SEXUAL TRANSMITTED DISEASES

Comparison between Portugal and Czech Republic

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APRIL 2008

" It is easier to prevent bad habits than to break them"

Benjamin Franklin, American scientist, publisher, diplomat

CONTENTS

1. Abstract

Sexually Transmitted Infections (STI) constitute a worldwide problem as they are associated with great morbidity and mortality. The most common diseases are Gonorrhoea, Syphilis, HIV, Chlamydia, Trichomoniasis.

The incidence of sexually transmitted diseases is higher in Portugal than in Czech Republic, being the former one of the poorest controlled countries in Europe, and the latter, one of the best rates in the European Union.

Many factors contribute to the big difference between the two countries, being the most important prevention and control.

The poor notification by the medical staff, the still not enough effort done by education, prevention and awareness, and information, and their erroneous association with marginal groups, makes Portugal stand in the first rank of countries in Europe.

On the other hand, in the Czech Republic, sexual education is more effective and more appropriate, and the tolerance towards sexual relationships is more accepted by communities. People are more aware of the problem and take measures to fight against it, and medical staff is also more preoccupied and attentive to this type of diseases, therefore effective in their notification.

Many preventive measures should be adopted to counteract the incidence of these diseases and they include the reduction in STI associated morbidity and mortality, and effective prevention.

2. Introduction

Sexual Transmitted Infections, (STI), are the most common pathology for which a sexually active individual visits the health care center, especially due to the discomfort caused by the disease and its interference with social and sexual life. According to the World Health Organization, December 2007, about 33,2 million of people are infected with HIV worldwide, from which 2,5 millions are newly diagnosed cases. Only in 2007, 2.1 million of people died with AIDS. Each year, 340 million new cases of syphilis, Gonorrhea, Chlamydia and Trichomoniasis occur in both man and women between 15-45 years old, and the prevalence continues to rise in many countries, including developed ones. It is then necessary to talk about sexual transmitted diseases, as they are in first instance, a sanitary problem. Every year increases the number of people affected, and this is mainly due to the change in sexual habits and the appearance of AIDS.

These diseases have an important influence in health, economy and social organization of communities, because they provoke an increase in perinatal and maternal morbidity and mortality, decrease in fertile period both in men and women, increase the incidence of anal and genital cancers, being enormous the money spent in their treatments.

The main causative agents sum up to more than 30 bacterial, viral and parasitic pathogens, the most common being gonorrhea, syphilis, hepatitis, Chlamydia and HIV. They may produce symptoms that can be mild or transient but, they may produce no symptoms at all, making it hard to diagnose these diseases.

Syphilis is caused by *Treponema Pallidum*, and it is a genital ulcer disease. The most likely affected population are those in underdeveloped countries and those from disadvantageous social classes in developed countries. They have high prevalence in Sub-Saharan Africa and South and Southeast Asia. Homosexuality and sex contact with sex workers are important risk factors. It can produce serious and life-threatening conditions,

such as congenital syphilis, pneumonia and low birth weight.

Gonorrhea is a disease caused by a gram- negative cocci called *N. gonorrhea,* and it is mainly characterized by a vaginal discharge, dysuria, intermenstrual bleeding, and bleeding after sexual intercourse. Infected woman can pass the infection to their newborn infants during delivery, causing conjunctivitis that, if left untreated may cause blindness. Later stages of the disease in adults, can lead to Pelvic inflammatory disease, prostate, testicular and urethral inflammation. Like syphilis, it has a high prevalence in Sub-Saharan and South and Southeast Asia, developing countries and lower social classes in developed countries. Since the AIDS emergence, its incidence has been decreasing in the general population, in homosexuals, and in sex-workers in many developing countries.

Chlamydia Trachomatis is one of the most common sexually transmitted diseases, especially among young people below 25 years and having a new sexual partner. It is a gram negative intracellular bacteria, and although in the majority of the cases causes mild unspecific or even asymptomatic symptoms, if untreated can lead to pelvic inflammatory disease, infertility, potentially fatal ectopic pregnancy, epididymitis, reactive arthritis and conjunctivitis. In vaginally delivered newborns infected by their mothers, the infection can cause conjunctivitis and Chlamydiae pneumonia.

