

# Evaluation of Young People's Knowledge, Attitudes and Behaviour Regarding HIV/AIDS in Isangi, DR Congo

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## Abstract

**Background:** Over 50% of young people between the ages of 15 and 24 are affected by HIV. This state of affairs is destroying youth, threatening the country's future and jeopardizing national development. The aim of this study is to assess the knowledge, attitudes and behaviour of young people in the city of Isangi with regard to HIV/AIDS. **Materials and Methods:** To collect the data, this descriptive cross-sectional study used a questionnaire administered to a non-probability convenience sample of 70 young people aged 16 to 20. The descriptive analysis enabled us to compare our results with previous work. **Results:** We observed that the average age of our respondents was 18, with a sex ratio of 1.4 in favor of males. 95% of young people had already heard of AIDS. Over 65% of subjects have acceptable knowledge of the risk of contracting HIV, the route of transmission and condom use. Prevention of mother-to-child transmission and voluntary testing were recognized. 70% of young people agreed to take care of a PLHIV in their family while keeping his or her serostatus secret (75.7%). For 40% of subjects, it is not normal for a woman to refuse to have sex with her unfaithful partner; she can demand a condom. **Conclusion:** To reduce HIV transmission among young people, an information and education program is needed.

**Keywords:** Knowledge, Attitude, Behavior, Young, Infection, HIV, AIDS, Tshopo.

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## I. INTRODUCTION

AIDS is increasingly becoming a disease of the young. More than 50% of new infections worldwide are among young people aged 15 to 24. This state of affairs is destroying young people, threatening the country's future and jeopardizing national development.

For the year 2019, UNAIDS estimated the number of people living with HIV (PLHIV) worldwide at 38 million. Annual new HIV infections and deaths were estimated at 1.7 million and 690,000 respectively [1].

Around 61% of people living with HIV/AIDS are women, and young women in the 15-25 age bracket are three times more likely to be HIV-positive than young men in the same age group [2].

In sub-Saharan Africa, over 25 million people are HIV-positive, accounting for around 70% of the

world's infected people. Poverty, gender inequality and the displacement of people due to conflict or natural disaster are the socio-economic factors likely to increase people's vulnerability to HIV infection [3]. In Mali, for example, the prevalence of HIV infection among the general population is estimated at 1.3%, and among young people aged 15-19 at 0.5%. High-risk sex (sex with an extramarital, non-cohabiting partner) is more frequent among young women in secondary school; and condom use during high-risk sex among these young women aged 15-19 appears low (30.6%) [3].

In DR Congo, the results of the 2013 - 2014 demographic and health survey revealed that 1.2% of adults aged 15-49 are HIV-positive. The seroprevalence rate among women aged 15-49 (1.6%) is almost three times higher than that estimated for men of the same age (0.6%). This results in an infection ratio between women and men of around 2.7, or 267 infected women per 100 men.

Overall, the proportion of HIV-positive people increases with age: from a low of 0.5% among 15-19 year-olds, it rises to 1.9% at 35-39; this proportion then falls slightly to 1.6% at 45-49 [4].

The HIV epidemic does not affect the different provinces of the DRC in the same way. This applies to both men and women. Prevalence levels are highest in Maniema (3.9% and 4% respectively), followed by the former Orientale province (3.9% and 0.5% respectively), Kinshasa (2.6% and 0.3% respectively) and Kasai Oriental (2.4% and 1.1% respectively). In contrast, prevalence is lowest in Bas-Congo (0.3% and 0.1% respectively) and Bandundu (0.5% and 0.1% respectively) [4].

Lack of sex education at school and at home is a major problem, as evidenced by the fact that 33% of all pregnancies and 26% of all abortions occur in the under-20s, and the high incidence of sexually transmitted infections in both urban and rural areas [5].

Young people are increasingly exposed to the influence of erotic messages broadcast by the media, leading them to have sexual experiences for which they are not yet prepared.

