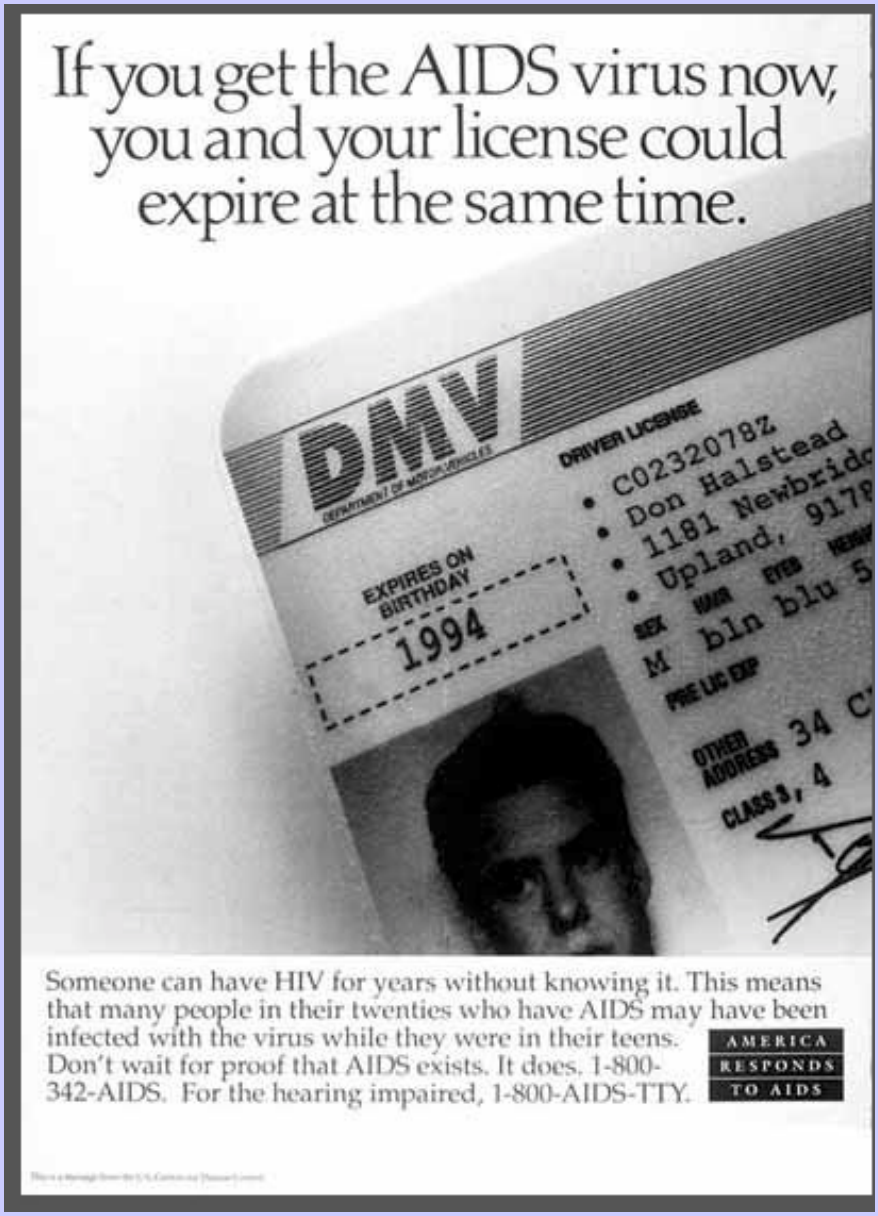
HIV and STD Knowledge Among Secondary School Students in Galway City



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HIV AND STD KNOWLEDGE AMONG SECONDARY SCHOOL STUDENTS IN GALWAY CITY

WORKPLACEMENT REPORT

BY

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EXECUTIVE SUMMARY

With all the deaths and increasing number of HIV and other sexually transmitted diseases, sexual behaviours remain relatively unchanged. The "SLAN" survey (Friel et al 1999) has reported that 29% of children between the ages of 18-34 'sometimes use contraceptives' and of those adults who are sexually active condom use accounts for 40% of contraceptive use.

The unchanged sexual behaviour of the teenagers may be due to lack of adequate knowledge about sexually transmitted diseases or lack of access to adequate sexual health information to make healthier choices. It is against this background that this study was undertaken. This research aimed to assess the knowledge of school going teenagers in Galway city on HIV and other STDs.

The study comprised a self-administered questionnaire to students in transition class. The schools that participated in this study were randomly selected from the list containing all secondary schools in Galway city. Out of five intended for the study only three schools participated. A total of 57 students from the three schools participated in the study.

In general the knowledge of the students is higher on HIV than the other five sexually transmitted diseases. This may be due to the high coverage of AIDS education in schools when compared to other sexually transmitted diseases. Therefore there is a need to increase sex education coverage on other sexually transmitted diseases in the schools.

Sexual orientation is the least covered (38.5%) programme in the schools. Its coverage should be increased to enable students to understand their sexuality, enhance self-esteem and exercise protective sexual behaviours.

Frequency of sex education classes should be increased to allow students to improve their knowledge about their sexuality and sexually transmitted diseases.