Trichomonas Vaginalis, is an anaerobic parasite, causing abundant vaginal discharge and vaginal pruritus in women and is mainly asymptomatic in men or causes mild urethritis and irritation in the tip of the penis. Infection varies greatly across countries, from 1% in women living in cities and more than 20% in women living in underserved areas of the same country. Although they are mainly reproductive tract other that sexually transmitted infections, they are managed together with STIs because they are associated with some risk factors for these diseases.

Bacterial vaginosis and vulvovaginal candidasis are, like *Trichomonas Vaginalis*, considered reproductive tract diseases that share the same risk factors as HIV. They are very prevalent in the population of especially developed countries and they are characterized by vaginal shedding.

Herpex Simplex Virus-1 (HSV-1), one of the most common viral genital and anal infections, and HSV-2 is more associated with recurrent cases. These infections can be life long, with repeated recurrences, and therefore they are associated with high morbidity. However, in most of the cases, symptoms are mild or may remain asymptomatic. Complications of HSV-2 are associated with severe primary disease, meningitis, hepatitis, erythema multiformis. There is the risk of pregnant mothers to transmit the infections to their newborn babies and the consequences of this can be disastrous, and include: neonatal sepsis, severe neurological damage and in the worst of the cases, death. HSV-2 infection may still be transmitted to the partner even after many years from the initial infection, even when the infected person may be asymptomatic. It is one of the most common causes of genital ulcers worldwide, especially after the appearance of more sophisticated methods able to diagnose them more accurately, even asymptomatic infections.

Human Papilloma Virus (HPV), represents a family of many serotypes which can be grouped into non-carcinogenic (low risk, e.g. types 6 and 11) or carcinogenic (high risk, e.g. 16, 18, 31 types). Low risk types are associated with anogenital warts and condyloma acuminata, while high risk types are intimately related with the appearance of anogenital squamous cell neoplasia, and they are the major cause of cervical cancer worldwide. Infection by this virus is common even in relatively sexually inexperienced individuals, and the presentation can be either asymptomatic or associated with anogenital warts, cervical cancer, vulvar, vaginal and anal cancer. Because of the increasing incidence among young population, a vaccine has been recently developed and is especially recommended to young women before the age of 25, especially those who have not initiated sexual relationships yet.

 In developed countries, Hepatitis B virus (HBV) can be transmitted sexually or by blood and is very prevalent among intravenous drug abusers. Men who have sex with men are recommended to take a vaccine to protect against this infection. In developing countries, this infection is acquired perinatally or during childhood. Hepatitis B infection causes

chronic hepatitis that can be complicated by cirrhosis and ultimately liver cancer or failure.

Co-infection of any of these diseases can represent and added burden both economical (in diagnosing and treating these diseases) and preventively. The presence of infection with one pathogen, increases the probably of infection with another one, especially if associated with risk behavior.

Sexual behavior and Sexual Health care are important factors determining the acquisition of and STI. Unprotected sex increases the chance of acquiring a sexual transmitted infection, or to transmit it, but this depends on the transmissibility of the infection and the duration of the infection in the affected person. Behavior is important in this sense, more concretely risk behavior, and its prevention is necessarily directed to decrease or eliminate the non safe sexual behaviors and to increase in preventive methods like the use of condom, periodical medical vigilance, never forgetting the importance of individual learning and continuous education versus integration (social, trust, discussion, communication and support). The main goal of prevention it is not to change the behavior of all the people, but of especially those at higher risk to acquire and disseminate the STI /AIDS.

 The literary studies reinforce the adoption of healthy lifestyles in the population at risk, especially young adults, because their sexuality is intimately connected to trust and affectivity. They are initiating sexual activity earlier, there is a higher percentage of i.v. drugs consumers among young population, a higher number of young adults from 20-39 years are asymptomatic carriers of the disease, and it is a reality the wrong perception they have about STI. Because there still is a taboo regarding discussion about this issue, especially in parents with poor education or extremely religious, a high percentage of our young adults are in permanent contact with many information, sometimes contradictory. While friends and media stimulate sexuality, many parents and educators, see it with disrespect the fact that their children attend familiar planning consultations. Also, the relationship between sex and profanity creates resistance to adoption of preventive measures. Quenia is a marked example of this resistance where religious leaders have

once burned, theatrically, condoms in a park in Nairobi. Until recently, classes about AIDS and sex were prohibited in some schools and there still is some secrecy about questions related to sexuality. Traditional dangerous practices that propagate the virus, like circumcision using the same scalpel, are not recriminated. It is then demonstrated by the society, a certain ambiguity in relation to sexuality and the young.