However, despite the goal of reducing STI (sexually transmitted infections) and HIV transmission, improving universal access to care and treatment, mitigating the socio-economic impact of HIV and AIDS, and supporting the implementation of the national strategic plan and IEC campaigns, the problem of STIs and HIV/AIDS infection remains real among young people [6].

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However, despite the goal of reducing the transmission of STIs and HIV, improving universal access to care and treatment, mitigating the socio-economic impact of HIV and AIDS and supporting the implementation of the national strategic plan, as well as information, education and communication campaigns, the problem of sexually transmitted infections and HIV/AIDS remains real among young people [6].

This work will serve as a database for in-depth studies of HIV/AIDS among young people in the Isangi township. Its results will enable them to grasp the extent of HIV infection.

## II. MATERIAL AND METHODS

The present cross-sectional study adopted a descriptive approach. It was conducted among young people aged 16 – 20 in the city of Isangi in Tshopo province from January 1 to April 30, 2018. Was eligible, any young person aged 16 – 20 years in the city of Isangi, member of the selected households and who agreed to answer our questionnaire after informed verbal consent. Excluded from the study were all young people in the isangi city aged under 16 and over 20. For lack of a reliable sampling list, we resorted to non-probability convenience sampling of 70 young people aged 16 – 20. Information was collected using a standardized, pre-tested questionnaire. The tool consisted of 30 questions written in French, including 4 open-ended questions, 23 closed-ended questions and 3 filter or passage questions. After manual tabulation, the data were presented in headcount tables. Descriptive analysis enabled us to compare our results with previous studies. Young people's anonymity, confidentiality and informed consent were respected.

## III. RESULTS

### 3.1. Description of Subjects

**Table 1: Distribution by socio-demographic characteristic of Isangi youth on HIV/AIDS in 2018.**

Socio-demographic variables	Staff	%
Age (years)		
20	16	22.9
19	8	11.4
18	16	22.9
17	13	18.5
16	17	24.3
Gender		
Male	41	58.6
Female	29	41.4
Education		
Secondary	62	88.6
Higher	8	11.4
Marital status		

Socio-demographic variables	Staff	%
Married	10	14.3
Single	60	85.7
Religion		
Catholic	34	48.6
Protestant	10	14.3
Kimbanguist	4	5.7
Revival churches	22	31.4
Total	<b>70</b>	<b>100.0</b>

The average age is 18, with a sex ratio of 1.4 in favor of men. More than 85% of young people have reached secondary school level, of whom 85.7% are single, the majority Catholic (48.6%).

### 3.2 Knowledge and Attitudes Towards HIV/AIDS

#### 3.2.1. Knowledge of the Existence Of AIDS

**Table 2: Opinion of Isangi youth on the existence of AIDS in 2018**

Have heard of AIDS	Staff	%
Yes	68	97.1
No	2	2.9
Total	70	100.0

Over 95% of young people surveyed have heard of AIDS.

#### 3.2.2 Knowledge of HIV Prevention and Transmission Methods

##### 3.2.2.1 Preventing HIV by Having only one Partner

**Table 3: Isangi young people's 2018 knowledge of how to prevent HIV by having a single sexual partner.**

Respondents' answers	Staff	%
Yes	49	70.0
No	13	18.6
Don't know	8	11.4
Total	<b>70</b>	<b>100.0</b>

70% of young people recognized that the risk of contracting HIV can be avoided by having just one sexual partner who is not infected and who has no other sexual partner.

##### 3.2.2.2 HIV Prevention Through Condom Use

**Table 4: Knowledge of young people in Isangi in 2018 about how to prevent HIV by using condoms during every sexual encounter.**

Respondents' answers	Staff	%
Yes	46	65.7
No	11	15.7
Don't know	13	18.6
Total	<b>70</b>	<b>100.0</b>

65.7% of young people said that the risk of contracting the AIDS virus can be reduced by using condoms during every sexual encounter.

