

Review study on AIDS and its relationship with socioeconomic conditions in one of the poorest states in Brazil

Abstract

In this work, an analysis was made of the incidence of AIDS and its relationship with the socioeconomic conditions of seropositive patients in the State of Maranhão, aiming to outline strategies for the treatment and prevention of the pathology, also contributing to the understanding of its epidemiology. The study is an integrative literature review, carried out from the search for scientific publications indexed in the database: SciELO, MEDLINE/PubMed, Lilacs and Government Portals. The following descriptors were used: HIV, Acquired Immunodeficiency Syndrome and Socioeconomic Factors. At the end of the searches, 20 publications met the eligibility criteria and were selected to compose the study. As a result of the information taken from the selected studies, it was noticed that HIV transmission in the State of Maranhão is also related to the socioeconomic, educational, cultural and environmental conditions of individuals, exerting a direct influence on the health and well-being of these people. The study shows that there is a link between the population living with AIDS and their living conditions. From this perspective, it is possible to identify the places in the region that have a higher prevalence of individuals with the aforementioned characteristics.

Keywords: AIDS, HIV, socioeconomic conditions, epidemiology

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Abbreviations: AIDS, acquired immunodeficiency syndrome; HIV, human immunodeficiency virus; STIs, sexually transmitted infections; HDI, human development index; MEDLINE, Medical Literature Analysis and Retrieval System Online; RSP, revista de saúde pública; LILACS, latin American and caribbean health sciences; SciELO, scientific electronic library online; UFMA, federal university of maranhão; DeCS, health sciences descriptors; MeSH, medical subject headings; WLHA, women living with HIV/AIDS; UBS, basic health units; ART, antiretroviral therapy

Introduction

Acquired Immunodeficiency Syndrome (AIDS) is a pathology caused by the Human Immunodeficiency Virus (HIV), which attacks the immune system of the infected person¹ HIV can be transmitted through sexual intercourse, unprotected oral, vaginal and anal contact, use of syringes by more than one individual, and transfusion of contaminated blood. In addition, transmission can occur through the infected mother to her child during pregnancy, childbirth, breastfeeding and through the use of instruments that pierce or cut when they are not properly sterilized.² From this perspective, the disease also represents a challenge for science, which, from the beginning, seeks to unravel the mechanisms of action of the virus and its complications in the human body. Thus, even after 40 years of the discovery of the pathology, a definitive cure has not yet been found, so that there are continuous studies for the discovery of drugs and possible vaccines against the causative agent of the disease.³

AIDS affects people all over the world and has a worrying number of cases. It is estimated that, on average per day, more than 1 million new cases of a Sexually Transmitted Infections (STIs) appear in the world. About 357 million new infections arise each year, including chlamydia, gonorrhea, syphilis and trichomoniasis, which considerably increases the risk of acquiring or transmitting Human Immunodeficiency Virus (HIV).⁴ In this sense, it is also worth knowing the AIDS situation in the State of Maranhão which,

despite being considered a state with a large territorial extension, has a low HDI (Human Development Index), with great social, economic and geographic inequalities, contributing, thus, to an enormous heterogeneity among AIDS cases in this State.⁵ Therefore, it is also valid to know the AIDS situation in the State of Maranhão which, despite being considered a state with a large territorial extension, has a low HDI (Human Development Index), with great social, economic and geographical inequalities, thus contributing for a huge heterogeneity among AIDS cases in the state.⁵ Although AIDS cases in Brazil have been discreet in recent years, in Maranhão the rates continue to rise, with a detection rate that increased from 12.6 in 2008 to 19.7/100 thousand inhabitants in 2018, taking into account the 11th position in Brazil and the 2nd position in the Northeast Region. Thus, among the cities in Brazil with a population of over 100,000 inhabitants with the highest number of HIV cases, three of these cities are part of the State of Maranhão, which are the municipalities of São José de Ribamar (13th), Codó (15th),⁹ and São Luís (20th).⁶ In a global view, HIV transmission is also related to people's living conditions and most cases of infection occur in the world's poorest nations.⁷ In Brazil, most seropositive patients belong to the lower or middle classes, have low education and are unemployed. In addition, the different magnitudes of the AIDS epidemic in Brazilian regions are the result of inequalities in the provision of health services.⁷

Furthermore, a study carried out with 227 people with AIDS in the state of Rio Grande do Norte published by Revista de Saúde Pública (RSP), showed that 63% of these infected subjects have low purchasing power.⁸ In this way, the relationship between the AIDS epidemic and the socioeconomic conditions of individuals is further strengthened. Therefore, the objective of this study is to carry out an integrative review of the literature on the incidence of AIDS and its relationship with the socioeconomic conditions of seropositive patients from Maranhão, given that Maranhão is a state that has significant numbers of AIDS cases and low HDI. Thus, it is important to present a diversity of information about individuals affected by HIV

in the region, since there is a need for updated knowledge that can be an aid in the delineation of strategies for the treatment and prevention of the pathology, also contributing to demarcate its epidemiology.

