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## Perfil clínico-epidemiológico de adultos hiv-positivo atendidos em um hospital de Natal/RN

Clinical-epidemiological profile of hiv-positive adults attended in a hospital from Natal/RN

Perfil clínico-epidemiológico de adultos vih-positivos tratados em un hospital de Natal/RN

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### ABSTRACT

**Objective:** to characterize the clinical-epidemiological profile and habits of life of HIV-positive adults. **Methods:** this is a descriptive, cross-sectional and quantitative study with a sample of 331 HIV-positive people with outpatient scheduling between February and August 2014 in a reference hospital from Natal/RN. Data collection was conducted through a semi-structured interview. **Results:** the results showed a predominance of men (52%), young people (42%) natural from the capital (58%), brown color (53%), single (56%), heterosexual (79%), poor (68 %). Most of them held the first anti-HIV test for less than five years (60%), had signs and symptoms of AIDS before the test (90%), were hospitalized (90%), started HAART for less than five years (60 %), suppose they have good knowledge of the disease (75%), and believe that their health has improved (92%). Most of them do not consume alcohol (71%), are non-smokers (88%), do not use illicit drugs (92%) and had never used preservatives before diagnosis (62%). **Conclusion:** the identified profile follow the national trends.

**Descriptors:** health profile; acquired immunodeficiency syndrome; HIV; nursing.

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## RESUMO

**Objetivo:** caracterizar o perfil epidemiológico-clínico e de hábitos de vida de adultos HIV-positivo. **Métodos:** estudo descritivo, transversal e quantitativo, com uma amostra de 331 pessoas soropositivas com agendamento ambulatorial entre fevereiro e agosto de 2014 em um hospital de referência de Natal/RN. A coleta de dados foi realizada através de entrevista semiestruturada. **Resultados:** os resultados mostraram predominância de homens (52%), jovens (42%), procedentes da capital (58%), cor parda (53%), solteiros (56%), heterossexuais (79%), pobres (68%). A maioria realizou o primeiro exame anti-HIV há menos de cinco anos (60%), teve sinais e sintomas da AIDS antes do exame (90%), foi internada (90%), iniciou o TARV há menos de cinco anos (60%), julga ter bom conhecimento sobre a doença (75%) e acredita que sua saúde melhorou (92%). Os pacientes não consomem álcool (71%), não fumam (88%) e não usam drogas ilícitas (92%), nunca usaram preservativos antes do diagnóstico (62%). **Conclusão:** o perfil identificado segue as tendências nacionais.

**Descritores:** perfil de saúde; síndrome de imunodeficiência adquirida; HIV; enfermagem.

## RESUMEN

**Objetivo:** caracterizar el perfil epidemiológico-clínico y de hábitos de vida de los adultos VIH-positivos. **Métodos:** estudio descriptivo, transversal y cuantitativo con una muestra de 331 personas VIH-positivas con programación ambulatoria entre febrero y agosto de 2014 de un hospital de referencia en Natal/RN. La recolección de datos se realizó a través de entrevistas semi-estructuradas. **Resultados:** los resultados mostraron un predominio de hombres (52%), jóvenes (42%), procedentes de la capital (58%), mulatos (53%), solteros (56%), heterossexuales (79%), pobres (68%). La mayoría había realizado el primer examen contra el VIH hacía menos de cinco años (60%), tenían señales y síntomas del SIDA antes del examen (90%), fueron internados (90%), habían iniciado el TAR hacía menos de cinco años (60%), juzgan tener un buen conocimiento acerca de la enfermedad (75%) y creen que su salud ha mejorado (92%). No consumen alcohol (71%), no fuman (88%). no usan drogas ilícitas (92%) y nunca usaron preservativos antes del diagnóstico (62%). **Conclusión:** el perfil identificado sigue las tendencias nacionales.

**Descriptorios:** perfil de salud; síndrome de inmunodeficiencia adquirida; VIH; enfermería.

## INTRODUCTION

AIDS is considered a serious public health problem, because since the 1980s it's affecting a large number of people around the world. It is estimated that by 2012, worldwide, there were 35.3 million people living with HIV, 1.6 million AIDS-related deaths and a rate of 2.3 million of new infections<sup>1</sup>.

In Brazil, when the epidemic of HIV/AIDS emerged it was restricted to metropolitan areas in the southeast and south of the country, and its most prevalent transmission was among men who have sex with men, through blood transfusion and intravenous drug use<sup>2</sup>.