 Therefore, when we talk about sexuality development, we should think that it is related not only with the influence of sexual information, but also with socio-economic and cultural systems. It is necessary to recognize that sexuality is an area of knowledge in continuous mutation and extremely complex, that is seen and understood by a system of individual values. On the other hand, sexuality and sexual education are phenomena's that interrelate and accompany the evolution of man, and is inserted in the historical and cultural context of the people.

The main goal of this paper is to compare the incidence of STI/AIDS between Portugal and Czech Republic, and to discuss its prevalence among the younger population. Although these two countries were chosen incidentally, it turned out to be very interesting the comparison between them, as they represent two completely opposite scenarios, especially when it comes to HIV infection. Both countries have similar population number, which made this comparison possible. With the fall of the communism in 1989, the borders were opened and many emigrants moved across Czech Republic, coming from the neighboring countries, especially, Russia, Kasaquistan, Ukraine, etc, and most of them made their living as sex workers. This historical remark is very important in the surveillance study of evolution of STI, because from this period, the rate of infections increased greatly in the Czech Republic. In Portugal, the high incidence of sexual transmitted diseases since the 70's are associated with immigrants coming from Africa, where unfortunately, the incidence is still very high.

3. Data and Methods

DATA

1. World Health Organization (WHO)

- Department of Reproductive Health and research.

- WHO/ Regional office for EUROPE – European HFA database

- Fifth and ninth World Health Assembly

2. Regional Czech Bureau for Health Statistics (2007)

3 .Portuguese National Statistic Center (INE) (2007)

There are some limitations regarding some of this data, especially in the case of Portugal. It seems to be a system of under notification of these diseases by the health care professionals, and private institutions, and therefore, the values obtained may not correspond to the actual picture.

Methods

The method used by this paper was by informed interpretation and analysis of the results provided by the WHO and National Statistic Centers from each country.

4. The situation in Portugal

Since the Cairo conference (1994), an enlarged concept of Family Planning has emerged, becoming more related with the concept of Reproductive Health. One of the main objectives underlying this new concept includes the reduction of the sexually transmitted infections and its consequences, including infertility.

In Portugal, up to the moment, the studies that have been realized are more focused in the AIDS phenomena, although there have been presently diagnosed more than twenty STIs that constitute an important public health problem. On the other hand, only a small percentage of STI continue to be of obligatory notification, appearing to be a situation of under notification by the Portuguese health professionals, contributing to the unawareness of the real expression of these diseases.

Table 1 shows the expression of HIV/AIDS over the decades.

	AIDS incidence per 1000000 population	Number of new AIDS cases	Number of new HIV infections
1979	0	0	
1980	0	0	
1981	0	0	
1982	0	0	
1983	0.01	1	
1984	0.04	4	
1985	0.2897	29	
1986	0.4096	41	
1987	0.815	81	
1988	1.43	143	
1989	2.01	200	
1990	2.6	260	
1991	3.08	307	
1992	4.34	433	
1993	5.64	563	
1994	6.87	687	
1995	8.1	812	
1996	9.76	982	
1997	9.76	985	
1998	9.93	1006	
1999	10.48	1066	

2000	9.72	994	4127
2001	9.48	976	2435
2002	9.47	982	2517
2003	8.53	893	2252
2004	7.5	788	2785
2005	7.25	761	2612
2006	6.59	695	2162

Table 1: Estimated number of adults and children living with AIDS and number of new cases of AIDS/HIV by the end of 2006 in Portugal. *Source: WHO Europe, European HFA Database.,November 2007*

By the end of 2006 there were 2162 new HIV infections from which 695 were AIDS cases. The numbers have been increasing since the 80's and is now approximately stable since the year 2000.