Materials and methods

Classification: The study is an integrative literature review carried out to know the scientific productions that address the relationship between the incidence of HIV and the socioeconomic conditions of individuals affected by this pathology.

Development: The work was developed from the following steps: 1) definition of the theme and the guiding question; 2) choice of databases and definition of descriptors; 3) establishment of inclusion and exclusion criteria; 4) search for publications in selected databases; 5) analysis of included studies; 6) discussion of results.⁹

Guiding Question: The guiding question of the study was: “What is the relationship between people living with HIV in Maranhão and their socioeconomic conditions?”.

Searches and search strategies: From November 2021 to May 2022, articles were selected from the Medical Literature Analysis and Retrieval System Online (MEDLINE) databases via PubMed, Latin American and Caribbean Health Sciences (LILACS) databases and Scientific Electronic Library Online (SciELO) for the construction of the review and selection of articles. For the complementary search, government portals were used, such as the Ministry of Health of Brazil and the Federal University of Maranhão (UFMA). Thus, descriptors in English and Portuguese were used, chosen from the Health Sciences Descriptors (DeCS) of the Virtual Health Library and the Medical Subject Headings (MeSH) of the National Library of Medicine: HIV,

Acquired Immunodeficiency Syndrome, Socioeconomic Factors, Acquired Immunodeficiency Syndrome and Socioeconomic Factors associated with Boolean operators. Thus, the search keys for the bases were configured as: “HIV OR Acquired Immunodeficiency Syndrome AND Socioeconomic Factors” and “HIV OR Acquired Immunodeficiency Syndrome AND Socioeconomic Factors”.

Inclusion and exclusion criteria: Full articles available in English, Spanish and Portuguese, from 2017 to 2022, covering the topic of socioeconomic conditions of individuals affected with HIV/AIDS, were considered for the inclusion criteria. In addition, occasionally repeated articles were considered only once and works such as letters to the editor, technical standards, expert opinions and books and works published before 2017 were excluded.

Results and discussion

Although the search keys found a large number of works, few presented information that was in accordance with the guiding question of this study. However, among the selected works, important information was found that shows the link between the influence of socioeconomic conditions on the lives of people living with HIV. In all, 349 publications met the search criteria, 42 from SciELO, 88 from LILACS, 215 from Medline/Pubmed and 8 from government portals, which met the inclusion criteria and were included in the final selection. In terms of publication years, it is worth mentioning the years 2017 (4 articles), 2018 (6 articles), 2019 (2 articles), 2020 (4 articles), 2021 (2 articles) and 2022 (2 articles). The scheme of the steps of search and selection of publications in the databases was detailed in Figure 1 and the description of the information of the selected works are listed in Table 1.