Currently, the profile of HIV/AIDS has changed, since studies have shown an increase in the number of cases

among women<sup>3</sup>, heterosexuals<sup>4</sup>, people between 15 and 24 years old, adults over 50 years old, individuals with low level of education, i.e., pauperization, with the education<sup>5</sup> as a socioeconomic indicator, and an increased number of cases in the less urbanized regions<sup>6</sup>.

Today, Antiretroviral Treatment (HAART) is a reality and by 2013, in countries of medium and low income, 11.7 million people received it, and according to current trends, the number will increase to 15 million in 2015<sup>7</sup>. From approximately 718,000 Brazilians living with HIV/AIDS by 2012, 313,000 (44%) were on HAART, in 2002 less than half of this number - 125,000 - was in treatment<sup>5</sup>.

Increasing adherence to HAART has brought positive results in combating the disease and improving the quality of life<sup>3</sup> and survival of the HIV-positive<sup>8</sup> individual, and may also be associated with reduced mortality rates related to AIDS. In 2009, 2 million people died in the world of AIDS-related causes; in 2013, that number dropped to 1.5 million<sup>7</sup>.

Consistent with world figures, Brazil has reduced the AIDS mortality coefficient in the last ten years; in 2003 the ratio was something between 6 and 7 per 100,000 inhabitants; and in 2012, this rate dropped to 5.5 per one thousand inhabitants<sup>5</sup>.

There is no doubt that the treatment of AIDS has brought a new perspective of life for people with HIV. However, many barriers still need to be surpassed for the expected adherence to treatment, for instance, changes in daily routine, the financial difficulties and adaptation in the labor market, the complexity of treatment, side effects and the amount of ingested pills<sup>9</sup>.

The first step to overcoming these obstacles is knowing the context of the targeted population. In this perspective, this study aims to characterize the epidemiological, clinical profile and habits of people living with AIDS.

Tracing the profile of the HIV-positive population that uses health services is important because it enables the visualization of the real needs of this group, enabling more effective intervention strategies and an integral and effective health care.

## METHODS

This study is descriptive, cross-sectional and quantitative, held at the Hospital Giselda Trigueiro (HGT), where is located the department of infectious diseases - and disciplines of various health courses - from the Federal University of Rio Grande do Norte (UFRN). It is a public institution of reference for the state of Rio Grande do Norte in infectious diseases, toxicological information and special immunobiology - and an important field of research activities and scientific development in Rio Grande do Norte.

The study population consisted of HIV-positive users registered at the clinic of HGT, aged over 19 years old, oriented in time and space, with conditions to answer a semi-structured interview. The sample was composed of

those who agreed to participate in the research through a written consent, totaling 331 people. Data collection started after approval of the research by the Research Ethics Committee of UFRN on 06/19/2013, under the protocol number 16578613.0.0000.5537.

Data were collected through individual interviews with each of the users who had an outpatient medical appointment scheduled in HGT between February and August 2014. During the interview a semi-structured questionnaire was used. Such questionnaire was developed for this study to characterize the population, with socio-demographic and clinical characteristics, and habits as: origin, education, skin color, marital status, sexual orientation, income, religion, occupation; HIV tests realization, co-infections, CD4 type cell count and viral load; aspects related to treatment such as beginning, changes, abandonment, difficulties, consultation frequency and withdrawal of drugs; doubts, how one judges his knowledge about the disease and health status, use of condoms, use of tobacco, alcohol and other illicit drugs.

For the analysis of obtained data from the script for socio-demographic, clinical characteristics and living habits of the population, a spreadsheet was prepared in Excel for Windows 2010 validated, checked and transported to the Statistical Package for Social Sciences (SPSS, 2012) version 20.0.

The analysis was based on descriptive statistics of the data by believing it is the best way to analyze and interpret the results of the variables and coping ways of people on AIDS treatment.

## RESULTS

Once performed the implementation of the script with HIV-positive users, a sample of 331 people with AIDS in follow-up treatment in HGT was obtained. 52% of such sample (172) were male, and 48% (159) were female, and the majority (42%) was found in the age group between 20 and 30 years old, ranging between 20 and 63 years old.

In general, the social profile with the origin, education, skin color, marital status, sexual orientation, income, religion and occupation variables, are presented in Table 01.

**Table 1:** socio-demographic profile of HIV-positive people attended at HGT between February and August 2014 (N=331). Natal/RN, 2014.