#### 3.2.3 Misconceptions About HIV/AIDS

##### 3.2.3.1 Transmission of HIV By Mosquitoes

**Table 5: Isangi young people's 2018 knowledge of HIV transmission by mosquitoes**

Respondents' answers	Staff	%
Yes	5	7.1
No	62	88.6
Don't know	3	4.3
Total	<b>70</b>	<b>100.0</b>

Over 85% of young people rejected the idea that the AIDS virus can be transmitted by mosquitoes.

### 3.2.3.2 HIV Transmission Through Food

**Table 6: Isangi young people's 2018 knowledge of HIV transmission by sharing food with someone who has AIDS.**

Respondents' answers	Staff	%
Yes	4	5.7
No	60	85.7
Don't know	6	8.6
Total	<b>70</b>	<b>100.0</b>

85.7% of young people agreed that HIV cannot be transmitted by sharing food with someone who has AIDS.

### 3.2.3.3 Transmission of HIV by supernatural means

**Table 7: Isangi young people's 2018 knowledge of HIV transmission by supernatural means**

Respondents' answers	Staff	%
Yes	11	15.7
No	51	72.9
Don't know	8	11.4
Total	<b>70</b>	<b>100.0</b>

Over 70% of young people did not agree that HIV can be transmitted by supernatural means or witchcraft. On the other hand, around 15% did support this misconception.

### 3.2.4 Transmission of HIV by a Healthy Person

**Table 8: Isangi young people's 2018 knowledge of HIV transmission by a healthy person**

Respondents' answers	Staff	%
Yes	50	71.4
No	11	15.7
Don't know	9	12.9
Total	<b>70</b>	<b>100.0</b>

Over 70% of the young people surveyed said that a person in good health could have the AIDS virus.

### 3.2.5 Prevention of Mother-To-Child Transmission of HIV

#### 3.2.5.1 How HIV is Transmitted from Mother to Child

**Table 9: Isangi young people's knowledge of mother-to-child transmission of HIV in 2018**

Transmission mode	Yes		No		Don't know	
	Staff	%	Staff	%	Staff	%
During pregnancy	37	52.9	23	32.9	10	14.2
During childbirth	48	68.6	13	18.6	9	12.8
During breastfeeding	30	42.9	33	47.1	7	10.0

From this table, the majority of subjects affirmed that the AIDS virus can be transmitted from mother to child during pregnancy (52.9%) and childbirth (68.6%). On the other hand, over 45% did not agree that HIV can be transmitted from mother to child during breastfeeding.

#### 3.2.5.2 Taking Special Medications During Pregnancy

**Table 10: Knowledge of young people in Isangi in 2018 about reducing maternal transmission of HIV to the child by taking special medication during pregnancy.**

Respondents' answers	Staff	%
Yes	39	55.7
No	24	34.3
Don't know	7	10.0
Total	<b>70</b>	<b>100.0</b>

Over 55% of young people surveyed said that there are special drugs that a doctor or nurse can give to an HIV-infected woman to reduce transmission of the virus to her child.

### 3.2.6 HIV Testing Centers

**Table 11: Knowledge of young people in Isangi in 2018 about where to go for HIV testing**

HIV testing site	Staff	%
Hospital	38	59.4
Health center/health post	3	4.7
Voluntary counseling and testing center	23	35.9
Total	<b>64</b>	<b>100.0</b>

This table shows that 59.4% of subjects chose the general hospital as their place of HIV testing. On the other hand, almost 36% indicated the voluntary counseling and testing center.

### 3.2.7 Stigmatization of People Living With HIV

**Table 12: Attitudes of tolerance towards people living with HIV/AIDS among young people in Isangi in 2018 (n=70)**

Tolerant attitudes	Yes		No		Don't know	
	fo	%	fo	%	fo	%
Caring for a PLHIV *	49	70.0	9	12.9	12	17.1
Buying vegetables for PLHIV *	48	68.6	13	18.6	9	12.9
Assign classes to PLHIV *	37	52.9	7	10.0	26	37.1
Discretion	53	75.7	12	17.1	5	7.1

\* PLHIV = person living with HIV

The table shows that 70% of young people would take care of a family member contracting HIV/AIDS, while 68.6% would buy vegetables sold by people living with the AIDS virus.