Despite this, Portugal is still among the countries with higher incidence of HIV in Europe. Its main source is from intravenous drug users (IDU), and in 2006, there were 703 new cases reported and the cumulative total from 2002-2006 was 8082 cases of HIV/AIDS in IUD, the highest among western Europe countries, followed by the United kingdom with 4593 cumulative cases, Switzerland with 3513 and Germany with 2635. In the Whole Europe, Portugal is in the 3rd rank of the countries where the incidence of HIV/AIDS among IUDs is higher, after Russian Federation (166044 cumulative cases) and Ukraine (59619 cumulative cases). (HIV/AIDS Surveillance in Europe, 2007).

	Syphilis incidence per 100000 population	Number of new Syphilis cases	Congenital Syphilis per 100000 population	Number of new congenital syphilis cases
1979	-	-		
1980	6.23	616		
1981	7.48	737		
1982	5.4	534		
1983	2.58	257		
1984	3.04	304		
1985	2.79	279		
1986	2.62	262		
1987	4.66	466		
1988	2.52	251		
1989	2.29	228		
1990	1.83	183		
1991	1.79	178		

1992	1.75	174		
1993	1.9	190		
1994	1.95	195		
1995	2.17	218		
1996	2.05	206		
1997	2.34	236		
1998	1.73	175		
1999	2.48	252	0.4522	46
2000	1.71	175		
2001	1.3	134		
2002	-	-		
2003	1.58	166	0.1814	19
2004	1.18	124		
2005	1.34	141		
2006	-	-		

Table 2. Reported cases of syphilis from 1979 to 2006**.** Portugal *Source: WHO/Europe, European HFA Database, November 2007*

	Gonorrhoea incidence per 100000 population	Number of new Gonorrhoea cases
1979	-	-
1980	8.47	837
1981	8.81	868
1982	6.88	682
1983	4.09	407
1984	4.65	464
1985	2.53	253
1986	2.03	203
1987	4.19	419
1988	2.24	223
1989	2.62	260
1990	2.57	257
1991	2.4	239
1992	1.82	181
1993	1.56	156
1994	0.88	88
1995	0.73	73
1996	0.7	70
1997	0.64	65
1998	0.39	40
1999	0.63	64
2000	0.45	46
2001	0.38	39
2002	-	-
2003	0.51	53
2004	0.5	52
2005	0.52	55
2006	-	-

Table 3. Reported cases of gonorrhoea from 1979 to 2006**,** Portugal**.** *Source: WHO/Europe, HFA Database, November, 2007.*

In the Table 2 and 3 above, it is found the etiological report for other STI provided by the WHO for Portugal. Unfortunately only cases of gonorrhoea and syphilis have been reported, addressing the difficulty in evaluating the rate of incidence of STIs in Portugal. This is probably due to the fact that the remaining STIs (other than syphilis, gonorrhoea and AIDS), did not deserve until now the same preoccupation, as they don't appear to induce the same socio-economical consequences as AIDS, for example. In this sense, the scenery relative to the other STI is practically unknown, although suspected to be raising, as it has been happening at the world scale, compromising the sexuality of thousands of individuals.

According to the table no. 2, it is possible to verify that the incidence of syphilis is relatively constant in this country, despite some peaks in the late 70's and early 80's, probably due to the increased number of emigrants coming from the ex-colonies. The same is true regarding gonorrhoea.

Note that these values may not correspond to exact reality, as there is the already mentioned lack of notification by some health professionals, and due to the fact that many affected people are asymptomatic and therefore do not seek medical help.

5. The situation in Czech Republic

 The situation in the Czech Republic is very different from that in Portugal. It has one of the lowest rates of HIV incidence in Europe. There are currently 1042 registered HIV cases and 239 patients with AIDS, according to the latest statistics from the National Reference Laboratory for AIDS. The National Program maps the spread of HIV/AIDS since 1983, being all cases monthly reported to the Ministry of Health and other governmental and non-governmental institutions. The data submitted is then for use in preventive activities and are part of the European HIV/AIDS surveillance programme (Bruckova et al., 2007).