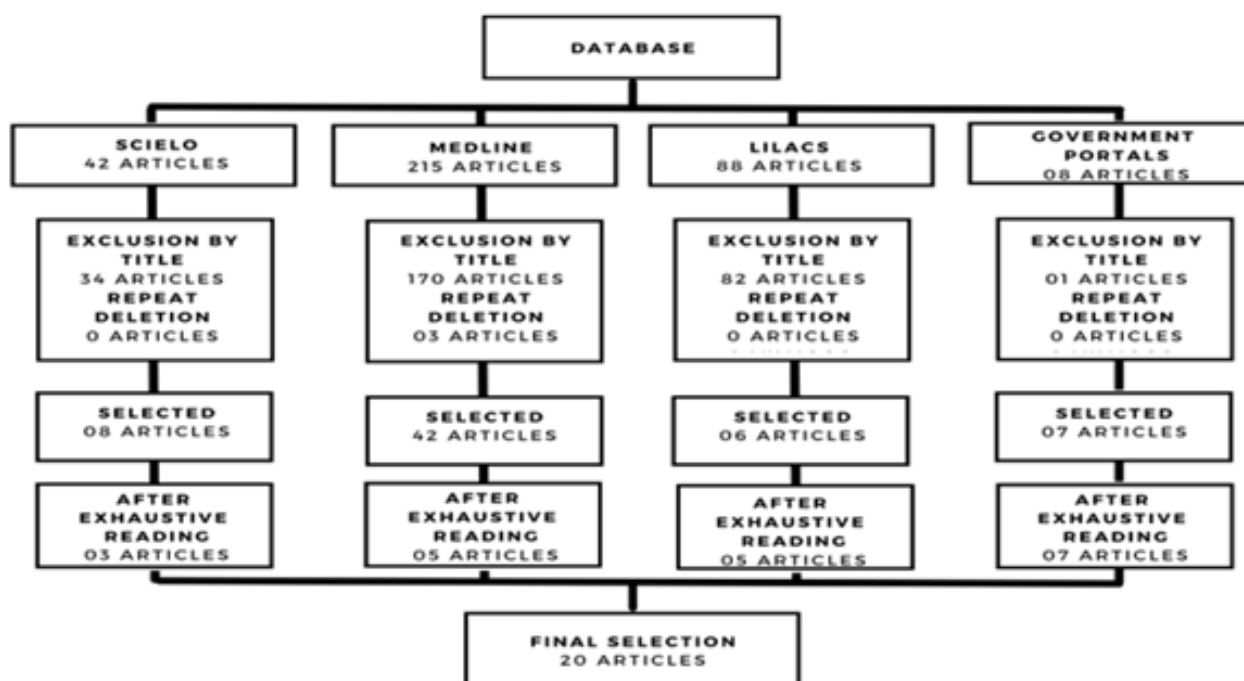


Figure 1 Steps of searching and selecting publications in the databases.

Source: Prepared by the authors.

Table 1 Information on selected works

Name of article/Type of study	Main authors	Database / Year of publication	Objectives	Knowledge synthesis
Hierarchical analysis of the determinants of vertical transmission of HIV: a case-control study / Experimental study	Siqueira et al. ¹⁶	LILACS / 2020	To analyze the association of socioeconomic, obstetric, pediatric factors and prophylactic measures to vertical transmission of HIV in children followed up at a reference service in Recife, between 2010 and 2015.	It demonstrates that there is a vertical transmission of HIV, mainly in mothers with low education, brown and black, in addition to the vast majority not having income from work.
HIV/AIDS prevention, production of differences and processes of social change / Dossier	Facchini et al. ¹⁷	LILACS / 2018	To analyze the concentration of AIDS in specific groups, relating it to social conditions and addressing processes that alleviate this scenario.	It presents the influence of social aspects such as stigmatization, discrimination, disrespect/non-recognition and social inequalities in the incidence of AIDS.
Quality of life of people living with HIV/AIDS: temporal, sociodemographic and perceptible health relationship / Experimental study	Hipolito et al. ¹⁶	LILACS / 2017	To analyze the quality of life of people living with HIV/AIDS and its relationship with sociodemographic variables, satisfaction with health, as well as time of diagnosis.	It is exposed that variables such as time of diagnosis, family income, personal income, employment status and good mental health are extremely important for the quality of life of people with HIV/AIDS.
Quality of life, socioeconomic and clinical factors and physical exercise in people living with HIV/AIDS / Exploratory descriptive study	Medeiros et al. ⁸	LILACS / 2017	To analyze whether socioeconomic and clinical aspects and healthy lifestyle habits are associated with quality of life in people living with AIDS/HIV.	It is pointed out that the quality of life of people living with AIDS/HIV presents losses, mainly in the financial issue, followed by general body function and satisfaction with life. Thus, economic and clinical aspects and healthy lifestyle habits contribute greatly to this reality.
Social Determination of HIV/AIDS: an integrative review. / Integrative review.	Maranhão et al. ²¹	LILACS / 2018	Investigate the scientific production on the social determination of HIV/AIDS published from 2009 to 2015.	This study analyzed some social determinants that influence the dynamics of HIV/AIDS. In this sense, it was emphasized that age, race, behavioral factors, family environment, socioeconomic level and low education contribute significantly to the spread of HIV/AIDS.
Adolescents in situations of poverty: resilience and vulnerabilities transmitted to sexually infections. / Cross-sectional study	Costa et al. ⁴	Scielo / 2020	To analyze the relationship between vulnerabilities to Sexually Transmitted Infections (STIs) of adolescents in poverty and their level of resilience	It establishes a relationship between HIV cases and social vulnerability indices, such as – for example – housing situations and level of education.
Spatial analysis of AIDS in the state of Maranhão: an ecological study 2011-2018 / Ecological study	Sousa et al. ¹¹	Scielo / 2021	To analyze the spatio-temporal distribution of AIDS cases in Maranhão.	It presents the distribution of old and new HIV cases in Maranhão, relating them geographically, that is, identifying risk areas.
Vulnerability factors associated with HIV/AIDS hospitalizations: a case-control study.	Lopes et al. ¹³	Medline / 2020	Identify the association between hospitalizations for HIV/AIDS and the factors that integrate individual, social and programmatic vulnerabilities.	It points out that vulnerability factors such as unemployment, lack of housing and the absence of antiretroviral treatment help to worsen the HIV condition, which consequently results in hospitalization.