Over 50% of young people said that a teacher with the AIDS virus, if not ill, should be allowed to teach

at school. On the other hand, the secret status of people living with the AIDS virus was accepted by 75.7% of the young people questioned.

### 3.2.8 STI and HIV Prevention

#### 3.2.8.1 Negotiating Safe Sex with Partners

**Table 13: Opinion of Isangi youth in 2018 on negotiating safe sex with a spouse (n=70)**

Rapport sexuel avec le conjoint	Yes		No		Don't know	
	Staff	%	Staff	%	Staff	%
Lack of condom	44	62.9	15	21.4	11	15.4
Unfaithful	27	38.6	28	40.0	15	21.4
When you don't want to	36	51.4	10	14.3	24	34.3
Using a condom	33	47.1	9	12.9	28	40.0

This table shows that 62.9% of young people think it's normal for a woman to ask her husband/partner who has an STI to use a condom during sex.

#### 3.2.8.2 Knowledge of the Existence Of STI

**Table 14: Breakdown of Isangi young people in 2018 on pathologies cited as STI (n=70)**

Pathologies cited as STI*	Staff	%
AIDS	47	67.1
Syphilis	46	65.7
Gonorrhoea	37	52.8
Gonococcal disease	9	12.9
Vaginal trichomoniasis	1	1.4
Herpes	2	2.9
Don't know	8	11.4

\*STI: Sexually transmitted infections

Almost all the young people were aware of the pathologies considered as STIs, with a high proportion for AIDS (67.1%), syphilis (65.7%) and gonorrhea

(52.8%). However, 8 subjects (11.4%) had no knowledge of STI.

### 3.2.9 Recommendations for People Living With HIV

**Table 15: Distribution of Isangi young people in 2018 according to their suggestions to people with HIV/AIDS**

Recommendations for PLHIV *	Satff	%
ARV** treatment	30	42.9
Preventive measures	35	50.0
Prayer	2	2.9
Don't know	13	18.6

\* PLHIV =persons living with hiv, \*\*ARV= antiretrovirals

The majority of young people surveyed recommend preventive measures (50.0%) and ARV treatment (42.9%) to people with HIV/AIDS. On the other hand, a no less negligible 18.6% of young people have no idea on the subject.

## IV. DISCUSSION

### 4.1. Description of the Study Population

The average age of our subjects was 18 years, with a male/female sex ratio of 1.4. Tano-Ve and Kanon found a male predominance with respective rates of 65.5% boys vs. 34.5% girls in Abidjan and 68% boys vs. 32% girls in Banfora [7, 8].

A population's level of education reflects the progress it has made in terms of schooling and even development. It contributes to improving the living conditions of household members and society in general. The level of education also influences reproductive behavior, the use of modern contraception, health behavior and hygiene and nutrition habits.

Data from the 2013 - 2014 Demographic and Health Survey showed that 19% of Congolese women have never attended school and therefore have no level of education, while among men this proportion is 8%. Thus, the proportion of uneducated women is around twice that of men.

This gap in educational attainment between women and men, to the detriment of women, can be observed at all levels, and tends to increase as the level of education rises. This situation reveals the inefficiency or structural dysfunction of the education system. By gender, the gross male rate is higher than the female rate (120% vs. 116%). It would seem, therefore, that more boys than girls attend primary school, even though they are under the official primary school age. In addition, secondary school attendance is much lower, with only 43% of 12-18 year-olds attending.

In the DRC, the gender parity index at primary level is estimated at 0.97. This shows that at primary level, girls are at a slight disadvantage compared with boys. At secondary level, the gap between girls' and boys' school attendance is higher (index of 0.68). Whether at primary or secondary level, the extent of this discrimination varies from one area of residence to another, and from one province to another [4].

