



## Behavior of Sexually Transmitted Infections in Adolescents. Cuba. 2016-2020

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### Abstract

**Introduction:** Adolescence has traditionally been defined as the age of transit between childhood and adulthood (10 to 19 years of age). During this stage, the risk of sexually transmitted infections increases, affecting sexual and reproductive health. The problem of STIs is a global concern and Cuba does not escape this reality.

**Method:** Retrospective descriptive study of the total number of cases of adolescents diagnosed with sexually transmitted infections in Cuba in the period from 2016 to 2020. The information was obtained from the statistical information system of the Ministry of Public Health.

**Results:** the total number of cases diagnosed with sexually transmitted infections (syphilis, gonorrhea, condyloma acuminata and genital herpes) were 13,756 adolescents during the years analyzed. The female sex was the most affected in the infections studied except in gonorrhea infection. A decrease in the incidence of cases was observed in the years studied.

**Conclusions:** Tendency to decrease infection by Syphilis, Condyloma Acuminata, Gonorrhea and Genital Herpes Simplex in adolescents in Cuba in the period 2016-2020. The female sex was the most affected for these infections studied.

**Keywords:** Adolescence; Sexually Transmitted Infections

### Introduction

Adolescence is a period in biological, psychological, sexual development immediately after childhood and that begins with puberty where it seeks to strengthen the personality and roles that will develop in society. It is considered a period of human develop-

ment in which an important decision-making process of the subject with respect to himself begins; it is also the beginning of the transition to adulthood [1-4].

There are sexual behaviors that are associated with an increased risk of STIs. It is cited that 76% of adolescents initiate the earli-

est sexual relations, with 16 years or less; the existence of many sexual partners or a sexual partner who has many sexual partners; frequency of having occasional sex with unknown partners could occur; poco knowledge and presence of myths about contraceptive methods (MAC), Other risk factors relate to deficiencies in education about responsible sexual behavior in schools, the community and at home, especially in dysfunctional families [5-7].

WHO estimated 333 million new cases of curable sexually transmitted diseases in people aged 15 to 49 years. In the U.S., 15 million people are infected with one or more STIs annually. In Latin America and the Caribbean, between 35 and 40 million cases were infected with more than 100,000 average infections per day. In relation to HIV, in the world about 38.6 million people suffer from it; of them 10.3 million are young people aged 15 to 24 years, 42% were recently infected. On the other hand, 50% of new infections, almost 6,000 daily, occur in young people. If a sex analysis is done, it can be seen that it infects an increasing number of women, and at significantly younger ages than in the case of men [8-13].

In Cuba, around 50,000 cases of STIs are reported annually. Among the most common are blenorrhagia, syphilis, non-gonococcal urethritis, condyloma acuminata, trichomoniasis, genital herpes simplex and HIV/AIDS [13].

The current situation of Sexually Transmitted Infections and HIV/AIDS in the world is in a new era of hope. After sustained efforts to contain the devastation of communities and regions threat-

ened by the disease, a new stage of coping opens today aimed at achieving a definitive end to the HIV epidemic and the control of STIs [14].

The present study is carried out with the aim of exploring the behavior of sexually transmitted infections in adolescents as a vulnerable group and exposed to risk in order to continue working towards their control.

**Methods**

A retrospective descriptive study was conducted where sexually transmitted infections such as syphilis, Gonorrhoea, Condyloma acuminata and genital herpes simplex are exposed in the period 2016 to 2020 in the adolescent population.

The source of information was obtained from the Statistical Information System of Notifiable Diseases (EDO) of the Ministry of Public Health of Cuba. The results are presented in the form of tables and graphs.

**Analysis of the Results**

Table 1 shows the incidence of syphilis according to the 2016-2020 course with a total of 3741 cases. The year 2017 was the one with the highest number of reports with 875, as of this year the trend was to decrease, with 2020 being the one with the lowest report with 621 cases. As for sex, it can be seen that the female sex is the most affected both among the group of 10-14 and those of 15 to 19 years.

Year	10-14				15-19				Total	
	Male		Female		Male		Female			
	No.	%	No.	%	No.	%	No.	%	No.	%
2016	16	2,1	35	4,5	267	34,6	454	58,8	772	20,6
2017	7	0,8	45	5,1	295	33,7	528	60,3	875	23,4
2018	13	1,7	33	4,2	239	30,6	495	63,5	780	20,9
2019	8	1,2	24	3,5	234	33,8	427	61,6	693	18,5
2020	6	1,0	28	4,5	200	32,2	387	62,3	621	16,6
Total									3741	100,0

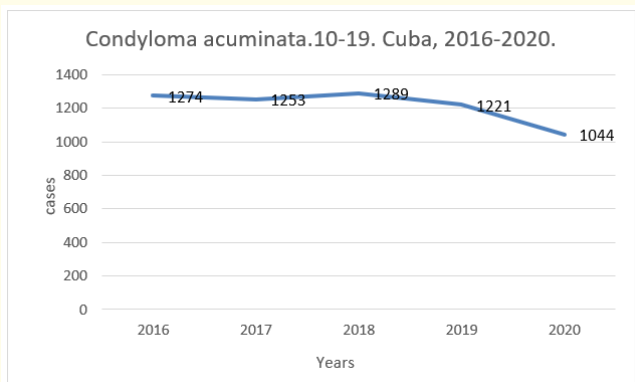
**Table 1:** Syphilis behavior by age and year. 2016-2020.