Participants advocated for open discussion and also inviting specialists in various diseases to give health advice at schools. The respondents also want the sex education to be covered especially in the 2nd and 5th year classes. 1.8% wanted it to be covered by TV and Video while a similar

percentage were interested in the inclusion of contraceptives in the programme. This suggested the need for a comprehensive sex education programme at schools. School community links should also be strengthened so that services of specialists in the communities can be available to the schools.

Further research is required focusing on the knowledge attitude and sexual behaviour of teenagers on HIV/AIDS and other STDs. In addition the effectiveness of informal sources of information such as those from parents and peers should be assessed.

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1 INTRODUCTION

1.1 Background

In developed countries there has been a significant rise in chronic and life threatening conditions/diseases, which are primarily caused by our lifestyle behaviours. In particular, sexual behaviour is a key cause of concern due to its contribution in the increase of sexual transmitted diseases in the recent years. Sexually transmitted diseases (STDs) are extremely prevalent among young people (Ellickson, Lara, Sherbourne, & Zima 1993) and are continuing to increase. For example in sub-Saharan Africa more than a quarter of young and middle age adults are infected with AIDS. The status of HIV in most countries is uncertain because of the inadequate data on the prevalence on HIV risk behaviours (MAP, 1998). The incubation period between HIV infection and AIDS diagnosis is many years. Therefore, a large number of people who are reported with AIDS in their 20s became infected with HIV as teenagers.

1.2 HIV/AIDS

In United State AIDS is still the sixth leading cause of death among 15 to 20 years of age. The report of an sexual transmitted infection (STI) survey among adolescents in USA indicated that one in every five adolescents would have acquired an STD by the time they are twenty-one years old (Ellickson et al 1993). World wide it is reported that young people are the major risk group for HIV transmission and other sexually transmitted diseases (Ellickson et al 1993).

1.2.1 Transmission

The disease is transmitted through semen, bodily fluid or blood contact. High rate of promiscuity, uncontrolled prostitution and ignorance are the main causes of the transmission of HIV virus (Sarafino, 1998). A person infected with the HIV virus can live for 5 to 10 years before the disease AIDS will manifest itself. People who are infected may look healthy and might not even know that they are infected. These people can be a potential danger to the population.

In the period between infection with HIV and diagnosis of AIDS, the victim's immune system deteriorates producing a variety of recurrent systems such as fever, diarrhoea, fatigue, and

swollen lymph. Other signs such as kaposi's sarcoma-mouth (figure1.1) and kaposi's sarcoma-face (figure1.2) may appear in established cases of AIDS.

Figure1.1 Koposi's sarcoma-mouth

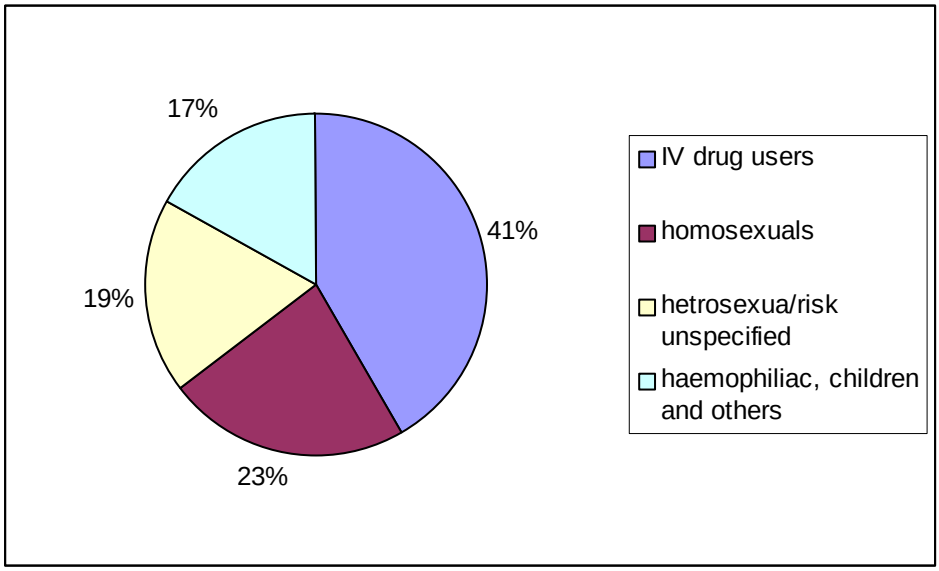
Figure 1.2 Kaposi's sarcoma-face

In Europe each year 30,000 people are infected with HIV. In 1998, a total of 201,593 cases were reported in the European union. Sixty percent of those cases were known to have died. There was a reduction in the incidence rate between 1997 to 1998 of 21%. The highest incidence of cases in Europe is in Spain (93.3 cases per million population) and the lowest in Finland (3.2 cases per million population) while Ireland accounted for 3.6 cases per million population (Department of Health 2000).

In Ireland number of people diagnosed as HIV positive has been fluctuating since 1986 but the highest, number was registered in 1999 (Kiely 1999). Statistics have shown that up to December

2000, 2195 people in Ireland had tested HIV positive. This represents an increase of 58 positive cases since the end of September 1999. Of the total number of people with HIV (see figure1.3), IV drug users represent 41.6%, homosexuals 22.7%, heterosexuals/risk unspecified 18.8% and the balance (16.9%) is made up of haemophiliacs, children and others (Department of Health 2000).

Figure 1.3 Positive HIV cases in Ireland up to December 2000.