On the subject of marital status, all legally married women and men and all people living in consensual unions were considered to be in union as part of the 2013-2014 Demographic and Health Survey in DR Congo. The results revealed that nearly three out of ten women (26%) were single at the time of the survey, and more than six out of ten (64%) were living in union: 46% were married and 18% were living in consensual union [4].

On this point, our results are superimposed on those of other authors. Tano-Ve *et al.*, Found that 98.7% of students were single, of whom 77% lived with their parents and 1.3% lived common-law, in a study carried out in 2003 in a high school in Abidjan [8]. Kanon, for his part, reported that 90.7% of single students, including 79.7%, lived with their parents in the town of Banfora [7].

This situation could be explained by the fact that young people, for lack of a source of income, are obliged to live with their parents or a guardian, on whom they are financially and socially dependent.

As far as religion is concerned, the results of the second demographic and health survey of 2013 - 2014 showed that more than one in three women (37%) and one in three men (34%) declared themselves to be of the "other Christian" faith. This could be explained by the fact that this group is made up of followers of revivalist churches, which are growing rapidly throughout the country. The Catholic religion comes second : 30% of women and 31% of men ; the Protestant religion comes third : 27% for each sex.

Kimbanguists account for 3% of both genders, while 1% of women and 2% of men are Muslims. It should also be noted that 1% of women and 3% of men declared "no religion" [4].

### 4.2 Knowledge and Attitudes Towards HIV/AIDS

The Demographic and Health Survey (2013 - 2014) showed that almost all women (94%) and men (97%) said they had heard of HIV/AIDS. Whether women or men, the proportions of those who have heard of HIV/AIDS are lowest among single people who have never had sex, in rural areas, among people with no level of education and among those whose household is classified in the lowest quintile [4].

The predominant role of the media (television, radio) as a source of information in the acquisition of knowledge has also been revealed in other studies [9]. The role of parents remains one of the least-used sources, despite the fact that the majority of respondents live with their families. In our context, topics relating to sexuality remain taboo and are very rarely discussed within the family between parents and children. As Adjahoto [9] has pointed out, this situation could be explained by parents' fear of focusing their children's attention on sexuality, or by parents' own ignorance, since we can only pass on what we know.

Public awareness of the means of prevention is essential if we are to effectively combat the spread of the virus that causes AIDS. Limiting sexual relations to a single faithful, uninfected partner and the use of condoms remain the main means of preventing HIV infection.

During the 2013 - 2014 survey in DR Congo, respondents were asked a series of questions to assess their knowledge of HIV prevention methods. Nearly six out of ten women (56%) and nearly three out of four men aged 15-49 (73%) stated that the risk of contracting HIV/AIDS could be limited by using condoms. Furthermore, when asked whether limiting sexual relations to a single uninfected sexual partner could prevent contracting HIV, 75% of women and 83% of men answered in the affirmative. Overall, 51% of women and 67% of men aged 15-49 were aware of both means of prevention. [4].

In this study, 70% of young people recognized that the risk of contracting HIV can be avoided by having just one sexual partner who is not infected and who has no other sexual partner.

Knowledge of the two means of prevention mentioned above varies according to different socio-demographic characteristics. It is in urban areas, among the most educated and those whose households are classified in the highest quintile, that the proportions of women and men who know these two means of HIV prevention are the highest [4].

The unsystematic use of condoms by young people during sexual intercourse, as reported in our study and by other authors [10], remains a core issue on which health education should build its programs in order to identify the real reasons and their socio-cultural determinants, a guarantee of its acceptance and an essential element in the fight against AIDS.

In addition to faithfulness, non-use of condoms is also attributed to conflict with a partner, in the form of "refusal by the partner to use a condom". Although this expression is difficult to analyze due to the nature and technique of our data collection, it contains several aspects whose exploration would provide very important

information. It has been shown [7] that condom use among schoolchildren decreases with the growth of affective feelings. In fact, "love", which implies trust in others, would also lead to non-use of protective measures, including condoms. The psychology of this sentimentalism has been well perceived by some health specialists, hence the promotion in health information and education messages of slogans such as "when you love, you protect".