Table 2 and Graph 1 show the decreasing trend of Condyloma acuminata from 2016 with a slight peak in 2018, although with

alarming figures of a total of 6081 in them. Ages 15 to 19 reported the most of this STI.

Year	10-14				15-19				Total	
	Male		Female		Male		Female		No.	%
	No.	%	No.	%	No.	%	No.	%		
2016	15	1,2	61	4,8	412	32,3	786	61,7	1274	21,0
2017	11	0,9	70	5,6	387	30,9	785	62,6	1253	20,6
2018	18	1,4	70	5,4	388	30,1	813	63,1	1289	21,2
2019	14	1,1	66	5,4	395	32,4	746	61,1	1221	20,1
2020	19	1,8	63	6,0	339	32,5	623	59,7	1044	17,2
Total									6081	100,0

**Table 2:** Behavior of Condyloma acuminata by age group and sex. 2016-2020.



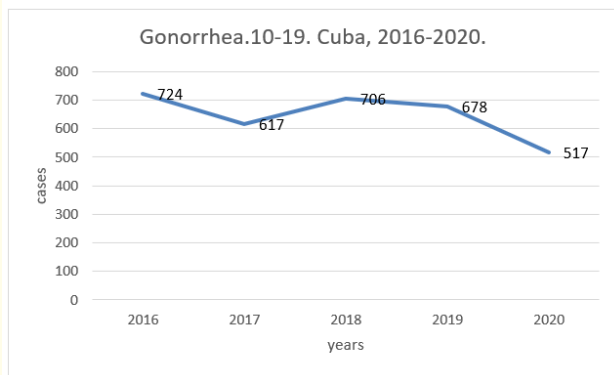
**Graph 2:** Behavior of Gonorrhea infection by year. 2016-2020.

Table 3 shows a decrease in the number of total cases reported due to gonorrhea infection, which highlights a predominance of the male sex for both age groups 10-14 years and 15 to 19 years.

Graph 2 shows a tendency to decrease this infection in the years studied.

Year	10-14				15-19				Total	
	Male		Female		Male		Female		No.	%
	No.	%	No.	%	No.	%	No.	%		
2016	20	2,8	15	2,1	449	62,0	240	33,1	724	22,3
2017	19	3,1	6	1,0	387	62,7	205	33,2	617	19,0
2018	22	3,1	14	2,0	471	66,7	199	28,2	706	21,8
2019	11	1,6	20	2,9	468	69,0	179	26,4	678	20,9
2020	12	2,3	13	2,5	308	59,6	184	35,6	517	15,9
									3242	100,0

**Table 3:** Behavior of gonorrhea infection by age group and year. 2016-2020.



**Graph 2:** Behavior of Gonorrhea infection by year. 2016-2020.

When analyzing the behavior of genital herpes simplex infection by age and year of occurrence table 4, we found a predominance of the male sex in the ages of 15 to 19 years. Between 2016 and 2020, 692 cases were diagnosed in adolescents. Between 2016 and 2019 the cases ranged from 151 to 140 but in 2020 the report was lower with 109.

**Discussion**

The adolescent population in Cuba represents 11.92% and attention to them has been important in the sectors of the Ministries of Education and Public Health [7].

Year	10-14				15-19				Total	
	Male		Female		Male		Female		No.	%
	No.	%	No.	%	No.	%	No.	%		
2016	11	7,7	5	3,5	35	24,5	92	64,3	143	20,7
2017	7	5,0	13	9,3	39	27,9	81	57,9	140	20,2
2018	4	2,7	12	8,1	46	30,9	87	58,4	149	21,5
2019	10	6,6	10	6,6	51	33,8	80	53,0	151	21,8
2020	7	6,4	9	8,3	33	30,3	60	55,0	109	15,8
Total									692	100,0

**Table 4:** Behavior of genital herpes simplex infection by age and year. 2016-2020.

Sexually transmitted diseases (STDs) or sexually transmitted infections (STIs) are infections that are transmitted from one person to another through sexual contact. Contact is usually vaginal, oral or anal. But sometimes they can be transmitted through other intimate physical contact. This is because some STDs, such as herpes and HPV, are transmitted by skin-to-skin contact.

One of the causes of STIs in adolescents is child violence or child abuse. The authors consider that when STI is diagnosed in adolescents, it is present in addition to sexual abuse, physical abuse and psychological or emotional abuse. The authors agree with Barbero Funks regarding the characteristics of the victimization process and quoting María Amelia Acevedo places them at risk due to the high probability of suffering the violation of human rights: Right to life, health, food, education, security [15-17]. It really is the worst form of human rights violation.