	AIDS incidence per 1000000 population	Number of new AIDS cases	Number of new HIV infections
1979	0	0	
1980	0	0	
1981	0	0	
1982	0	0	
1983	0	0	
1984	0	0	
1985	0	0	3
1986	0.0097	1	23
1987	0.0193	2	24
1988	0.0579	6	35
1989	0.0676	7	8
1990	0.0482	5	15
1991	0.0194	2	13
1992	0.0872	9	23
1993	0.1452	15	27
1994	0.1161	12	38
1995	0.1258	13	40
1996	0.1842	19	50
1997	0.1941	20	62
1998	0.0777	8	31
1999	0.1653	17	50
2000	0.1363	14	57
2001	0.0685	7	51
2002	0.0784	8	50
2003	0.0784	8	61
2004	0.1274	13	76

2005	0.1075	11	90
2006	0.1187	12	93

Table 4: Estimated number of adults and children living with AIDS and number of new cases of AIDS/HIV by the end of 2006 in the Czech Republic. *Source: WHO Europe, European HFA Database ,November 2007*

	HIV +	**AIDS**
2007	1042	239

Table 5: Estimated number of HIV+ and AIDS by the end of December 2007 in the Czech Republic. *Source: National department of Statistics of the Czech Republic.*

By the end of 2007, there were 1042 people were living with HIV. From this value, 564 were Homo/bisexual, 16 were intravenous drug abusers (IUD) and Homosexuals, 53 were solely IUD, 17 were haemophilic, 14 cases were acquired by transfusion, 322 were heterosexuals, 4 cases were due to mother – child transmission, 2 were nosocomial infections, 49 not identified and finally 1 reported case was due to other sources.

In this country, 85% of the HIV cases are transmitted sexually (a situation correlated with prostitution), more than half of the cases, 54%, are associated with homosexuality and 79% of them are male. Almost two thirds of the HIV infections are resident in Prague and its immediate vicinity. Only 6.62% of the cases are due to i.v. drug abusers, even though this figure has risen from 4.7% registered before 2004.

	Syphilis incidence per 100000 population	**Number of new Syphilis cases**	**Congenital Syphilis per 100000 population**	**Number of Congenital Syphilis cases**
1979	3.26	336		
1980	5.22	539		
1981	4.45	458		
1982	3.25	335		
1983	3.46	357		
1984	3.39	350		
1985	2.76	285		
1986	1.93	200		
1987	1.92	199		
1988	1.95	202		

1989	1.32	137		
1990	1.5	155	0.0579	6
1991	2.42	249	0.0097	1
1992	2.57	265	0	0
1993	2.26	233	0.0484	5
1994	3.57	369	0.1258	13
1995	4.19	433	0.1065	11
1996	5.34	551	0.0872	9
1997	5.86	604	0.1553	16
1998	6.67	687	0.1748	18
1999	7.11	731	0.1653	17
2000	9.41	967	-	-
2001	13.46	1376	-	-
2002	9.57	976	-	-
2003	8.32	849	0.1078	11
2004	6.73	687	0.098	10
2005	5.45	558	-	-
2006	5.03	508	-	-

Table 6. Reported Syphilis cases from 1979 to 2006**.,** Czech Republic**.** *Source: WHO/Europe, European HFA Database, November 2007*

The incidence of Syphilis increased from approximately 2/ 100 000 population in the early 90's to and average of 7/100 000 population by the beginning of 2000. Since then, until the year of 2006, the value seem to be relatively stable, and the slight decrease in the figures can be possibly due to the increased number of private practice and their association with under notification.

	Gonorrhoea incidence per 100000 population	Number of new Gonorrhoea cases
1979	86.97	8955
1980	86.1	8891
1981	90.58	9333
1982	92.83	9575
1983	90.77	9370
1984	78.52	8112
1985	69.12	7147
1986	64.02	6622
1987	56.97	5896
1988	61.71	6391
1989	58.54	6066
1990	61.12	6334
1991	69.09	7121
1992	70.83	7308
1993	44.37	4584
1994	28.52	2948
1995	19.71	2036
1996	11.57	1194
1997	10.66	1098
1998	10.25	1055

1999	9.68	995
2000	8.64	888
2001	8.61	880
2002	8.93	911
2003	10.1	1030
2004	9.29	948
2005	7.27	744
2006	10.74	1086

Table 7. Reported Gonorrhoea cases from 1979 to 2006. Czech republic. *Source: WHO/Europe, HFA Database, November 2007 .*

The number of Gonorrhoea has been dramatically decreasing since the beginning of the 80's, where there were 86.97 cases per 100000 population, to 9.29 per 100000 population in 2006. This is due very probably to underreporting, especially by private health services, which are increasing in number in the Czech Republic.