Socio-demographic profile	N	%
<b>Origin</b>		
Capital	192	58
Interior	139	42
<b>Schooling</b>		
Never attended school environment	03	01
Incomplete primary education	162	49
Complete primary education	30	09

Socio-demographic profile	N	%
Incomplete high school	20	06
Complete high school	83	25
Incomplete higher education	10	03
Complete higher education	23	07
<b>Color</b>		
Brown	175	53
White	106	32
Black	50	15
<b>Marital status</b>		
Singles without companions	186	56
Singles with companions	66	20
Married	66	20
Widowers	13	04
<b>Sexual orientation</b>		
Heterosexuals	261	79
Homosexuals	70	21
<b>Income</b>		
Without wage income	50	15
Income of one minimum wage*	225	68
Above one minimum wage*	56	17
<b>Religion</b>		
Catholic	212	64
Evangelical	99	30
Others	20	06
<b>Occupation</b>		
Private company employee	166	50
Public company employee	33	10
Liberal or self-employed	66	20
Without occupation	50	15
Retired	16	05

Source: research data.

\* The minimum wage in the survey period (2014) was R\$ 724,00.

Table 02 shows the clinical follow-up data related to the infection and disease history among users in treatment in HGT, between February and August 2014, and Table 03 shows living habits of this population.

**Table 02:** history of clinical follow-up of HIV positive people attended at HGT between February and August 2014 (N=331). Natal/RN, 2014.

Clinical aspects	N	%
<b>Realization of the 1st HIV testing</b>		
Less than 5 years	199	60
More than 5 years	132	40
<b>Reasons for conducting HIV test</b>		
Medical Indication	33	10
Presentation of AID signs and symptoms	298	90
<b>Presence of co-infection at diagnosis</b>		

Clinical aspects	N	%
Yes	298	90
No	33	10
<b>Hospitalization at diagnosis</b>		
Yes	298	90
No	33	10
<b>Co-infections already presented</b>		
Tuberculosis	166	50
Hepatitis B	16	05
Hepatitis C	10	03
Toxoplasmosis	89	27
Cytomegalovirus	50	15
<b>CD4 at diagnosis</b>		
Under 200	282	85
Between 200 and 500	33	10
Over 500	16	05
<b>CD4 at collection</b>		
Under 200	16	05
Between 200 and 500	282	85
Over 500	33	10
<b>Viral load at diagnosis</b>		
Under 10000	66	20
Over 10000	265	80
<b>Viral load at collection</b>		
Detectable	10	03
Not detectable	321	97
<b>Treatment beginning with antiretrovirals</b>		
Less than 5 years	199	60
More than 5 years	132	40
<b>Presented adverse reactions to start treatment</b>		
Yes	265	80
No	66	20
<b>Change the initial treatment scheme</b>		
Yes	50	15
No	281	85
<b>Treatment abandonment</b>		
Yes	66	20
No	265	80
<b>Reasons for abandoning treatment</b>		
Adverse reactions	248	75
Difficulty to access the service	50	15
Depression	33	10
<b>Difficulties caused by treatment</b>		
Pills quantity	159	48
Consultations schedule	73	22
Distance to health service	66	20
Difficulty making appointments	33	10
Frequency of attendance at consultation		

Clinical aspects	N	%
Once a month	53	16
Every three months	245	74
Every six months	33	10
<b>Frequency of drug withdrawal (self-reported)</b>		
Less than 29 days delay	232	70
Between 29 and 74 days delay	83	25
More than 74 days delay	16	05
<b>Frequency of drug withdrawal (pharmacy)</b>		
Less than 29 days delay	99	30
Between 29 and 74 days delay	166	50
More than 74 days delay	66	20
<b>Doubts about treatment</b>		
Yes	149	45
No	182	55
<b>Knowledge about the disease</b>		
Great	16	05
Good	148	75
Bad	66	20
<b>Self-understanding of health status</b>		
Improvement	305	92
Worsening	26	08

Source: research data.

**Table 3:** habits of people living with HIV attended at the HGT between February and August 2014 (N=331). Natal/RN, 2014.