Statistic on cases of AIDS show an increase by 9 new cases and 5 deaths from 31st July to 31st December 1999 (see appendix III for a revised list of AIDS cases and deaths up to 31st December (1999). Figure 1.4 and 1.5 show distribution of cases and deaths among different groups.

Figure 1.4. AIDS Cases in Ireland from July 31st 1999 to December 31st 1999.

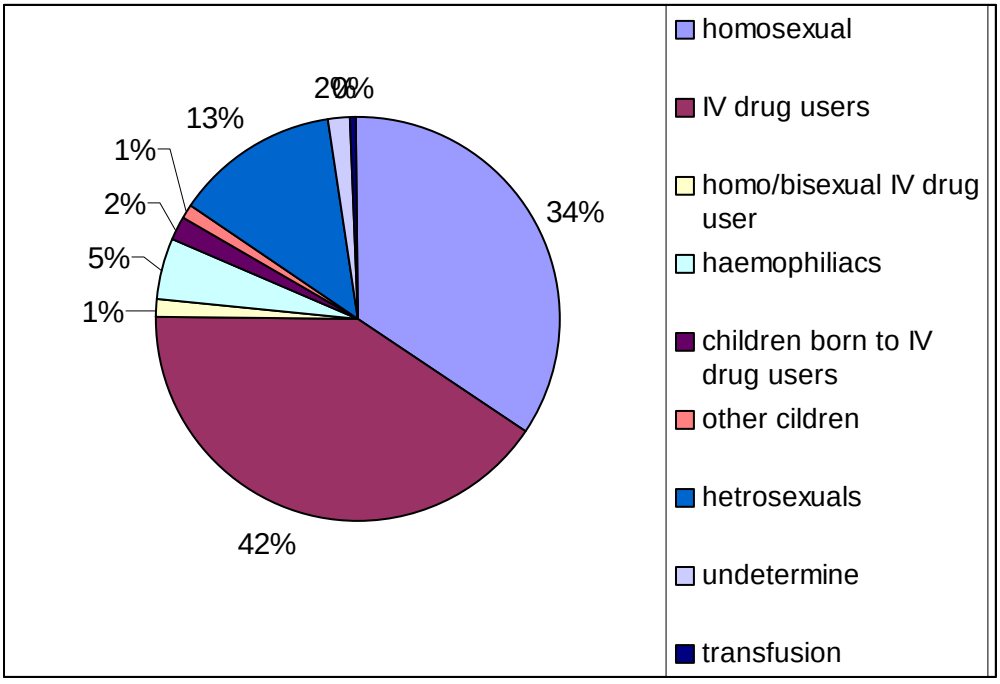
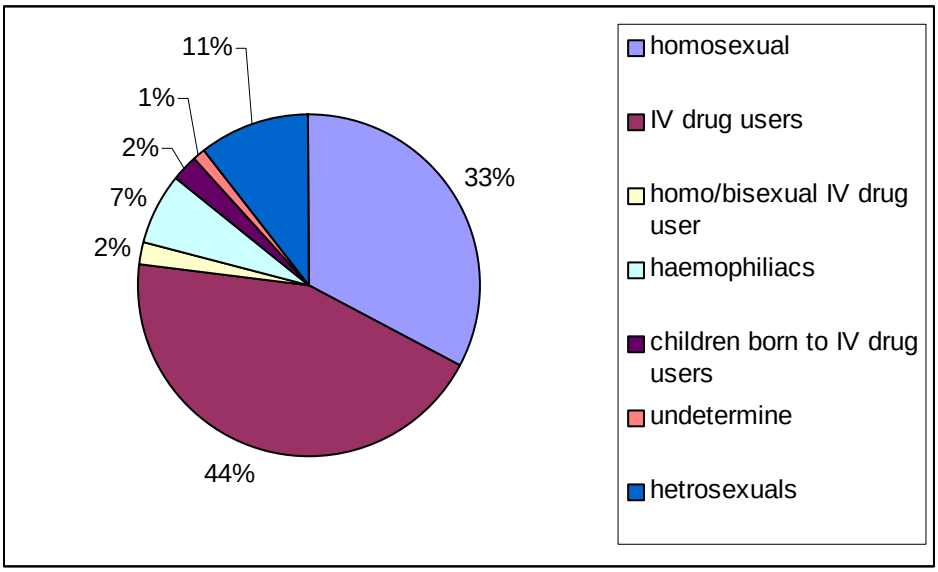


Figure 1.5. Deaths due to AIDS in Ireland between July 31st to December 31st 1999.



1.3 Other Sexually Transmitted Diseases

Microbial agents the commonest of which are bacteria and virus cause sexual transmitted diseases. Bacterial STDs such as chlamydia can be cured, unlike viral STDs, genital herpes and genital warts (Moore & Rosenthal, 1996), which may be treated but cannot be cured.

1.3.1 Genital herpes

Genital herpes is characterised by an extreme itching or burning pain of the affected areas of the genital parts. The clinical signs include appearance of erythema, which is followed by cluster of small vesicles on the genital parts (see figure 1.6). The small vesicles erupt and this eruption may last from 2 hours to 10 days. The lesions are infectious for approximately 5 days during which time lesion sufferers can transmit the virus to their partners.

Genital herpes do not show symptoms in some people. Older people less frequently show symptoms of the disease than the young. With adequate treatment recurrence may occur two or three times a year (Fuimara 1987). People with multiple partners and those practising unprotected sex are at a greater risk. In 1999 (see Appendix I) 21 cases of genital herpes were reported within the Western Health Board.