Table I Continued...

Name of article/Type of study	Main authors	Database / Year of publication	Objectives	Knowledge synthesis
People living with AIDS: Association between nursing diagnoses and sociodemographic/clinical characteristics. / Analytical cross-sectional study	Silva et al. ²⁰	Medline / 2018	To analyze the association between nursing diagnoses and sociodemographic and clinical characteristics in people living with AIDS.	Significant associations are observed between the nursing diagnoses of people living with AIDS with profiles of similar sociodemographic and clinical characteristics, such as: marital status, place of residence, schooling, family income, modes of transmission of the acquired immunodeficiency virus, current opportunistic infection, treatment abandonment, difficulty in accessing health services and use of alcohol and illicit drugs.
Differences and similarities in women living and not living with HIV: contributions by the GENIE study to sexual and reproductive healthcare. / Quantitative study	Pinho et al. ¹⁵	Medline / 2017	To analyze practices and decisions in the field of sexuality, reproduction and life contexts, identifying situations of vulnerability, in a representative sample of the female population with HIV in São Paulo.	It demonstrates that women living with HIV/AIDS are marked by situations of greater vulnerability that, potentially, increase their risk for HIV infection and for events in the reproductive field.
Sociodemographic determinants of attrition in the HIV continuum of care in Brazil, in 2016 / Analytical study.	Pascom et al. ¹⁴	Medline / 2018	The aim of this study was to identify the sociodemographic factors associated with attrition in the 3 stages of HIV continuum care related to the 90-90-90 goals-access to diagnosis, initiation of treatment and virological suppression in Brazilian adults (15 years and older), in 2016.	According to the study, there is an association between seropositive individuals, who complete the 3 stages of HIV treatment, and sociodemographic factors. In this sense, seropositive individuals who had a late presentation to treatment, who had not undergone antiretroviral therapy in the last 100 days and who were not serologically suppressed, had less schooling, black or brown skin and also lived in precarious environments.
Epidemiological situation of acquired immunodeficiency syndrome (AIDS)-related mortality in a municipality in northeastern Brazil / Retrospective cross-sectional study	Silva et al. ¹⁸	Medline / 2018	The purpose of this study was to describe the epidemiological situation of AIDS-related mortality in a municipality in the northeast Brazil region.	According to the study, when analyzing the epidemiological situation of AIDS-related mortality in a municipality in the northeast region of Brazil, it was observed that the cases of deaths are concentrated in groups of men and young adults exposed to socioeconomic vulnerability factors.
Epidemiological Bulletin 2021	Brasil ¹⁰	Ministry of Health / 2021	Present information on HIV and AIDS cases in Brazil, regions, states and capitals, according to the information obtained from the information systems used for its preparation.	It aims to demonstrate the distribution of HIV/AIDS cases in the country, in the year 2021. So that - from these - studies and actions are carried out, such as public policies, in order to alleviate the situation in the streets.
Risk factors for HIV/AIDS among users of alcohol and other drugs attended at a testing and counseling center in southern Maranhão, Brazil. / Documentary, transversal and quantitative study.	Sousa ¹⁹	Federal University of Maranhão - UFMA / 2017	To analyze sociodemographic and behavioral risk factors for HIV among users of alcohol and other drugs treated at the Testing and Counseling Center (CTA) of the STI/AIDS Reference Center in Imperatriz-MA.	To identify the main sociodemographic and behavioral factors prevalent among patients with HIV/AIDS in the south of the State of Maranhão.

Table I Continued....