In her analysis of the impact of HIV/AIDS in Haiti, Collette Vilgraine put forward the following hypothesis: "Poverty and gender inequalities have limited women's ability to negotiate condom use during sexual relations, thus promoting the spread of the epidemic, which was initially male-dominated, to the female population" [11].

Faced with such a sad situation, isn't it essential to think about a policy aimed at empowering the most economically vulnerable people? In addition to the likelihood of a person from a disadvantaged socio-economic background agreeing to have sex under any conditions, as long as these enable them to meet their basic needs, there is also the fact that the situation of poverty could lead the individual to indulge in unsafe sexual practices, even if he or she could do otherwise. What's sadder in this situation is the fact that some people use tricks to infect themselves with the sole aim of benefiting from the financial and food support of certain institutions involved in the care of people living with HIV.

Some young people in Isangi have an erroneous knowledge of the routes of transmission of AIDS, believing that it can be transmitted by mosquitoes 85% and by food.

Outliers were also found by Louis and Gresenguet in 1989, with 7.2% and 7.5% of respondents believing that kisses and 2% and 3.5% that mosquito bites can transmit AIDS. The frequency of outliers could be explained by the fact that information received through a friend is not always the safest, and the second most important source of information for young people about STIs/AIDS is friends [12].

In DR Congo, almost six out of ten men (59%) know that AIDS cannot be transmitted by mosquitoes; two-thirds (67%) reject the misconception that AIDS can be transmitted by supernatural means. Around three out of four men (76%) reject the idea that HIV can be transmitted by sharing an infected person's meal. Overall, 38% of men reject the most common misconceptions and know that a healthy person can nevertheless have AIDS.

In Isangi, over 70% of young people did not believe that HIV can be transmitted by supernatural means or witchcraft. On the other hand, around 15% did

support this misconception. This situation is due to belief. Religion is an integral part of Congolese life. According to their doctrines, there are three types of church in the country: traditional churches, western churches (Catholic and Protestant) and revivalist churches, an avatar of western churches. In addition, 10% of the population is Muslim.

In the daily lives of local players, there are strong links between traditional beliefs and churches. Being a member of a church does not in any way preclude strong adherence to traditional beliefs. Some of the interviewees affirmed the existence of witchcraft as an inherent fact of life in the community, which can expose people to HIV.

The churches play a very important role in the content of the messages disseminated by the various players. Their impact can be seen in all areas of public life, from schools to associations and health services. Nevertheless, the religious world and pastors remain key interlocutors in changing the image of the disease and bringing about a real reduction in HIV transmission. With regard to HIV transmission by a healthy person, over 70% of the young people surveyed said that a healthy-looking person could have the AIDS virus.

In fact, HIV/AIDS is diagnosed on the basis of laboratory tests. A person is declared seropositive if he or she is infected with HIV. Normally, HIV carriers are grouped into four categories: healthy seropositives, people who do not develop significant symptoms, seropositives with symptoms and seropositives with classic symptoms [13].

In DR Congo, an almost identical proportion of women (59%) and men (58%) know that the AIDS virus can be transmitted from mother to child during breastfeeding. What's more, 32% of women and 30% of men know that the risk of mother-to-child transmission can be reduced by the mother taking medication during pregnancy. Overall, 26% of women and 23% of men aged 15-49 are aware of both the risk of transmission through breastfeeding and the existence of a drug that can reduce the risk of maternal transmission during pregnancy.

The results of the 2013-2014 Demographic and Health Survey, also showed that knowledge of these two elements is mainly influenced, among both women and men, by the level of education and economic well-being of the household [4].

We found that 59.4% of subjects chose the general hospital as their HIV testing site. On the other hand, almost 36% indicated the voluntary counseling and testing center. During the 2013 - 2014 demographic and health survey in the DRC, it was observed that knowledge of a place where an HIV test can be carried out varies significantly according to all socio-

demographic characteristics, but is most influenced by place of residence, province, level of education and household standard of living [4].