Figure 1.6 Primary herpes: Labia

1.3.2 Genital warts

Genital warts are viral diseases caused by papilloma virus and it is mainly transmitted by sexual contact. This disease is characterised by red or pink (see figure 1.7) to dirty grey warts appearing on the moist area of the genitals and the anal areas. Warts may be single or more often present as a cluster of lesions. It is commonly accepted that genital warts can lead to the development of cervical cancer (Fiumara 1987).

Figure1.7 Warts-prepuce

1.3.3 Syphilis

The incidence of syphilis in US is about 80,000 cases annually, with three cases in men for every case in women (Fiumara 1987). Syphilis is caused by a “Treponema pallidum” virus and 90% of all cases are transmitted through intimate sexual contact. Patients are more infectious during the first year of infection and become less with each succeeding year. By the end of four years of infection, syphilis can no longer be spread sexually. The first appearance of syphilis is the development of a chancre at the genitals. The chancre occurs following contact with an infected person who has a syphilitic lesion. The chancre begins as a papule that erodes and ulcerates. It is painless and clean with a scanty yellow discharge (see figure 1.8).

Figure 1.8 Primary syphilis-tongue

1.3.4 Chlamydia

Chlamydia is the most prevalent bacteria disease in both developed and developing countries. The majority of cases are asymptomatic which can lead to it being diagnosed or treated (Thornton 2000). Chlamydia infection is increasing in Ireland (see appendix I).

One of its most common consequences is pelvic inflammatory disease, which can cause infertility problem in men and women if not treated. Young people worldwide know very little about chlamydia (Ellickson, Lara, Sherbourne, & Zima 1993). This is very worrying considering its prevalence.

1.3.5 Gonorrhoea

Gonorrhoea is caused by human pathogen called nesseiria gonorrhoea. It usually affects the urethra and cervix. Gonorrhoea presents unpleasant urethra (see figure 1.9) discharge in men. Signs and symptoms of the disease include abrupt onset, chills, fever and pain in the joints. In adults, sexual intercourse is the main route of transmission (Fuimara 1987).

Figure 1.9 Gonorrhoea-urethritis

In women gonorrhoea is usually asymptomatic, but in some vaginal discharge may be presented. This condition may caused acute pelvic inflammatory diseases (PID) in women if not treated. About 75% of infected women and 10% of infected men attending clinics in USA are a symptomatic. The highest incidence of gonorrhoea was found in young adults age 20-24 (Fuimara 1987).

1.4 Rationale

With all the deaths and increasing number of HIV and other sexually transmitted diseases, sexual behaviours remain relatively unchanged. The “SLAN” survey (Friel et al 1999) has reported that

29% of children between the ages of 18-34 ‘sometimes use contraceptives’ and of those adults who are sexually active condom use accounts for 40% of contraceptive use.

The unchanged sexual behaviour of the teenagers may be due to lack of adequate knowledge about sexually transmitted diseases or lack of access to adequate sexual health information to make healthier choices. It is against this background that this study was undertaken.

1.5 Research Aims and Objectives

Aims

This research aimed to assess the knowledge of school going teenagers in Galway city on HIV and other STDs. The research is focused on only the transition class of the participating schools.

Objectives

- To assess the knowledge level of school going teenagers on HIV/AIDS and other STIs.

- To establish whether access to formal health education on HIV/AIDS and other STIs is provided.

2 METHODOLOGY

2.1 Introduction

This research assessing the knowledge of school-going teenagers on HIV/AIDS in Galway city comprised a self-administered questionnaire to students in transition class.

2.2 Participants

The schools that participated in this study were randomly selected from the list containing all secondary schools in Galway city. Initially, five schools were randomly selected and consent letters (see Appendix IV) enclosing questionnaires (see appendix V) were sent to each of the schools. The remaining secondary schools were written to in order to reach the intended sample size. This was followed by a series of telephone calls to discuss the survey with the principals. Out of five intended for the study only three schools participated. It was not clear why many schools did not participate but it was suggested that it might be due to the sensitivity of the subject.

Participants were drawn from the transition class of the three participating secondary schools in Galway. The final year students were excluded from this study because of their busy schedule. The junior classes were also excluded because they might not have the relevant knowledge to answer the questionnaire properly. A total of 57 students from the three schools participated in the study.

In administering the questionnaires the principals in each school had allocated a teacher who helped in organising students. A 20 minute self-administered anonymous questionnaire was distributed among the students and was collected immediately after completion (see appendix V). In completing questionnaires students were reminded to give honest answers and were also assured confidentiality of the information they are given. After the questionnaires were completed a handout was given to each student (see appendix VI).

2.3 Measures

This study was based on self-administered questionnaires with both open and close- ended questions. The questionnaire aimed to:

- assess the level of knowledge of students on prevention and transmission of HIV/AIDS and other STDs.
- determined whether students got access to formal sex education at school on HIV/AIDS and STDs.
- assessed people's perceived risk and knowledge of six diseases including HIV/AIDS.
- provide socio-demographic information on participants.

2.3.1 General knowledge

The general knowledge (this measure was based on True **1**, False **2** and Don't know **3**) consisted of 21 statements including a control question "Wulu Bacteria". The control question "Wulu bacteria is not a disease", is a name referring to a dog in "Mandinka" language. One of the research participants who said "Wulu Bacteria is a human disease was excluded in the final analysis of this study in order to increase the reliability of the study.