6. Comparison trends between Portugal and Czech Republic

The situation regarding sexually transmitted diseases in Portugal and Czech Republic is a very interesting case, because it represents two extremes especially regarding HIV/AIDS.

	Czech Republic	Portugal
1985	3	-
1986	26	-
1987	50	-
1988	85	-
1989	93	-
1990	108	-
1991	121	-
1992	144	-
1993	171	-
1994	209	-
1995	249	-
1996	299	-
1997	361	-
1998	392	-
1999	442	-
2000	499	15707
2001	550	18090
2002	600	20564
2003	661	22807
2004	737	25592
2005	827	28204
2006	920	30366
2007		

Table 8. HIV- Cumulative reported HIV infections for both countries. *WHO.*

NOTE: Data for 2000 in Portugal include many cases undiagnosed in the previous years, there is no available data by year prior to 2000

The former country has one of the highest rates of HIV/AIDS, while the latter is among the countries in EU with lowest incidence in the aforementioned disease. According to the National Statistic Centres for each country and the WHO surveillance reports, the majority of HIV/AIDS cases in Portugal are present among intravenous drug abusers, while in the Czech Republic the transmission is mainly by the sexual route, especially high among homosexuals.

On the other hand, the rate of syphilis and gonorrhoea are higher in the Czech Republic, although the numbers seem to be stabilizing, the figures are still quite high, especially when compared to Portugal. This may be due to the higher number of prostitution in the Czech Republic, especially frequent among emigrants from eastern European countries and ex-Soviet Union countries and Ceria. However, the problem of under notification in the Portuguese health system must be taken into account when analysing the data, and therefore, the number of cases may actually be higher then it appears to be.

From 1991, the incidence of syphilis in Portugal follows a similar path to that of HIV/AIDS. In the Czech Republic, rates are almost parallel. HIV is low and stable in this country.

Regarding gonorrhoea only, table shows that there is an accentuated decrease in this infection since the 80's in Portugal while in the Czech republic, the values greatly decrease until 1987, and then on, the decline is only moderate, reaching lower levels from the by the mid 2000. Unlike syphilis, in this area of Europe, value of gonorrhoea infection is ten times higher in the early 80's.

7. Discussion

As we could understand from the previous chapter, STI are current problem Worldwide. Each year, 340 million cases appear all over the world in men and women between 15 and 49 yrs old and the rates continue to rise in most countries, including developed ones.

Portugal represents a country where the HIV/AIDS is poorly controlled, being the third highest rate in the prevalence of this disease, after Russia and Ukraine. It started to increase from the 80's and 90's. The reason for this scenario is well clear and this may be related to the higher influx of emigrants from the ex-colonies in Africa and also Brazil, where the incidence of these diseases is much higher. On the other hand, Portugal being a catholic country is very conservative, and although the situation is getting better, there is still a big work to be done, especially in prevention. Many sexually active teenagers and adults still don't use the condom during sexual intercourse, and regular visits to the doctor are rare in the population, that seems not to be aware of this great problem. Sexual education is still not well implemented in schools. Discussion about sex safety, awareness and STI is not practiced within the family, where sex is still nowadays considered a taboo. Nevertheless, report of cases by health care services is still deficient (although it is obligatory by law), which makes evaluation of the situation difficult, and therefore, worsening the effect of lack of information in the matter. The National Prevention and Control Program for STIs and AIDS, recognizes that the following topics should be targeted: the knowledge about each disease (its dynamics and determinants in infection), to prevent the transmission of the infection, with special attention to the most vulnerable groups, to generalize the access to early detection of the infection and its adequate referral, to guarantee access to treatment, to secure a continuous care and social support, to reduce the stigma and discrimination, to share responsibilities between the relevant intervenients, to secure continuous education, to encourage investigation and cooperation with international relations, and finally to monitor and evaluate the programme

(Programa Nacional de Control e Prevenção do vírus HIV e de Doenças Sexualmente Transmitidas, 2007).