Life habits	N	%
<b>Condom use in all sexual relations (before diagnosis)</b>		
Never	205	62
Sometimes	126	38
<b>Condom use in all sexual relations (currently)</b>		
Yes	192	58
No	139	42
<b>Smoker</b>		
Yes	40	12
No	291	88
<b>Quantity of cigarette use</b>		
One per day	26	08
More than one per day	305	92
<b>Alcohol use</b>		
Yes	96	29
No	235	71
<b>Frequency of alcohol use</b>		
Weekend	315	95
More than once a week	16	05
<b>Use of illicit drugs</b>		
Yes	26	08

Life habits	N	%
No	305	92
Frequency of illicit drugs use		
Once a week	315	95
More than once a week	16	05

Source: Research data.

## DISCUSSION

### Socio-demographic aspects

The higher number of men identified in the sample is used by other Brazilian studies<sup>9,10</sup> and also in some performed outside the country<sup>11-2-3-4</sup>, showing that men remain the most affected by HIV. However, it is important to consider the number of women identified in the sample, 48%, very close to the number of males, suggesting the national trend growth in the number of cases of the disease among women. Some Brazilian studies already show more women than men in their samples<sup>15-6-7</sup>, giving the idea of the feminization of the disease.

The age group identified in the sample was 20-63 years old, then the average age of the population in question is 41.5 years, similar to what was observed in studies performed in Minas Gerais<sup>17</sup> and Santa Catarina<sup>10</sup>, for example, following the world trend observed in international studies<sup>11-2-3-4</sup>.

It is worth noting that although the average age assume most individuals with an average age between 30 and 50 years old, the majority of this research was composed by young people with ages ranging from 20 to 30 years old. However, older people were also present - over 60 years - which may be related to the national trend of increase in detection rates between young people and adults over 50 years<sup>5</sup>.

As for the variables of the social profile, origin, education, skin color, sexual orientation, income and occupation, it was observed that this study also reflects national trends.

Most come from urbanized areas, as was also observed in a study conducted in Salvador<sup>18</sup>. However, one should take into account the significant amount of HIV-positive people from cities in the state, 42%, suggesting a disease tendency towards the countryside of the country, which arises in studies conducted in Montes Claros/MG<sup>15,17</sup>, Diamantina/MG<sup>16</sup>, Londrina/PR<sup>9</sup> and Tubarão/SC<sup>10</sup>.

The low identified index levels of education and income are common to other Brazilian studies<sup>6,9,19,15</sup>, which was also identified by a US study<sup>14</sup>. These results are worrying because they can be considered as factors that hinder adherence to AIDS treatment, because education is important for the proper conduct of the use of drugs, respecting the quantities and the prescribed times.

Other trends noted in this survey results also observed in other studies were: the brownest skin color (53%)<sup>15-16</sup>, prevalence of heterosexual individuals<sup>9,15,16,18</sup> and lower rates of unemployed (15%) compared to employed (60%)<sup>6,9,15,18</sup>.

In the opposed direction to the frequency people in stable relationships observed in studies in Paraná<sup>9</sup>, Ceará<sup>19</sup> and Minas Gerais<sup>6,15-6</sup>, the survey conducted in Rio Grande do Norte observed a large number of single people (56%) as it was identified in Bahia<sup>18</sup>.

Finally, religion can be used by people living with HIV as a way to search for comfort and relief from the tensions that arise after the disease diagnosis<sup>19</sup>, maybe almost all of the patients reported some religious belief for this reason - being the vast majority Catholic (64%) - as was also observed by Rodrigues Neto et al<sup>15</sup> in a study in Minas Gerais and by Paschoal et al<sup>20</sup> in Rio de Janeiro.

### Clinical aspects

More than half of participants (60%) were aware of the positive diagnosis for HIV in the past five years, and almost all were tested only after the emergence of the AIDS signs and symptoms (90%), which suggests that the fear of positive diagnosis makes people not to seek this type of testes. Therefore, people only seek this examination with the clinical complications.

In a study conducted in a Testing and Counseling Center (CTA) for the prevention of Sexually Transmitted Diseases (STDs) and AIDS, it was observed a fear of the possibility of a positive result for HIV and also a fear of being discriminated for doing this type of test - so when one takes such a test, it's common if that one chooses not to return to get the results<sup>21</sup>.

The identification of co-infection and hospitalization at diagnosis was observed in 90% of the cases. Among them, tuberculosis presented the highest frequency, which was also observed in a study in PR<sup>9</sup>, in the Brazilian border strip<sup>23</sup>, and in Havana/Cuba<sup>23</sup>. Although other studies<sup>18,10,24</sup> show other opportunistic infections being more frequent, tuberculosis is still configured as the leading cause of death associated to AIDS worldwide<sup>1</sup>, and therefore, should receive special attention from the government agency for its control.