The respondents were asked to initiate whether they believed the knowledge statement were true or false. Samples of the questions are shown below:

- Apart from HIV all sexually transmitted diseases can be cured
- Pills cannot prevent HIV transmission
- Taking antibiotic before is the best way to prevent HIV transmission
- Genital herpes is rare in Ireland
- Wulor bacteria is a human disease (control question)

2.3.2 Risk rating

Students were asked to rate their chances of catching six STDs (No risk, Unlikely, Average risk, Likely, Certain to happen and Don't know) on a six-point scale interval. For each of the diseases participants were asked to rate themselves on the scale from "no risk" at 1 to "certain to happen"

at 5. The sixth item on the scale was “don’t know”. The six STDs students were rating against we re HIV, Genital herpes, gonorrhoea, Chlamydia, Genital warts and syphilis.

2.3.3 Sex Education at schools

Students were asked whether they have sex education at school (Yes or No). If yes how often? This was measured in weeks and months. Information was also collected on the type of sex education covered, in which class, subject and the preferred coverage by students.

2.3.4 Demographic variables

The demographic variables in this study were the age, gender and residence.

2.3.4 Choice of the diseases included in the questionnaire

The diseases included were HIV/AIDS, Genital herpes, Genital warts, Gonorrhoea, Syphilis and chlamydia. These diseases were included in the study based on their severity and prevalence in Ireland. AIDS is the most severe STI. Of the 691 cases that have been reported in this country, three hundred and forty-nine (approximately 50.5% of the total) have died by 31st December 1999 (see Appendix III). Genital warts is the most common STI in Ireland. Two thousand eight hundred and eighty-six cases were reported to the Department of Health in 1998 (see Appendix II). Chlamydia and genital herpes are also quite common (see Appendix I).

3 RESULTS

3.1 Socio-demographic factors

Out of the fifty-seven students 66.7% were girls and 33.3% were boys. One of the participating schools was an all girls' school and the remaining two were mixed schools. The age of the participants ranged from 15 to 18 years with a mean age of 16 years. 57% of the participants reside in the city, 13% from the town and 30% from the country.

3.1 Sex education

The results of this study have shown that 62.5% of the respondents claimed that they do not have sex education in their schools and 37.5% have a sex education programme. Of those with sex education programmes 23.8% claimed that their sex education sessions were held once every week. 9.5% of the respondents claimed to have sex education twice a week 14.3% once a month and 52.4% claimed to have sex education.

The sex education sessions (Table 3.1) mainly covered relationships (83%), AIDS (77%), Sexually transmitted infections (76%), Reproduction (72%) and sexual orientation (38.5%). The results of this study have indicated that sexual orientation is the least covered area among the five areas mentioned in table 3.1. The results also show that sex education was held mainly in biology (52.4%) and religion (38.1%). Only 9.5% are covered in other classes.

Table3.1 Sex education coverage

Areas	**Covered**		**Not covered**	
Reproduction	72%	(15)	27%	(3)
Relationship	83.3%	(13)	16.7%	(5)
Sexual orientation	38.5%	(5)	61.5%	(8)
Sexually transmitted infection	76.2%	(16)	23.8%	(5)
AIDS	77.8%	(14)	22.2%	(4)

Of the students who have sex education programmes in their schools 80% want it to be covered differently, 12.3% of the respondents said they don't care how it is covered (Table 3.2). 8.8% of the students want it to cover risk behaviours such as unprotected sex and IV drug use. This result suggests the importance of sexual orientation. More importantly 3.5% of the respondents advocate for open discussion and also inviting specialists in various diseases to give health advice at schools.

The respondents also want the sex education to be covered especially in the 2nd and 5th year classes. 1.8% wanted it to be covered by TV and Video while a similar percentage were interested in the inclusion of the contraceptives in the programme.

Table3.2 Choice of coverage

Visiting specialist	3.5%	(2)
Open informal discussion	3.5%	(2)
Cover risk behaviours	8.8%	(5)
Weekly sessions	3.5%	(2)
Every day in 5th and 2nd year	1.8%	(1)
Covered by TV&Video	1.8%	(1)
Cover contraception	1.8%	(1)
others	1.8%	(1)
I don't care/don't know	12.3%	(7)

3.2 Knowledge

Generally respondents are knowledgeable of HIV/AIDS and STDs. However they seem to have little knowledge in certain areas. The results of this study (Table 3.3) have shown that 25% of the students were unsure (don't know) or believe that pills can prevent HIV transmission. Similarly 46% of the respondents were unsure or believed that urination after sex prevents HIV transmission. These beliefs are risk indicators and shows how vulnerable the students can be in practicing behaviours that endangers their lives. 60% of the respondents in this study were unsure or believed that total abstinence from sex was not the best way to prevent HIV transmission.

The study has also reported that 1 in every 2 respondents was unsure or believed that all sexually transmitted diseases can be cured and a high percentage of participants (67%) believed that genital herpes is rare in Ireland. Among all those who responded the level of knowledge was greater among those with sex education in their school than those without (Table 3.3.). Comparing schools with and without sex education programmes, it can be seen that sex education seem to have some impact on knowledge levels, although it must be noted that the number are too small to permit meaningful analysis.