In the Czech Republic, the incidence of HIV/AIDS is still low, and cases started to appear by the end of the 80's and started to increase in the first half of the 90's. This can be explained by the opening of the borders after the communism that brought with it the influx of people coming from Russia and Ukraine and other less developed countries in Eastern Europe, where the prevalence of HIV/AIDS is very high.

The similar path between syphilis and HIV over time reflects the fact that both diseases are associated with men that have sex with men.

The situation regarding gonorrhoea is slightly different. The accentuated decrease in Portugal related with better case detection, more effective treatment and reduction is sexual risk, especially when the anti-AIDS campaigns started.

The burden of STI is enormous. Targeting STI control will decrease the burden and the transmission, especially among risk populations/communities. Therefore, managing the control and prevention of STI is cost-effective and it represents one of the public health measures that have a high value for money.

Many efforts to decrease the spread of STIs have been experimented, but thy all seem to be ineffective, expensive and very complicated. Some solutions have emerged that consist mainly in behaviour change. However this is a very challenging approach and by no means easy, because changing the behaviour, implies changing lifestyle (sexual abstinence versus condom use), overcoming political, social and religious barriers, an especially mentalities. Many societies still think that STIs and HIV are associated with minorities and drug addicts, and do not realize it can happen to anyone. The other problem that contributes to a bad outcome in the efforts to contain STIs is the inadequate barrier methods, and the small options available. Male condom is the only best way to decrease chance of STI infection. Female condoms are also feasible but they are

expensive. However, inciting the use of condom is still a key component in prevention campaigns and it should be made available readily and cost-free to everyone, especially to the most risky groups. In the near future, diaphragm and spermicides will probably be an added ally in prevention of STI, if proved effective.

Another problem contributing to the poor outcome in trying to control STIs, are the health care services itself. In many countries there is inappropriate treatment, no follow up (especially of sexual partners), in resource –poor countries or communities many services are unavailable like screening of asymptomatic infections, lack of trained personnel, unappropiate access to specific medicines to treat some of the STIs. Also, population at higher risk (like homosexuals, drug addicts, sex workers) does not have access to adequate health care systems.

Many efforts have been tried to overcome these problems. A few behavioural changes can be used to improve healthy sexual behaviour like the successful example in Uganda and Thailand. In this sense, one should speak about unification, that is, the collaboration between countries, to share experiences and informations, partnerships with appropriate agencies. When possible, interventions and strategies should be evidence based. In here the concept of "PDAS" is applied: Plan, Do, Assess, and Scale up (is successful). For this it is necessary periodic treatment in specific risk population groups, social marketing for the need for STI control, user friendly services for adolescents and finally more male involvement and more male services for men. Another important thing is the creation of second generation surveillance, resulting from the effort to better notification, creation of sentinel sites for better assessment of STI progression and control. There should also be more sympathy between health care providers, and both public and private centres should aid efforts to stop the progression of STI.

The Global fight to STI will need a technical component, i.e. each country is unique and therefore the strategies should be adaptable to each country and its different regions, and an advocacy component, i.e. increased awareness and mobilization of resources worldwide.

All these efforts in decrease the STI infections have two main goals: to decrease the burden of STI and of HIV transmission risk, and to decrease complication in women (infertility, vertical transmission, PID, ectopic pregnancy, etc).

7.1 STI among young adults

The main target in prevention is still among young adults and teenagers, and interventions should be adapted to their age and degree of development. It is necessary to repeatedly explain the routes of transmission, the protective measures and to give information about risk behaviours, and to achieve personal motivation by adding quality to education. There are a number of beliefs regarding these diseases that may constitute an impediment to prevention. For example, those who believe AIDS to be exclusively a disease of toxic-dependants and homosexuals, will disregard all the information and slow down the preventive care by considering themselves out of that group and therefore, immune to disease . Those who have and added negative attitude towards HIV infected will tend to reject information and value incorrect concepts. Also, the generalized idea that the sexual education/ information favours the sexual initiation is contradicted by recent investigations. The main goal of sexual education is not to decrease the incidence of sexual relationships among youngsters, but on the contrary, that each one assumes its sexuality and his/ her partner with respect and responsibility. Sexual relationships among youngsters is not denied or condemned and, the important is that each adolescent know the options and risks they have.