On the subject of stigmatization towards people living with HIV, the 2013-2014 Demographic and Health Survey observed that 4% of women and 12% of men aged 15-49 would have behaved tolerantly towards this category.

Variations by socio-demographic characteristics are relatively small. Older women (5%), those living in urban areas (5%), those with higher levels of education (7%) and those living in households in the highest quintile (5%) would be more tolerant than others if faced with the four situations listed above [4]. With regard to the prevention of sexually transmitted infections and HIV, it should be noted that the promotion of safe sexual behavior is part of the measures designed to control the HIV epidemic. Moreover, since women are more vulnerable to HIV than men, it is important to know whether they are in a position to refuse risky sex with their husbands/partners.

Our results are superposable with those of the following authors on the subject of Isangi young people's knowledge of the existence of sexually transmitted infections:

- Sidibé *et al.*, [14], who in a study conducted in a high school in Bamako, found that HIV/AIDS was the sexually transmitted infection most cited by students (97.5%), followed by gonococcal disease (45%) ;
- Konaté *et al.*, [15] found that every female high-school student in Bamako reported knowing at least one STI. The most frequently cited STIs were AIDS, gonorrhoea and these two diseases in combination.
- Guiella and Woog [16] found that AIDS was known by most young people, both boys and girls (eight out of 10 knew of its existence), and that young people who had been to school were better informed about AIDS than those who had never been : 94% of boys and 95% of girls who had been to school had heard of AIDS, compared with 80% of boys and 79% of girls who had never been to school.

Young people's good knowledge of the existence of HIV/AIDS could be explained by the results of major awareness campaigns on this pandemic. Despite this good level of knowledge, the media and schools, our respondents' main sources of information, need to persevere with information campaigns in order to maintain this level of knowledge, with particular emphasis on other sexually-transmitted infections, the majority of which remain unknown to the population studied. This need was expressed by students at the University of Benin surveyed by Sallah [17].

If young people are aware of the existence of HIV/AIDS, it is even more important for them to understand how HIV can be transmitted and what effective means exist to prevent transmission, so that they can take effective protective measures.

Alongside a lack of information about the existence of HIV/AIDS, the individual's perception of his or her power to avoid infection is a very important element that should not be overlooked in the context of young people's vulnerability. According to some authors, the higher the level of concern about AIDS, the higher the perception of risk, the more the teenager adopts safe practices, or intends to do so. Thus, the best way to protect oneself from HIV/AIDS is to perceive the risk associated with a given sexual behavior and to realize that one has some control over the spread of the virus, i.e., one can adopt safer behaviors to protect oneself.

Prevention of HIV transmission and sexually transmitted infections at national level focuses specifically on behavior change communication supported by the provision of prevention services. These include voluntary and confidential counseling and testing services, evidence-based, age- and gender-sensitive sexual and reproductive education in and out of school; the promotion and uninterrupted availability of condoms and water-based lubricant gel, the promotion of post-exposure prophylaxis (also in the case of rape), including the prevention of violence, the diagnosis and management of sexually transmitted infections, the consideration of key populations as targets for prevention and the strengthening of the community system in synergy with grassroots sectors, the strengthening of civil society's capacity to provide, organize and advocate services, in order to produce the expected effects.

Interventions also focus on the collection of blood from loyal volunteer donors, and the availability of blood products of good quality (tested for all four markers) and in sufficient quantity.

## V. CONCLUSION

This study revealed that young people in Isangi have acceptable knowledge of sexually transmitted infections and HIV/AIDS. However, as regards their attitudes and behaviour, efforts still need to be made for effective prevention.

We therefore suggest that the Ministry of Primary, Secondary and Technical Education set up informative and educational programs to reduce the sexual transmission of HIV among young people.

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All authors attest to compliance with the criteria of the International Committee of Medical Journal Editors (ICMJE) with regard to their contribution to the article. All authors contributed to the conduct of this research and to the drafting of the manuscript. They have all read and approved the final version.

**DECLARATION OF LINKS OF INTEREST:** The authors declare that they have no links of interest.

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