TABLE 3.3 Difference in knowledge between those with sex education and those without sex education programme at school

Questions	**Sex education at schoo (who said true)**	**No sex educatior (who said true)**
Very strong and healthy people are not likely to catch AIDS	0%	2.9% (1)
HIV/AIDS can be cured by a highly qualified doctor	0%	8.6% (3)
Having antibiotics before sex is the best way to prevent HIV/AIDS transm	0%	5.7% (2)
Drug addicts are more likely to get HIV/AIDS than non-drug addicts	76% (16)	62.9% (22)
HIV is the disease of the poor	4.8% (1)	5.7 (2)
During sexual intercourse condom can totally prevent HIV/AIDS transmis	19% (4)	37.1% (13)
Wulor bacteria is a human disease	0%	1%
It is possible to get HIV virus without being ill	90.5% (19)	65.7% (23)
HIV virus can be transmitted from mother to child	90.5% (19)	77.1% (27)
HIV virus can be transmitted through blood transfusion	95.2% (20)	71.4% (25)
Genital herpes is rare in Ireland	4.8% (1)	5.7% (2)
Apart from HIV all sexually transmitted diseases can be cured	4.8% (1)	11.4% (2)
A baby can get HIV from her mother's breast milk	42.9% (9)	25.7% (9)
Abstinence from sex is the best way to prevent HIV transmission	50% (10)	34% (12)
A child can be born with HIV virus	95% (20)	80% (20)

3.3 Perceived risk

Generally the greatest proportion of participants tended to rate themselves as having an average risk of getting any one of the six diseases. Among all the diseases students rated themselves highest for HIV/AIDS. 31.5% of the participants stated it was certain or likely to happen. The participants rated themselves lowest in chlamydia and gonorrhoea where only 7.3% of the participants stated that it was certain or likely to happen which may be explained by the severity and the knowledge of the diseases (Table3.4). It is true that HIV is more severe than other sexually transmitted diseases mentioned in this study. Due to its severity it became very relevant to the authorities and many programmes were designed specifically for it in isolation of other sexual transmitted diseases. The knowledge of the people is therefore increased in HIV than other STDs.

Table 3.4 Rating

	No risk	unlikely	Average risk	likely	Certain to happen	Don't know
HIV/AIDS	O%	3.7%	57.4%	27.8%	3.7%	7.4%
Genital herpes	1.8%	7.3%	40.0%	14.5%	3.6%	32.7%
Gonorrhoea	0%	12.3%	30.9%	5.5%	1.8%	49.1%
Chlamydia	0%	3.6%	30.9%	7.3%	0%	58.2%
Genital warts	3.6%	14.5%	32.7%	16.4%	1.8%	30.9%
Syphilis	1.8%	3.6%	36.4%	16.4%	3.6%	38.2%

In general terms male rated their risk as higher than females for all STDs except HIV/AIDS. Difference in risk rating between men and women was significant for gonorrhoea, chlamydia, and syphilis (Mann Whitney U test, $p < 0.05$).

4 DISCUSION

This study aimed to assess the level of knowledge of students on prevention and transmission of HIV/AIDS and other STDs and also to determine whether students got access to formal sex education at school on HIV/AIDS and STDs. The study assessed students' perceived risk and knowledge of six diseases including HIV/AIDS.

The reliability and the validity of the study deign could not be assured because of the personal nature of the questions and possible methodological problems. Self-reports can also be of a potential bias (response bias) especially if participants were unsure of the confidentiality of the study. However the use of the control question and the anonymous nature of the questionnaire may have helped the respondents to be honest in answering the questions.

It is evident that the study is centralised in Galway and that out of eight schools only three participated which means the findings might not be representative of all schools in the area due to the sample size. The questionnaire did not cover attitudes nor other sources of information for participants on HIV/AIDS and other STDs. Nevertheless the study does provide a useful insight in to knowledge of HIV/AIDS and other STDs among secondary school students.

The results of this study have shown that 62.5% of the respondents have sex education programmes in their schools. This is inconsistent with the findings in McHale's (1994) school sex education survey, which reported that majority of the schools have sex education in their schools. However, it must be noted that only three schools participated in this survey compared to the 1994 school survey. Although most appear happy with the content of school sex education programmes there were some room for improvement. The result of this study have indicated that in Irish schools sexual orientation is the least covered area when compared with other health education programmes at schools. With sexual orientation programmes in schools students will be given opportunity to discuss and understand their sexualities. The students will learn and understand how to make decisions regarding sex and how to protect themselves from sexually

transmitted diseases. However, it must be noted that such issues may have been dealt with in other classes such as assertiveness or personal development classes.

Lack of knowledge about STDs is of particular concern as these diseases can have serious long-term consequences. Schools without sex education programmes could therefore be identified and targeted for a more comprehensive sex education programme. This study also gives an insight of some of the sex education programmes that have being going on in schools as well as the subject areas covered. For both schools with sex education and those without sex education the result of this study indicated a high level of understanding of HIV and a lower level of understanding of the other six sexually transmitted diseases. This suggests a need for more emphases to be placed on other sexual transmitted diseases. The result of the study also indicated that a large minority of the students have sex education class twice a week. 14.3% of the participants have sex education twice a week and 23.8% have sex education once a week. The findings suggest that there may be need to increase the frequency of sex education classes at schools.