According to the United Nations Report (UNICEF, 2002), publicized in June 2002, the great majority of youngsters do not have any clue on how AIDS is transmitted, and how to protect from it. Most of them, trust in their capacity to recognize an HIV infected person (by observation) and associate the disease to marginal groups (toxic-dependents, homosexuals), having the perception that they are not at risk , and that they can trust their partner, as it belongs to friend's group. They initiate their first relationships without planning, and many times involved in a high dose of romance (in love). These are some

of the reasons that seem to justify the high number of young people that have unprotected sexual relationships, although this incidence have been decreasing in younger generations (Instituto Nacional de Estatística, INE, 1997).

In fact, young people constitute a vulnerable group in relation to STI and AIDS, and they are so not because they reject the use of anti-conceptive methods, like the pill and condom but, most of them feel safe because their relationships are in the most number of cases, more or less durable and assumed by each parts. It is confirmed the belief by many university students, that it is not necessary to practice « safe sex » with a partner they know well, and whom they love and trust. That is, being normal that the young adult protects himself in the beginning of a relationship, the tendency is that, as soon as they realize the relationship is serious, they no longer need special protection, although nothing can lead to the conclusion that the same person that before needed a special care, after some months no longer needs so. There is then the erroneous perception that a relationship based in love is safe.

Despite the enormous diffusion of information about STI/ AIDS, many young people still seem to be mal informed or confused about the problem. On the other hand, it is still confirmed that, although conscious about the danger from high risk behaviours, little are the ones that modify their behaviour.

Most of them, leave their progenitors house to go to University, and the process of separation-individualization favours a bigger exposure to new social/ sexual interaction and consequently, new dangers (alcohol, drugs, tobacco, bad eating habits, violence). Therefore, in this field full of risky situations, the role of information and education is very important, but attention must be paid to the way it is processed. School has a fundamental role, as the success in prevention of risk behaviour through information will be as much higher as better it is adapted to the global context of values that interest the young students. These values are related with their desired lifestyles, and with responsibilities they will have to assume to meet their self characteristics, origins and life project. It is during the school time and space that education between the couples and

the colleagues becomes fundamental to the success and promotion of health in general, to the solidarity among infected and affected, and to the prevention of STI/ AIDS .It is during this time that cooperation with adults and professionals, in their role as providing support and supervision, that youngsters tend to reach the spotlight and rising autonomy, resulting from the acquisition of personal competences.

7.2 STI prevention tips

One of the main targets of the Public Health Services is to prevent the occurrence and transmission of sexually transmitted diseases.

Many strategies have been suggested, but sexual abstinence (either anal, oral or vaginal) is considered the best option, but the less acceptable by youth. However, other measures have satisfactory outcomes and are a good option to those who do not wish to interrupt sexual activity. In this sense, the concept of monogamy is very important, i.e., having sex with one partner at a time, having in consideration that the partner is not infected and is also monogamic. One should look to initiate sexual activities with stable relationships, minimizing therefore the number of sexual partners, and therefore decreasing the risk of the disease. Communication is also very important. Partners should talk about their fears and their history in the sexual field, communicate previous sexual transmitted diseases, discuss the most adequate method for prevention, and in this way reinforce trust and alliance with one another. Condom use is the best way to prevent transmission and should be encouraged to be used in all sexual activities. Regular check ups should be performed at least once a year, and finally, if any of the partners contract a bacterial infection, sexual activity should be stopped until treatment is established and infection issued.

It is important to notice that the most important ally in combating STI is each individual, talking in consideration all these tips. Therefore, it is important to provide information and spread the world among communities, so that all together, individuals, institutions, communities and countries, can take a big step in the contention of these diseases.

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