Original Research Article

PROFILE OF ELDERLY PEOPLE WITH HIV IN BRAZIL FROM 2019 TO 2023

ABSTRACT

Objective: To demonstrate the epidemiological profile of HIV cases in the elderly in Brazil from 2019 to 2023
Method: This is a descriptive epidemiological study, with a quantitative approach by the SUS Information Technology Department (DATASUS).
Results: The Southeast Region is the most affected and the Central-West has the least coverage, males are the most prevalent with HIV/AIDS, in terms of hierarchy, heterosexuals, homosexuals and bisexuals were the most prevalent cases.
Considerations: The data pointed to the invisibility of the AIDS problem among the elderly, with health education for this population and greater inclusion of the elderly in government programs to combat STIs being essential.

Keywords

Sexual behavior; eiderly; HIV; communicable diseases.

INTRODUTION

Historically censored, the sex lives of the elderly are fraught with taboos and negative stereotypes. However, the increase in cases of acquired immunodeficiency syndrome (AIDS) among the elderly in Brazil has brought to light a problem of public health and inequality, due to the exclusion of this public from policies for the protection and prevention of sexually transmitted infections (STIs).[(1)]

The Brazilian population has maintained an ageing trend in recent decades, surpassing the 30.2 million mark in 2017.[(2)] It is known that most elderly people live with one or more chronic diseases, however, in recent years, an infectious disease, AIDS, has become increasingly present in this population. HIV is the virus that causes AIDS and attacks the immune system, which is responsible for defending the body against disease.[(3)]

At the beginning of the epidemic, the discovery of HIV was marked by a rapid prognosis of death. The inclusion of different free treatments since 1996 has increased the chances of survival, even at older ages. Deaths in Brazil among the elderly with

HIV/AIDS as the cause, from the beginning of records until 2016, totaled 16,283 deaths - 11,199 men and 5,082 women.[4]

Between 1980 and June 2021, 1,045,355 AIDS cases were identified in the country, with 32,701 new HIV cases and 29,917 AIDS cases diagnosed in 2021, with a detection rate of 14.1 per 100,000 inhabitants.[5]

However, since the 1990s this situation has changed. With the introduction of drugs that combat erectile dysfunction, more intense sexual activity has been made possible for the elderly, changing the sexual pattern of this population. In addition, women in the same age group remain active, despite having less frequent sex. However, with the resumption of sexual relations by their partners and the difficulty in negotiating the use of condoms, these women become equally vulnerable to HIV contamination and, consequently, to the development of AIDS. Even in this scenario, health professionals still find it difficult to associate HIV/AIDS with the elderly.[6]This raises the question: What is the epidemiological profile of elderly HIV cases in Brazil between 2019 and 2023?

In this sense, studying the epidemiological profile is of great relevance in our area, because as health professionals, we experience this reality in practice in our workplace, seeing that the elderly have been seeking therapies that help them to have an active sex life, the number of this group with AIDS has increased, which aroused our interest in this topic, and another fact was the affinity with the subject of elderly health in the classroom.

Since it is of the utmost importance to discuss this issue so that everyone understands the growing seriousness of elderly people with HIV. Since it involves much more than meets the scientific eye, it causes suffering, sadness, damage to health, ranging from lack of information, taboos, shame, preconceptions and death.

This study can awaken the critical-scientific sense of professionals working in health and education, so that they can carry out activities that make it possible to reduce the transmission of HIV to the elderly population in general. The study thus aims to demonstrate the epidemiological profile of HIV cases in the elderly in Brazil between 2019 and 2023.

METHODS

Type of study

This is a descriptive epidemiological study with a quantitative approach. The main aim of descriptive research is to analyze the characteristics of a given population or phenomenon in order to establish relationships between variables.[7-8]

Quantitative research is research in which numerical data on variables is collected and analyzed. In this way, this type of research is able to identify the nature of realities; it can determine the strength of association or correlation between variables; the generalization and objectification of results, through a sample that makes inferences to a whole. The data collected is presented in percentages, numbers or quantities.[9]

Data source

The research was carried out using data on elderly people with HIV from 2019 to 2023, reported in the SUS Information Technology Department (DATASUS), i.e. over a five-year period. The choice of this system is justified because it brings together statistical data recorded in this system. DATASUS provides information that can contribute to objective analysis of health circumstances, decision-making based on indicators and the development of health action programs.[10]

Measuring the health of the population is a tradition in public health, and through DATASUS it is possible to verify the system's systematic recording of mortality and survival data (Vital Statistics - Mortality and Live Births). All this technological apparatus makes it possible to understand the analysis of the health situation in its dimensions of the state of health, the control of infectious diseases and their population determinants.[10]

Data collection

The data was collected using a secondary source from the SUS Information Technology Department (DATASUS), in which a table was formed with the number of HIV cases in the elderly for the years 2019 to 2023 in the regions of Brazil. This collection will take place during the months of March and April 2024. For these parameters, the following commands available on the website will be followed: “Access to Information” >> “TABNET” >> “Epidemiology and Morbidity” >> “AIDS Cases - Since 1980 (SINAN)” >> “AIDS - since 1980” >> “Brazil by Region”.

