steady sexual relationship.

EC users are thus girls whose risk-taking is accidental owing to their failure to take the pill or to condom failure.

Moreover, we did not find any significant difference between the factors related to multiple use and the variables related to one-time users. In our results, 64% of girls used EC only once and the 10% who had repeated it do not appear to use EC as a substitute for regular contraception. This result was also described in other studies [21-24,35-41]. Harvey et al. [23] demonstrated that 97% of the women would use EC only in emergency situations, only 2% of women claimed that they would use it as a usual contraception. Glasier and Baird [56] reported that women having EC at home do not use it more than women who have to consult to get it. As shown by Kosunen et al. [38], EC one-time users became more responsible and even often used a dual method of contraception after a first use of EC.

Community services such as family planning clinics offer low fees, improved accessibility, confidentiality and access to adolescents with their friends or partner. Immigrant teenagers or refugees who do not speak the local language and did not attend sex education classes at school should receive appropriate counseling and information in their language from such community centers.

Limitations:

Our study did not investigate EC awareness among sexually inactive teenagers but Graham et al. [35] did not find any differences between sexually active and sexually inactive adolescents. We acknowledge several other limitations of the survey such as its cross-sectional design and the lack of specific investigation on the degree of awareness, precise knowledge about EC or circumstances of use. We are also limited in the assessment of the time sequence of the different behaviors. We cannot conclude, for example, whether girls who had previously been pregnant tended to use EC more often or took EC before or after pregnancy.

The response rate in this survey is high and the use of a computerized questionnaire is more attractive to youth, improving the sense of confidentiality among respondents

who may answer questions often perceived as embarrassing without any fear of judgment or shame [57,58]. A representative sample of in-school adolescents allows us to extrapolate the estimates to 75% of the 16-20 year-old population. The population-based survey includes both boys and girls and is not limited to female patients of a clinic where they receive contraception or pregnancy termination. This study does not inform us about the 25% of adolescents who are employed or who are dropouts from school or training programs at this age. A previous study has demonstrated that dropouts took more risks, were more often sexually active but that girls were using contraceptive methods as frequently as their in-school counterparts [59].

Implications:

Although the Swiss pregnancy rate among adolescents is one of the lowest in the industrialized world (4.6 births per 1000 women aged 15-19; in comparison, the fertility rate in the United States reached 53.6 births per 1000 in 1990 [60,61]), it is essential to prevent unplanned adolescent pregnancy and subsequent possible abortion. The Swiss Stop-AIDS campaign has proven to be efficient to improve condom use, especially among young people, but as young people are anxious about pregnancy risk and condom failure, prevention of unwanted pregnancy and emergency contraception should be associated with AIDS prevention directed to male and female. Information through national and local strategies should aim to increase not only awareness, but also specific knowledge and use of EC as part of a general family planning and contraception use strategy. Such issues should be included in sex education programs at school and in community-based programs for immigrant or street youths.

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Table 1 Characteristics of the sample:

Characteristics	Sexually active		
	Female	Male	Total
	%	%	%
N=	1058	1073	2131
Age (yr)			
16	8.4	4.7	6.5
17	29.8	23.7	26.7
18	33.2	38.2	35.7
19	21.9	24.1	23.0
20	6.7	9.4	8.0
Nationality			
Swiss	82.1	77.7	79.9
Non-Swiss	17.9	22.3	20.1
Residence			
urban area	41.4	49.0	45.2
rural area	58.6	51.0	54.8
Parents			
together	73.6	78.2	75.9
divorced or separated	22.2	17.1	19.7
father or/and mother dead	4.2	4.6	4.4
Curriculum			
apprenticeship	69.0	74.7	71.9
school	31.0	25.3	28.1
Outcomes in Sexual issues			
pregnancy history	4.8		
STD treatment history	6.9	3.2	5.0

Table 2 Frequencies of awareness and use of emergency contraception among girls and boys

		%	95% CI	n
Awareness				
Total		82.2	80.6-83.8	2131
Girls		89.3	87.4-91.2	1058
Boys		75.2	72.6-77.8	1073
Use				
Girls		20.0	17.6-22.4	1057
Boys thought about their partners' use		17.7	15.4-20.0	1071
Number of uses				
Girls	1	64.1	58.0-71.0	136
(n = 211)	2	18.5	13.3-23.7	39
	3	6.2	2.9-9.5	13
	>3	10.9	6.7-15.1	23
Boys report of their partner's number of uses	1	42.6	35.6-49.6	81
(n=172)	2	17.9	12.4-23.4	34
	3	9.5	5.3-13.7	18
	>3	30.0	23.5-36.5	57

Table 3 Significant correlates of EC awareness of girls and boys subgroups.