The CD4 cell type count and the viral load count performed at diagnosis observed that, respectively, the CD4 count was under 200 cells/mm<sup>3</sup> in 85% of cases and the viral load was over 10,000 copies/mL in 80%. At the time of data collection of the research, these numbers changed, the percentage drop to 5% of cases with CD4 under 200 cells/mm<sup>3</sup> and viral load became undetectable in 97% of cases. This change can be explained by the fact that survey participants were on HAART, and the treatment increases the amount of cells affected by HIV and reduce viral load within the first three months<sup>25</sup>. Similar results were also observed in a study conducted in Rio de Janeiro<sup>26</sup>.

The improvement of clinical and immunological conditions and reduced viral load caused by HAART is already expected in the first three months of treatment. However, in the same period problems such as co-infections, Immune Reconstitution Inflammatory Syndrome (IRIS) and adverse reactions to medications may arise, complicating

adherence to the treatment regimen<sup>25</sup>.

Regarding adverse reactions, in this study, it was observed that 80% of participants had some adverse reactions to start treatment and 20% of them abandoned such treatment. The side effects caused the discontinuation of treatment took place in 75% of the cases. Other studies also show adverse effects as a cause that hinders adherence to HAART<sup>10,20,27</sup>.

In addition to the adverse reactions, other difficulties are imposed on HIV-positive people during treatment, like the large amount of pills ingested per day - reported by 48% of participants - also observed in a study in Specialized Outpatient Service (SAE) in AIDS, in a city of the state of Paraná, between 2006 and 2007<sup>28</sup>.

As the frequency of medical consultations, the Ministry of Health recommends that people at the beginning of HAART or in the scheme exchange, must return to the doctor in a period of seven to fifteen days since the last appointment. In the next phase, monthly returns are indicated to a complete adherence to the treatment, aiming at the achievement of a stable condition - when the range of consultations passes to six months<sup>25</sup>.

On the results, in what regards the frequency of attendance at medical consultations, similar to the results observed in a study in MG<sup>29</sup>, less than 20% of the participants return to the doctor every six months, although 40% have initiated the HAART for more than five years. This suggests problems of adaptation to the treatment or instability in the clinical frame because it is expected that the CD4 cell count and immune recovery happen in the first year of HAART and stability in the second year<sup>25</sup>.

This hypothesis is strengthened by the fact that most of the CD4 counts (85%) were between 200 and 500 cells/mm<sup>3</sup> and only 10% exceeded 500 cells/mm<sup>3</sup>. However, only 15% had modified the initial regimen of treatment and, therefore, it is assumed that the majority is still in the process of adaptation to the treatment, because 60% of them started treatment for less than five years.

In addition to evaluating the adaptation to the treatment through CD4 cell count and viral load, it is also important to consider the adhesion, which involves the correct intake of prescribed drugs in one's doses and frequencies<sup>25</sup>. If the use of drugs is not respecting these medical determinations, the expected adherence will not happen. Therefore, the adhesion must also be evaluated.

One of the adhesion-related factors is the withdrawal of medications at the pharmacy at the expected time, being important the absence of delays by the patient that may interrupt the treatment. However, it is observed that delays do happen in the removal.

In this study, 70% of the participants affirmed late withdrawal of the drug - up to twenty-nine days. When this data was checked in the pharmacy, the percentage decreased to 30% and the delay in medication withdrawal rose to between twenty-nine and seventy-four days (50%), therefore, more irregular than self-reported.

The frequency of withdrawals of drugs used against AIDS was also investigated in a study in Belo Horizonte between 2001 and 2002 that also noted a high rate (57.9%) of irregular or late withdrawals<sup>29</sup>.

The delay regarding the withdrawal of drugs at the pharmacy endangers the continuity of treatment and therefore, its effectiveness. Thus, health care for people who are on HAART must not be restricted to specialized medical actions, but the continuity of care is important at other levels of care, especially primary care. It is suggested that the family health team may help AIDS treatment monitoring individuals and demanding from them commitment attitudes to therapy - and assist them in planning treatment.

Another information relevant to treatment adherence involves the presence of doubts about the treatment, the knowledge that HIV-positive have about the disease and the self-understanding of health status, as both can affect the continuity of treatment.