Name of article/Type of study	Main authors	Database / Year of publication	Objectives	Knowledge synthesis
Spatio-temporal analysis of HIV/AIDS cases in the State of Maranhão: an ecological study. / Ecological study	Cantanhede ⁵	Federal University of Maranhão - UFMA / 2019	To describe the social and clinical-laboratory characteristics of people living with HIV/AIDS in the cities of Maranhão.	It characterizes the population studied according to the identification of social factors, disease transmission and other personal variables. It identifies the main characteristics of the disease such as causes, symptoms, diagnosis, treatment and prevention. In addition, it highlights the existence of more affected groups that are associated with sexual orientation and conditions of socioeconomic vulnerability.
AIDS/HIV: what it is, causes, symptoms, diagnosis, treatment and prevention.	Brasil ¹⁰	Ministry of Health/ 2020	It aims to highlight information about AIDS, for a better understanding of it.	It points out information about the distribution of HIV/AIDS cases in Brazil, which aims to demonstrate where most of the cases are concentrated, so that it is possible to carry out actions that contribute to the reduction of the incidence of AIDS in these places and in Brazil as one all.
Health Surveillance Department. Department of STIs, HIV/AIDS and viral hepatitis. Bol Epidemiol HIV/ AIDS.	Brasil ¹⁰	Ministry of Health / 2019	Present information to guide the control of HIV/AIDS in the country, contributing to decision-making at the federal, state and municipal levels.	These stigmas have emerged since the beginning of the AIDS epidemic, contributing to the invisibility of HIV-positive people, as some of them move away from local treatment centers, for fear of revealing their identity and being recognized by their fellow citizens. Thus, these individuals have their health status indirectly harmed due to the stigmas related to HIV/ AIDS.
STIGMAS ABOUT HIV/AIDS: Invisibility and prejudice in two municipalities in Maranhão / Descriptive study	Silva ³	Federal University of Maranhão - UFMA / 2020	We seek the emergence of stigmas on HIV carriers and their implications in society and in the lives of these people.	It presents information about HIV, the virus responsible for the immunodeficiency disease, AIDS, which has no cure, but is treated with antiretroviral therapy (ART), responsible for prolonging the lives of people living with HIV and reducing the chances of transmission of illnesses.
Basics informations. 2022.	Unaid ²	UNAIDS / 2022	It aims to highlight information about HIV, such as: what is the virus responsible for AIDS, what is the treatment and the stages of the disease.	

In Brazil, the HIV infection scenario is worrying. In this context, from 2007 to June 2021, 381,793 cases of HIV were reported to Sinan (Information System on Notifiable Diseases), and in 2020, 32,701 new infections were recorded, totaling 1,045 in the period from 1980 to June 2021. 355 AIDS cases detected in the country.¹⁰ Thus, the situation in the State of Maranhão reflects the national infection scenario, so that the rates continue to increase, with a detection rate that increased from 16.4 in 2010 to 18.4/100 thousand inhabitants in 2019, occupying 2nd position in the Northeast Region.¹⁰ In addition, during the period from 2011 to 2018, 6,349 AIDS cases were reported in the state of Maranhão (with an annual average of 793 cases), which were heterogeneously distributed throughout the five mesoregions of the state.¹¹

From this perspective, when analyzing the reality of Maranhão, it is necessary to identify trends in the AIDS epidemic, to act in the fields of early diagnosis, disease prevention and monitoring of

seropositive individuals, given the expressive number of the detection rate that indicates a problem. Thus, HIV transmission is also related to people's living conditions. In Brazil, it was shown that most people living with AIDS are male, aged between 30 and 39 years old, do not have a partner, live in inland regions, have incomplete elementary education and low salary income. Regarding clinical aspects, most had opportunistic infection and reported having abandoned treatment, in addition to having been exposed to the virus through sexual intercourse.¹² Therefore, it is evident that health and well-being are also influenced by general socioeconomic, educational, cultural and environmental conditions, which have a significant impact on HIV/AIDS infection, since they determine how the individual acquires and lives with the disease. With a detailed profile on the characteristics of people living with HIV, it is possible to outline prevention and treatment strategies, enabling greater care for them. In this sense, some studies were carried out in order to funnel factors that contribute to

clinical worsening, resulting in the hospitalization of people affected by the disease. Such characteristics include: unemployed and retired individuals, homeless people, non-users of antiretroviral therapy (ART) and individuals who did not regularly attend return visits.¹³