It is a growing phenomenon of global connotation that encompasses complex forms. It is a phenomenon that affects all social and cultural strata. Worldwide it is described that increase in figures related to sexual abuse with figures of 20-30% during childhood in the female sex, although in men it is spoken in 10%. Alarming numbers ranging from 39 to 83% in disabled girls [18-20].

In Latin America: Only one in three cases of sexual abuse is reported, and 80% of these complaints correspond to girls and adolescents. In the Caribbean region: 11% of adolescent women report being victims of sexual abuse [21,22].

Studies on family health in cases of sexual abuse have shown significant association with dysfunctional families: Unadjusted parents, not socially adapted, presence of marital conflicts and/or with the rest of the family. Low school level, poor accommodation, overcrowding prevail. Existence of addictions such as alcoholism or drug use [17].

The largest percentage corresponds to acute aggression with a predominance of lewd abuse. It could be considered that they are victims of this social and family environment [23].

When the fact is made known either by confession of witnesses or by suspicion of relatives, a criminal investigation process is initiated. In the different procedural acts that take place during the investigation phase, the revictimization or secondary victimization of the minor can be provoked [24].

The main elements that generate the revictimization are: the delay of the actions and multiplicity of explorations prior to the designed process, the presence of the victim during the formulation of the complaint and the obtaining of his testimony in addition to the practice of examinations or legal medical expertise necessary to perform [24].

In Cuba, the Centers for the Protection of Children and Adolescents (CPNNA), responsible for the comprehensive care of minors who are victims of child sexual abuse, advocate that the conditions and elements that lead to secondary victimization be eliminated after the physical and mental well-being of the adolescent.

Taking into account the political will of the Cuban Government as a signatory to the Convention and in compliance with the provisions of article 8 of the Optional Protocol to the Convention, methodologies for the protection and care of minors who are victims of sexual abuse were developed. Hard work is done to offer specialized treatment in criminal prosecution that causes the secondary victimization of adolescents mostly victimized by society or domestic or gender violence that are generally exposed [25].

However, it has been identified that adolescents do not have in many cases, adequate sex education, so they are a risk group par excellence to contract sexually transmitted infections or in another plane they can also reach an early maternity or paternity for which they are neither objectively nor subjectively prepared [1-5].

The processes of sti/HIV/AIDS prevention, as well as sexuality education and the gender approach, are programs prioritized by the Cuban state and government, taking into account the behavior of the HIV epidemic and the most frequent problems of sexual life that adolescents, young people and other vulnerable groups still present [6].

We believe that educational interventions are necessary with the incorporation of a participatory methodology, which allows reflection from the bottom up, which involves the social-community level, and above all personal, from where the seeds for change begin to take shape [14,15].

These instruments should integrate not only the gender perspective, but also broaden the vision and understand that existing generic relationships outline a form of development and participation. Gender, sustainability and participation must be three moments that are linked in the same process [25-32].

They are included within the proposals of the Sustainable Development Goals in the post-2015 development agenda: "Transforming our world: the 2030 Agenda for Sustainable Development" and determined in the Guidelines of the economic and social policy of the Party and the Revolution [33-35].

- Objective 3. Ensure healthy living and promote well-being for all at all ages.
- Objective 4. Ensure inclusive, equitable and quality education and promote lifelong learning opportunities for all.
- Objective 5. Achieve gender equality and empower all women and girls.
- Objective 16. Promote peaceful and inclusive societies for sustainable development, facilitate access to justice for all and build effective, accountable and inclusive institutions at all levels.

The authors consider that the working guidelines should be aimed at:

- To promote existing family planning and reproductive risk services and to develop new services in institutions that respond to identified needs.
- Improve the management and control of preconceptional reproductive risk.
- Improve the performance of staff who relate to family planning and reproductive health in particular the doctor, the family nurse.
- Facilitate the integration and complementarity of the activities of the sectors involved in the areas related to family planning and the promotion of equality between men and women.

- Improve knowledge and encourage reflection and participation of the individual, the couple, the family and the community in aspects related to family planning, so that they adopt responsible behavior in this area:
- Provide knowledge, guidance and services to groups of adolescents and young people responding to their needs in relation to comprehensive health.
- Great importance is attributed to the medical-pedagogical integration with a comprehensive sexuality education with quality.

### Conclusions

- There is a tendency to decrease STIs in Cuba in terms of Syphilis, Condyloma Acuminate, Blenorrhagia and Genital Herpes Simplex.
- The female sex was the most affected in Syphilis, Condyloma Acuminate and Genital Herpes Simplex. Blenorrhagia is reported with a higher incidence in males.
- Interdisciplinarity and intersectorality in health promotion and prevention for STIs/HIV/AIDS in adolescents should be encouraged.

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