Although the majority of participants (75%) consider that they have a good knowledge about the disease, as was also observed in other studies<sup>16-31</sup>, 92% visualize improvement in their health after treatment. It was also observed in other research<sup>16-32</sup> that 45% still have some doubts. Therefore, it is suggested that the dialogue should be unceasing to resolve questions and; moreover, it is important that people with HIV have access to other social spaces so they can also talk about their illness because there is not always enough time in medical consultations<sup>32</sup>.

## Life habits

The adherence to HAART also involves the acquisition of healthy living habits<sup>25</sup>. Therefore, practices such as the use of alcohol, tobacco and other illicit drugs should be avoided as they increase the risk for various health problems. The alcohol increases the risk of hepatotoxicity associated with HAART; tobacco expands the risk of cardiovascular accident, stroke, pneumonia, lung cancer, depression; and illicit drugs may interact with HAART, increasing the risk of toxicity and accelerating the evolution of the disease.

Among the research participants, it seems that the guidelines for a healthier life are followed by the majority, whereas 71% affirmed they did not consume alcohol, 88% do not smoke, and 92% do not use illegal drugs.

Similar results, even though regarding a lesser extent, were observed by Castro et al<sup>18</sup> in a study conducted in Salvador, between 2011 and 2012, for alcohol (52%) and cigarettes (54%). Otherwise, Murure et al<sup>30</sup>, in a study conducted in Belo Horizonte between 2007 and 2009, perceived a higher frequency in the use of alcohol (62.6%), but in relation to illicit drugs, it was also noted that the majority (66.9 %) reported not using them during at least the last six months.

Another important factor related to healthy lifestyle involves sexual practice. Condom use is the best way to prevent the spread of the virus, as well as to prevent the

exchange of viruses between people living with HIV.

When asked about the use of condoms during sexual intercourse, 62% of respondents said they had never used a condom before the diagnosis. This is similar to what was observed in the study in Jequitinhonha Valley, between 1995 and 2008, in which 66.2% also did not use. This shows that people still think, wrongly, that this kind of disease cannot happen to anyone. After diagnosis, 58% said they are conducting prevention while in the study performed by Campos and Ribeiro, 75% did not mention the use of condoms<sup>16</sup>.

The non-use of prevention methods during sexual intercourse increases the risk of HIV transmission, especially when the individual is aware of their HIV status. The awareness of the use of condoms by the population, therefore, is important regardless of the positive or negative serology for the virus, once the continued use reduces the risk for HIV and STDs also.

## CONCLUSION

Men remain the most affected by HIV/AIDS, although the significant number of women infected demonstrates the trend of feminization of the disease. Cases were also numerous from young people from 20 to 30 years old, but also were heavily present among elderly above 60 years old. As for the social profile, people from less urbanized areas - although not identified as the majority - were still significant, suggesting internalization of the disease in RN state. A predominance of low levels of education and income, as well as the heterosexuality, were important factors to the patients' profile - reflected as pauperization and "heterosexualization" of the disease, respectively. Also, there was a higher frequency of brown, single and Catholic people.

Regarding clinical aspects, the majority of the people enrolled in this study knew about their diagnosis for the last five years, after the emergence of the first signs and symptoms of AIDS; tuberculosis was the most common co-infection; there was an increase in CD4 and viral load reduction; the side effects at the start of treatment were presented by almost all respondents and were referred to as the main cause of HAART abandonment. Another difficulty imposed by such treatment was a the large number of pills ingested per day. Although it is suggested that respondents are in the process of adaptation to HAART because few keep a range of six months to medical appointments, almost all have a CD4 type cell count under 500 cells/mm<sup>3</sup>, and a little more than half of them had started treatment for less than five years. Moreover, the delay in the withdrawal of medications was frequent, which may compromise the effectiveness of treatment. Although most participants consider to have a good knowledge about the disease and visualize improvement in their health after treatment, some still have some doubts about it.

Regarding life habits it was observed that among the

respondents the practice of healthy habits is common, after all, most of them affirmed not to consume alcoholic beverages, cigarettes, nor illegal drugs. As for the sexual practices, it remains the risk of transmissibility, although smaller, because more than half said they never used condoms before the positive diagnosis for HIV and currently only a little more than half joined the condoms.

Finally, it is clear that the socio-demographic, clinical and life habits profile of the population studied depends on the context and national trends. Thus, this finding presents itself as a subsidy for local health teams and managers to perform more effective intervention actions with the HIV-positive population of Rio Grande do Norte.

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