With this, it was observed that the unemployed had 3.63 and retirees/housewives, 7.14 times, more likely to go through a process of worsening of the clinical picture when compared to self-employed or employed. Homeless people were 10 times, more likely to be hospitalized than people with regular housing. ART users were 9.68% less likely to be hospitalized when compared to people who did not undergo treatment continuously or who did not use ART. In relation to those who were unsatisfactory in return appointments, they were 7.62 times, more likely to be hospitalized than those who were rarely absent.¹³ Thus, it is still visible that there is a concentration of hospitalizations focused on the most vulnerable population subgroups, as a result of the non-retention of the individual in the services of health, which generates the aggravation of HIV that, consequently, results in hospitalization. In this way, since people in more vulnerable conditions are susceptible to the worsening of the clinical state caused by HIV/AIDS, the commitment of the teams is necessary in order to guarantee the integration between the various social and health services belonging to the care network with the with the objective of reducing the worsening of HIV/AIDS, ravaged by factors of social and individual vulnerabilities.¹³

Furthermore, social inequalities are vulnerabilities that enhance other vulnerabilities, especially in adolescence, in which living conditions, housing, schooling and family relationships influence the development of adverse situations, such as exposure to STIs. In this scenario, a study shows that 73.9% of adolescents were considered vulnerable to STIs, with 64.6% being male, aged between 15 and 16 years.⁴ The early initiation of sexual activities, the multiplicity of partners, the non-use of condoms, low education, low socioeconomic conditions and the search for pleasure and the discovery of new things, are situations that make adolescents more vulnerable to sexually transmitted diseases, including AIDS.⁴ Thus, continuous care for adolescents is essential, mainly because there is a greater response to treatment in young people aged 15 to 24 years old, when compared to those aged 25 years or older, since the diagnosis is at an early stage of the disease. As a very susceptible population, there is a need for actions that involve support and guidance, in addition to the development of prevention mechanisms, which must be carried out in all scenarios and contexts in which adolescents are inserted.¹⁴

Women also comprise a public that is in a vulnerable situation, most of whom are of reproductive age, in a range of 25 to 39 years of age, and that transmission occurs mostly in a heterosexual relationship, which corresponds to about 97.4% of transmission through sexual intercourse. Thus, despite the existence of new prevention technologies, such as prophylaxis, prevention, treatment and self-testing that contribute to the reduction and control of HIV transmission, little has been investigated about practices and decisions in the field of sexuality and reproduction of the female population of those living with HIV/AIDS.¹⁵

A study carried out among women without HIV and women living with HIV/AIDS (WLHA) revealed that those affected with the virus live in a situation of vulnerability that potentially increases the risk of infection by the virus and compromises events in the reproductive field. In this way, by observing the trajectories in the sexual and reproductive field of the WLHA, it was possible to draw a profile that reflects the greatest risks of infection, taking into account the situation

of vulnerability in which this studied group is exposed. Thus, these women reported a higher proportion of drug use, sex in exchange for money, having suffered physical and/or sexual violence in their lives and by an intimate partner, beginning their sexual life early, up to 15 years of age, having been diagnosed with HIV late, such as prenatal care, teenage pregnancy, unplanned pregnancy and even induced abortion, in an attempt to avoid vertical transmission.¹⁵ In this way, by observing the profiles of the WLHA, it was possible, together with their life trajectories, to analyze the factors that contributed to increase the vulnerability of the women in the study to the risk of HIV infection present in their sexual and reproductive lives. Thus, it is necessary to strengthen public health policies regarding the monitoring of women in all stages of their sexual life, including the prenatal period, avoiding contagion and, in the case of contaminated women, sexual and vertical transmission. In this context, verifying the high contagion of women in Brazil, it is clear that the vertical transmission of HIV/AIDS is a serious problem, which is related to the socioeconomic factors of pregnant and postpartum women. In 2018, vertical transmission was responsible for 86.2% of cases in children under 13 years of age in the country, through pregnancy, childbirth and breastfeeding, revealing that there is a lack of knowledge of protective measures on the part of mothers, during pregnancy or in the puerperium, according to Siqueira et al., 2021. In the same study on vertical transmission of HIV/AIDS,¹⁶ it is shown that transmission is higher in brown/black mothers, adolescents, with low education, who have no income from paid work. It is then revealed a relationship with the socioeconomic conditions that mothers live, whether affected by the lack of preventive education, as well as by the difficulty of accessing health services, since they live in precarious conditions.