Significant factors	Girls' Awareness n= 1057			Boys' Awareness n= 1071		
	(%)	95% CI	p	(%)	95% CI	p
Sociodemography						
Education Curriculum						
In-school	97.6	95.2-99.3	**	82.5	77.6-87.4	**
Apprentice	85.5	82.7-88.3		72.6	69.0-76.2	
Socioeconomic status: father's degree						
Higher education	97.5	94.9-100.1	**	85.6	80.3-90.9	**
Mandatory school, apprenticeship	87.9	85.6-90.2		72.8	69.3-76.3	
Living area						
Urban	91.7	89.0-94.4	*	76.2	72.0-80.4	
Rural	87.6	84.8-90.4		74.0	69.7-78.3	
Place of birth						
Switzerland	89.5	87.4-91.6		76.8	73.7-79.3	**
Foreign country	88.3	82.4-94.2		63.0	52.4-73.6	
Possible discussion about sexual issues						
Friends' group						
Yes	90.3	88.3-92.3	*	75.4	72.4-78.4	
No	80.7	76.6-97.4		70.0	53.4-86.6	
Confidant						
Yes	89.9	87.9-91.9	*	76.3	73.2-79.4	*
No	79.3	64.9-93.7		67.7	57.4-78.0	
Consultation at GP or family planning						
Yes	90.0	87.8-92.2		83.2	76.3-90.1	*
No	86.9	82.2-91.6		73.9	70.6-77.2	
Sexual life						
Sexual intercourse frequency						
Regular	91.0	87.7-92.5	*	84.4	80.6-88.6	**
Once or occasional	86.4	82.7-90.0		69.4	65.2-73.6	

Relationship length before FSI[1]						
< 6 months	90.9	88.6-93.2	*	78.2	74.3-82.1	
> 6 months	83.5	78.4-88.6		75.2	64.6-85.8	
Attitude						
Peer influence in decision making FSI						
No influence	90.5	88.5-92.5	*	74.6	69.1-80.1	
Influence	80.5	72.8-88.2		75.5	72.5-78.5	
FSI planned						
Yes	90.0	87.8-92.2		77.9	74.6-81.2	*
No	86.8	82.1-91.5		69.2	62.9-75.5	
Use of contraception during FSI						
Condom						
Yes	90.6	88.5-92.7	*	75.6	72.2-79.0	
No	85.4	80.8-90.0		73.5	67.2-79.8	
Pill						
No	90.8	88.7-92.9	*	75.7	72.2-79.2	
Yes	84.6	79.8-89.4		74.1	68.3-79.9	
Withdrawal						
Yes	88.8	78.3-99.3		69.2	54.6-83.8	
No	89.4	87.3-91.5		75.7	72.2-79.2	
No contraception						
Yes	83.1	69.8-96.4		71.4	59.2-83.6	
No	89.7	87.7-91.7		75.6	72.5-78.7	
Trouble with contraception						
Condom breakage or slippage						
Yes	90.3	84.8-95.8		80.2	69.0-91.4	
No	90.7	88.3-90.3		75.1	71.5-78.7	
Reported reason for using a contraceptive method						
To prevent pregnancy						
Yes	90.1	88.1-92.1	*	75.9	72.6-79.2	
No	83.5	76.3-90.7		72.6	65.5-79.7	
To prevent AIDS						
Yes	91.7	89.0-94.4	*	74.1	69.5-78.7	
No	87.6	84.8-90.4		76.2	72.3-80.1	

Discussion before FSI						
About pregnancy						
Yes	88.7	86.2-91.2		79.9	75.8-84.0	*
No	90.4	87.2-93.6		71.8	67.6-76.0	
About previous sexual risks						
Yes	88.5	85.0-92.2		83.1	77.5-88.7	*
No	89.4	86.6-92.2		75.5	71.0-80.0	
Consequences						
Consider to ask for HIV test						
Yes	93.3	90.9-95.7	**	78.4	74.3-82.5	*
No	86.5	83.6-89.4		73.0	69.0-77.0	

1 FSI = first sexual intercourse

* $p < 0.05$

** $p < 0.01$

Table 4 Significant correlates of EC use:

Significant factors		%	95% CI	p
Sociodemography				
Place of birth	Foreign country	27.3	10.7-43.9	*
	Switzerland	19.0	13.2-24.8	
Living area:	Urban	26.7	18.6.34.6	**
	Rural	15.3	5.2-25.4	
Matrimonial status:	separated or divorced	26.9	14.6-39.2	**
	married or deceased	18.0	11.8-24.2	
School				
Repeating a year:	Yes	24.6	13.1-36.1	*
	No	18.2	11.6-24.8	
Possibility of speaking about sexual life				
Regular consultation with a gynaecologist:	Yes	23.7	16.8-30.6	**
	No	15.5	3.5-27.5	
Sexual life				
Sexual intercourse frequency:	Regular	23.1	16.4-29.8	**
	Once or occasional	14.6	1.6-27.6	
Number of partners since FSI:	> 3	35.9	22.8-49.0	**
	< 3	17.2	11.2-23.2	
Age at FSI:	< 14 y	37.4	21.9-52.9	**
	> 14 y	17.9	12.1-23.7	
Attitude				
FSI planned:	No	23.3	13.5-33.1	*
	Yes	17.9	10.9-24.9	
Use of contraception during FSI				
Pill	No	22.5	16.4-28.6	**
	Yes	11.8	0.3-23.3	

Withdrawal	Yes	28.6	10.1-47.1	*
	No	19.1	13.4-24.8	
Reported reason for using a contraceptive method				
To prevent AIDS	No	22.6	15.6-29.6	*
	Yes	16.4	4.9-27.9	
Consequences				
Worried about pregnancy after FSI	Yes	23.7	13.1-34.1	*
	No	18.1	11.2-25.0	
Ever used pregnancy test	Yes	34.6	23.8-45.4	**
	No	15.7	9.4-22.0	
Ever been pregnant	Yes	54.5	26.2-82.8	**
	No	19.2	13.7-24.7	
Think to ask for HIV test	Yes	27.0	19.0-35.0	**
	No	15.1	5.0-25.2	

1 FSI = first sexual intercourse

* $p < 0.05$

** $p < 0.01$

Table 5 Logistic regression analysis of girls' and boys' awareness of EC:

Girls'awareness N= 1050		Odd Ratio	95% CI
Sociodemography	In high school	5.18	2.45-11.01
	Father with an academic degree	2.92	1.02-8.34
Information	Confidant	2.28	1.10-4.73
	Group of friends	2.01	1.15-3.51
Use of contraception during FSI	No pill at first sexual intercourse	2.01	1.27-3.16
Reported reason for using a contraceptive method	To prevent pregnancy	2.01	1.13-3.57
Attitude	No peer influence in decision making to have first sexual intercourse	2.11	1.25-3.55
Consequences	Considers to ask for HIV test	2.21	1.40-3.50
Boys' awareness N=1057			
Sociodemography	In high school	1.53	1.05-2.21
	Father with academic degree	1.82	1.16-2.85
	Born in Switzerland	1.44	1.04-2.2
Information	Has consulted GP or family planning	1.79	1.04-2.76
Discussion before FSI*	Discussion about pregnancy before FSI	1.49	1.10-2.01
Attitude	FSI planned	1.42	1.05-1.94

* FSI: first sexual intercourse

Table 6 Logistic regression analysis for once-users, multiple-users and users in general:

Once-users (N=974)		Odd Ratio	95% CI
Sociodemographic	Living in urban area	1.85	1.27-2.70
First love affair	< 14 years old	1.83	1.06-3.17
	>3 partners	1.68	1.03-2.74
Contraception	No pill at first sexual intercourse	1.97	1.16-3.34
Risk	Ever had a pregnancy test	2.40	1.61-3.59
Multiple-users (N=830)			
First love affair	Regular sexual intercourse	2.96	1.51-5.80
Attitude	FSI unplanned	1.89	1.09-3.28
	FSI unconscious	1.98	1.10-3.58
Risk	Ever been pregnant	5.13	1.7-15.43
	Think to ask for HIV test	2.82	1.62-4.93
Users in general (N=966)			
Sociodemographic	Living in urban area	1.91	1.37-2.66
First love affair	>3 partners	1.69	1.12-2.57
	Regular sexual intercourse	1.75	1.21-2.54
Attitude	FSI unconscious	1.51	1.02-2.21
Contraception	No pill at first sexual intercourse	2.03	1.30-3.19
	Contraceptive not to prevent AIDS	1.53	1.09-2.16
Risk	Ever had a pregnancy test	2.14	1.49-3.07
	Think to ask for HIV test	1.67	1.19-2.36