The results of this study have shown that 25% of the students were unsure or believe that pills can prevent HIV transmission. This is consistent with McHale's (1994) school survey that reported one-fifth of respondents were unsure or believe pills can prevent HIV transmission. Such beliefs can have a serious negative consequence and may influence the attitude and behaviour of the students if appropriate action is not taken.

Generally the greatest proportion of participants tended to rate themselves as having an average risk of getting any one of the six diseases. Among all the diseases students rated themselves highest for HIV/AIDS. 31.5% of the participants stated it was certain or likely to happen. This suggests that some students perceived that they do not have control over their behaviours. With increased sex education classes and increase coverage of sexual orientation, students may be able to improve their self esteem.

Boys rating themselves higher than girls in terms of perceived risk may be due their risk taking behaviours. Girls rating their risk of catching STDs may be due to their knowledge and self- esteem. Girls generally tend to be more sexually oriented (knowledgeable) than boys because of their risk to pregnancy (Moore & Rosenthal 1996). This findings suggested programmes that will booster self-esteem of participants especially boys.

More research is required on school sex education in order to assess its impact in more detail and also to develop strategies and programmes geared towards effective sex education at school.

5 RECOMMENDATIONS

In general the knowledge of the students is higher on HIV than the other five sexually transmitted diseases. This may be due to the high coverage of AIDS education in schools when compared to other sexually transmitted diseases. Therefore there is a need to increase sex education coverage on other sexually transmitted diseases in the schools.

Sexual orientation is the least covered (38.5%) programme in the schools. Its coverage should be increased to enable students to understand their sexuality, enhance self-esteem and exercise protective sexual behaviours.

Frequency of sex education classes should be increased to allow students to improve their knowledge about their sexuality and sexually transmitted diseases.

Participants advocated for open discussion and also inviting specialists in various diseases to give health advice at schools. The respondents also want the sex education to be covered especially in the 2^{nd} and 5^{th} year classes. 1.8% wanted it to be covered by TV and Video while a similar percentage were interested in the inclusion of contraceptives in the programme. This suggested the need for a comprehensive sex education programme at schools. School community links should also be strengthened so that services of specialists in the communities can be available to the schools.

Further research is required focusing on the knowledge attitude and sexual behaviour of teenagers on HIV/AIDS and other STDs. In addition the effectiveness of informal sources of information such as those from parents and peers should be assessed.

6 REFERENCES

Friel, S. Nic Gabhainn, S. Kelleher, C. The National Health and Lifestyle Surveys (1999) Dublin: Stationary Office.

Ellickson, P.L. Lara, M.E. Sherbourne, C.D. & Zima, B. (1993) Forgotten ages, forgotten problems. California: Rand.

EmacHale, E. (1994) Sexual behaviour and sex education in Irish school-going teenagers. International Journal of STD and AIDS 1997; 8: 196-200

Kiely, J. (1999) The Annual Report of the chief Medical Office (1999). Dublin: Department of Health Publication

Lamptey, P. and Tarantola (1998) The Status and Trends of the HIV/AIDS Epidemic in the World. France :Monitoring the AIDS (MAP) Pandemic.

Moore, S.M. & Rosenthal, D.A. (1996) Young people assess their risk of sexually transmitted diseases. Psychology and Health, 11, 345-355.

Thornton, L. (2000) Review of services for sexually Transmitted Infections in the Eastern Regional Health Board Authority. Dublin: Department of Public Health.

Zenilman, J.M. Chlamydia and Cervical cancer. A real Association? JAMA, January 3, 2001-vol 285, no.1

Weinstein, N. (1984) why it won't happen to me: Perceptions of risk factors and susceptibility. Health Psychology, 3, 431-**457**

APPENDIX 1

Cases of STI notified to the Department of Health from 1989 to1998

Sexually Transmitted Disease	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Ano-Genital Warts	505	917	1089	1066	1332	1532	1972	2286	25142	2886
Candidiasis	688	1056	1257	1157	1400	1360	1271	1321	1521	1277
Chancroid	2	0	0	2	0	2	3	1	1	0
Chlamydia Trachomatis	174	215	164	192	315	133	245	364	462	646
Genetial Herpes Simplex	78	123	109	125	124	173	198	181	211	243
Gonorrhoea	27	90	73	51	24	98	91	83	98	125
Granuloma Inguinale	0	0	0	0	6	0	0	1	1	0
Lynphogranuloma - Venereum	0	0	0	0	0	0	0	0	5	1
Molluscum Contagiosum	31	39	43	44	34	56	59	34	74	84
Non-Specific Uethritis	600	738	549	585	756	610	781	823	1034	1083
Pediculosis Pubis	60	70	72	70	77	69	86	79	81	105
Syphilis	12	19	20	20	8	11	11	17	16	15
Trichomoniasis	51	86	163	41	57	29	60	71	94	38
STDs other than those listed	353	458	291	551	425	391	382	505	1138	933
Totals	2581	3811	3830	3904	4653	4464	5159	5766	7250	7436

APPENDIX II

New cases of sexually transmitted infections in Western Health Board 1996-1999

Years	1999	1998	1997	1996
Ano-Genital Warts	353	252	208	190
Candidiasis	120	101	79	67
Chancroid	-	-	-	-
Chlamydia Trachomatis	57	58	15	24
Genital Herpes Simplex	21	15	12	14
Gonnorrhoea	23	15	12	3
Infectious Hepatitis C	-	1	-	-
Non-specific Urethritis	23	21	36	23
Syphilis	-	-	-4	
Other STD requiring treatment	88	59	41	57