In addition, it appears that approximately 60.5% of mothers only discover that they have the virus during or after childbirth, and that more than half of the children had their first medical consultation after 6 months or more after childbirth, in addition to 1/3 of the mothers did not have the minimum of consultations in the period, revealing that there was no necessary care to prevent the infection of the fetus/newborn, a fact that would be avoidable if a correct prenatal care was performed, with a rapid HIV test of wide range access in several Basic Health Units (UBS), clarifying that it is not only a maternal problem, but also a public health service problem. In addition, when comparing the situation of pregnant women with complete and incomplete prenatal care, it is verified that there is a 3.5-fold increase in vertical transmission in the latter case, making the diagnosis of HIV/AIDS difficult, reducing the ideal moments. to the realization of antiretroviral prophylaxis. In this circumstance, there must be a follow-up and maternal education of the puerperal women so as not to contaminate the newborn, in addition to the expansion of campaigns in the UBS to expand access to HIV tests both in prenatal care and in postpartum women.¹⁶

Furthermore, the epidemiological scenario shows that AIDS cases affect both men and women, however, the highest density of numbers is significantly concentrated in population groups with specific characteristics: men who have sex with men, sex workers, drug users, transvestites and transsexuals. Linked to this, the most affected groups suffer from the persistence of stigma and prejudice, which prevents them from having free access to services, supplies, or discussing issues involving their intimate lives with health professionals.^{3,17} According to a study carried out to identify the number of subgroups affected by HIV/AIDS, the result was an HIV prevalence of 19.8% among men who have sex with men aged 25 years and over and of 9.4% among those aged between 18 and 24 years. In relation to female sex workers,

the number of these diagnosed with HIV/AIDS is as high as 5.5%. In the case of men who have sex with men, a 32.9% increase in AIDS cases among homosexual and bisexual men has been recorded in the last decade. Furthermore, in the same study, more frequent reports of discrimination and physical violence suffered, specifically, by men who have sex with men were identified.¹⁷

Thus, it is observed that there is an epidemiological profile characterized by the increase in HIV/AIDS cases centered on specific groups, such as homosexual and bisexual men, who are often exposed to processes of stigmatization, discrimination, disrespect and non-recognition, increasing the difficulty of performing early diagnosis, transmission control and treatment. Therefore, research was carried out to structurally investigate the experience of people with the virus and it was found that depression, often caused by the aforementioned factors, is a recurrent symptom within this group.⁷ In this way, when analyzing the conditions of people included in this environment, it becomes possible to develop prevention and treatment strategies associated with tactics of approximation, dialogue and listening, allowing greater care, in order to welcome and protect those affected by the disease. With the beginning of the HIV/AIDS epidemic in Brazil, it appears that the quality of life of seropositive people in Brazil has worsened dramatically, with the need to improve the health service to better serve AIDS patients and thus provide an improvement in the quality of life. However, years have passed and the underfunding of the Unified Health System (SUS) has brought a totally different scenario, as health services cannot meet the multiprofessional performance in the face of patients' quality of life, as well as due to a low response to treatments, leading to low adherence to ART and, consequently, increased risk of transmission and poor quality of life.¹⁸

In this sense, studies were carried out with the aim of evaluating the quality of life of seropositive patients, revealing a direct relationship between adherence to ART and the improvement in quality of life, compensating for the loss of it after the diagnosis of HIV.⁸ Among the factors affected by the diagnosis, financial concerns, confidentiality of the disease, psychological aspects, and physical exercises can be highlighted. The study shows that the most affected people are the low-income ones, as they have concerns related to food, housing and access to health services, however, the employment factor contributes not only to income, but also to the reduction of these concerns, with increased socialization and stability. Concerning the secrecy of the disease, about 30% are still concerned about maintaining the secrecy of the disease, especially when associated with the environment outside the home, there is a certain embarrassment of taking the medication in places outside the home in order not to reveal their clinical condition, decreasing the quality of life.⁸

Also in this context, psychological aspects can be highlighted, since the treatment offered by the SUS hardly has a multidisciplinary approach, giving greater emphasis only to medicines, not taking care of psychological aspects such as the performance of a psychologist, working to improve quality of life of the seropositive when working the process of acceptance of the disease. In addition, the role of a physical educator is also present, due to the need and importance of the practice of physical exercises, since a research carried out by.⁸ 2017 with several people with HIV, reveal a positive association, which can improve posture, metabolism, cognitive functions, perception of self-image, socialization and, consequently, satisfaction with life. In this study carried out with 227 HIV-positive people, it is pointed out that 87.2% do not practice physical exercises and that only 24.2% are satisfied with life, noting the relationship between the lack of physical exercises and poor quality of life. Another relevant factor

is the relationship between the patient's age and the acceptance of the disease and the reduction of self-prejudice, with an improvement prevailing with the patient's age, mainly due to acquired maturity, revealing that only 37.9% of patients have a good acceptance of HIV.^{8,18}

In this way, the relationship between quality of life and economic and psychological factors and the practice of physical exercises can be seen, and that there is a need for multidisciplinary action in Basic Health Units to care for seropositive patients. In addition, it is important to encourage adherence to ART, so that patients are cataloged and thus recognize factors that impair the quality of life of each one, so that the public service subsidizes policies to improve the health and quality of life of these patients, forming networks support that supports everyone.