APPENDIX III

Revised list of AIDS cases and deaths up to 31st December 1999

Cases 691	Male	Female	Total
Homosexual/Bisexuals	237		237
Iv drug users	211	69	280
Homo/bisexual IV Drug users	10		10
Haemophiliacs	33		33
Children born to IV drug users	7	7	14
Heterosexuals	48	44	92
Other children	1	8	9
Undetermined	9	4	13
Transfusion recipient	2	1	3
	558	133	691
Deaths-349			
Homosexuals/bisexuals	114		114
IV drug users	114	41	155
Homosexual/bisexual/IV drug users	6		6
Haemophiliacs	25		25
Heterosexuals	19	18	37
Children born to IV drug users	4	4	8
Undetermined	3	1	4
	285	64	349

APPENDIX IV

Public Health Department
Merlin Park
15th January 2001

Mr. Sannin
Colaiste Einde, ThreadneedleRoad.
Galway.

Dear Sir,

RE: Permission for a survey assessing the knowledge of AIDS/HIV among your students.

I wish to seek for your permission to conduct a survey assessing the knowledge of your students on HIV/AIDS.
I am a student from the National University of Ireland, Galway and I am doing my work placement with the Public Health Department. The main purpose of this survey is for the fulfilment of my academic obligation. This survey will also create a base line information for future research in schools with a view of promoting the health and well being of the students.

The survey consists of 5 schools in Galway. All schools were randomly selected from the list provided to us by the Department of Education. Your school happened to be among the 5 selected. The total number of students to be involved in this survey from each school is 20, preferably 10 boys and 10 girls. The students in the transitional class are the students of choice. The selection process for these students would be based on random sampling. The school register would be used for this purpose, so that all the students will have equal chance of being selected.

The questionnaire will be self-administered, anonymous and would take 15minutes to complete. The questionnaires will be distributed among students and collected immediately after completion.

I will like to assure you that the information to be gathered from this survey will be strictly confidential. I would be extremely grateful for your co-operation and look forward to hear from you.

Yours Sincerely,

_____

Abdoulie Sanneh

APPENDIX V

Questionnaire No ☐☐☐

SURVEY OF STI's AND HIV/AIDS KNOWLEDGE
DEPARTMENT OF PUBLIC HEALTH, WESTERN HEALTH BOARD

Q1 **CODE IN GRID (CIRCLE NUMBER)** →	TRUE	FALSE	DON'T KNOW
Apart from HIV all sexually transmitted diseases can be cured.	1	2	3
A baby can get HIV from "her" mother's breast milk.	1	2	3
Abstinence from sex is the best way to prevent HIV transmission.	1	2	3
After having sex urination is advisable to prevent HIV/AIDS	1	2	3
You can get HIV by sharing a bath towel with an infected person?	1	2	3
Pills cannot prevent HIV transmission.	1	2	3
A child can be born with HIV virus.	1	2	3
You cannot get HIV virus by sharing a razor blade with an infected person.	1	2	3
Very strong and healthy people are not likely to catch HIV/AIDS.	1	2	3
HIV virus can be transmitted by ordinary kissing of an infected person	1	2	3
You cannot get HIV by sharing clothes with an infected person.	1	2	3
HIV/AIDS can be cured by a highly qualified consultant	1	2	3
Taking antibiotic before having sex is the best way to prevent HIV/AIDS transmission.	1	2	3
Drug addicts are more likely to get HIV/AIDS than non drug addicts	1	2	3
HIV/AIDS is the disease of the poor.	1	2	3
It is possible to get HIV virus without being ill	1	2	3
HIV virus can be transmitted from mother to child	1	2	3
During sexual intercourse condoms can totally prevent HIV/AIDS transmission.	1	2	3
HIV virus can be transmitted through blood transfusion.	1	2	3
Genital herpes is rare in Ireland	1	2	3
Wulor bacteria is a human disease.	1	2	3

Q2 Is there any sex education programme in your school?

Yes	1
No	2

If yes, how often

Once a week	1
Twice a week	2
Once a month	3

Other
(Specify)_____

(i) In which class?

Home Economics	1
Biology	2
Religion	3

Others
(Specify)_____

(ii) What does this sexual health cover?

	Yes	No
Reproduction	1	2
Relationship	1	2
Sexual orientation	1	2
Sexually Transmitted Infections	1	2
AIDS	1	2

Others (specify)_____

_____

Q3 How likely do you think you are at risk of catching the following if you have unprotected sex?

CODE IN GRID (CIRCLE NUMBER) →	No Risk	Unlikely	Average Risk	Likely	Certain to happen	Don't know
HIV/AIDS	1	2	3	4	5	6
Genital herpes	1	2	3	4	5	6
Gonorrhoea	1	2	3	4	5	6
Chlamydia	1	2	3	4	5	6
Genital warts	1	2	3	4	5	6
Syphilis	1	2	3	4	5	6
Wulor bacteria	1	2	3	4	5	6

Q4 What is AIDS?

_____

_____

_____

_____

Q5 Do you want sexual education to be covered differently?

Yes	1
No	2

If yes, how?

_____

_____

_____

_____

_____

Q6 Are you:

Male	1
Female	2

Q7 What is your age? _____years

Q8 Where do you live?

City	1
Town	2
Country	3