According to Sousa et al.,¹¹ the socioeconomic and behavioral profiles of individuals can directly influence the dynamics of this pathology. In this context, when analyzing any quantitative changes in a disease, such as AIDS, which has qualified as an important public health problem in the State of Maranhão, it is possible to notice that there are also differences in the public affected by it. Thus, it is necessary to point out that cases tend to be concentrated in areas of greater population density, one of the reasons being the intense flow of people seeking diagnosis or treatment, as the offer for HIV testing and for services provided with better infrastructure in the municipalities is still low. In addition, the frequent turnover of professionals, the interruption of actions and the inconsistency between the epidemiological reality and the programs developed are issues that affect the achievement of this level of care in preventive and assistance activities aimed at controlling AIDS, according to Sousa et al.¹¹

In addition, studies show that large urban centers, such as the capital of Maranhão, tend to have high rates of social inequality and that individuals belonging to the poorest strata are more susceptible to contamination. This is because the lack of information and less access to health services, due to the very high demands for care in public environments aimed at health care, are conditions that weaken this part of the population. Furthermore, the situation of extreme poverty and social exclusion contribute to the spread of the HIV virus, through dangerous behaviors arising from this reality, such as prostitution and drug trafficking.¹¹ In this scenario, since this disease is directly associated with several spheres (structural, social and behavioral), it can influence in different ways the number of cases in a population of the same geographic space due to poor living conditions and other risk behaviors, there is a need to make efforts to understand and change the dynamics of AIDS in these places.

In Brazil, it is possible to affirm that the population contaminated by the HIV virus has some predominant characteristics, which should always be highlighted when carrying out a study on the subject. Thus, it is legitimate to show that there is a direct link between sociodemographic and behavioral factors and the transmission of AIDS.¹⁹ In this sense, some studies were carried out in order to categorize which profiles were most affected by the disease. Thus, it was found that, in Maranhão, most of the cases analyzed in a given period of time occurred in individuals of mixed race, male, aged between 25 and 44 years and with low education. And, finally, the main route of transmission was through heterosexual relationships.⁵ In addition, among the main risk behaviors that are connected with the pathology is the use of alcohol and other drugs, since a prevalence of HIV is indicated in 5.4% of users. Added to this is the fact that women

who live with the virus are the ones who consume drugs the most and that the use of illicit substances is directly linked to the absence of condom use and low adherence to treatment. Another condition that must be exposed is the direct connection between contamination with the lack of information and little schooling.^{19,20}

Thus, the last aspect to be emphasized is the association between the female sex and the marital status variable, noting that most infected women are married or in a stable union. Thus, within these relationships, only 14% of individuals reported using condoms in the 12 months prior to the study, and the most used argument for this negligence was the lack of need; for having only one partner. However, 17% of respondents had extramarital relations in the same period, of which 71% were men and 9% did not use a condom.⁵ Thus, the studies mentioned above demonstrate that there is an increase in the number of infected women, but that the HIV virus is still predominant in diseases.²⁰ Therefore, it is clear that it is extremely necessary to increase preventive actions and that this can be encouraged by empowering Primary Care in the fight against the AIDS epidemic in Brazil.

Final considerations

Based on the above, in the State of Maranhão, one can see the dynamics among the population living with HIV/AIDS, their socioeconomic conditions and lifestyles; that is, in horizontal transmission, brown skin color, male sex, adulthood, drug use and low schooling stand out, and in vertical transmission, the reduced gestational and post-gestational follow-up. In this way, it is possible to point out the most affected mesoregions, that is, those where the aforementioned characteristics are more present, in urban conglomerates and peripheries. In addition, the study makes it possible to identify that poverty, added to the State deficit in health, has the spread of HIV as a product. Finally, it is inferred that there is a need for multidisciplinary action in the UBS, since these are indispensable in the diagnosis, treatment, maintenance of this, as there is a high level of abandonment, acceptance of the disease and conservation of quality of life. Through the listed facts, the vulnerabilities regarding this STIs were evidenced and - from these - public policies are necessary to mitigate these alarming numbers in the State of Maranhão.

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Conflicts of interest

The authors declares that there is no conflict of interest.

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