Sample

The sample definition took into account all the registers whose planning included checking for legality and regularity during the proposed period in the regions of Brazil.

Criteria for inclusion and exclusion

The inclusion criteria included all data from 2019 to 2023, i.e. the last 5 years. Exclusion criteria were records from less than 2019.

Variables to study

The variables investigated in the study were: the number of elderly people diagnosed with HIV, age group, exposure category, gender and distribution by region of the country in the secondary databases freely accessible to the public by DATASUS, Ministry of Health (MS).

Procedures for obtaining and analyzing data

The data was organized using the TABNET tabulator, developed by the Ministry of Health and available on DATASUS, and transferred to Microsoft Office 365 Excel spreadsheets for descriptive analysis.

Risks and benefits

This research presents minimal risks, considering that it was carried out using sources provided by DATASUS.

The benefits of this study are intended for the general population, as it will provide an overview of the inspection situation over the last five years and will help the competent bodies, health institutions and professionals to plan more effective actions and mechanisms to reduce deaths, as well as encouraging new studies in the scientific community.

Ethical aspects

In accordance with Resolution 506/16 of the National Health Council (CNS), it is not necessary to submit this study to a Research Ethics Committee, as it does not involve intervention in the study population, since it uses a secondary database that is freely accessible to the public.

RESULTS

Between 2019 and 2023, 157,308 new cases of people with HIV/AIDS were identified in Brazil, of which 20,430 in the North, 37,623 in the Northeast, 58,095 in the Southeast, 28,202 in the South and 12,958 in the Midwest (Table 1). Among these are the elderly, with a total of 10,727 (Table 1).

Table 1-Frequency by Region of Residence, according to year of diagnosis between 2019 and 2023- SINAN/ SIM/SISCEL[11]

Diagnostic Year	North Region	Northeast Region	Southeast Region	South Region	Central-West Region	Total
2019	4.836	9.220	13.969	7.102	3.161	38.288
2020	3.657	7.250	11.749	5.458	2.448	30.562
2021	4.892	8.321	13.041	6.284	2.886	35.424
2022	4.909	8.812	13.527	6.464	3.041	36.753
2023	2.136	4.020	5.809	2.894	1.422	16.281
TOTAL	20.430	37.623	58.095	28.202	12.958	157.308

The frequency of elderly people by region of residence according to the year of diagnosis during the period 2019 to 2023 involves the five regions of the country, with the Southeast standing out most in the years in question, with 2019 standing out with 950 cases of people diagnosed and 2023 with 385, while the Midwest showed the lowest rate with 90 cases in 2023 and the highest increase in 2022 with 196 (Table 2).

Table 2-Distribution of elderly people by region of the country from 2019 to 2023 - SINAN/ SIM/SISCEL[11]

Year Diagnosis	Region North	Region Northeast	Region Southeast	Region South	Central West Region	Total
2019	197	546	950	632	184	2.509
2020	172	408	814	521	131	2.046
2021	238	536	923	562	186	2.445
2022	255	600	968	638	196	2.657
2023	123	242	385	230	90	1.070
TOTAL	985	2332	4.040	2583	787	10.727

Table 3 shows that the highest number of diagnoses of the disease between 2019 and 2023 was in the 60-69 age group, with 8,355 cases, and in the 70-79 age group, with a total of 1,973.

Table 3-Elderly according to age group (13): 60 and over, period: 2019-2023- SINAN/ SIM/SISCEL(11)

Age group (13)	2019	2020	2021	2022	2023	Total

60-69	1.969	1.563	1.906	2.052	865	8.355
70-79	454	395	447	495	182	1.973
80 or older	86	88	91	109	23	397
ignored	0	0	1	1	0	2
TOTAL	2.509	2.046	2.445	2.657	1.070	10.727

Among Brazil's five regions, males had a higher rate of diagnosis of the disease, with a total of 6,628, compared to females with 4,098 (Table 3), with the Southeast region having the highest number of cases and the Midwest the lowest.

Table 4 – Gender of the elderly by region of the country - SINAN/ SIM/SISCEL[11]

Sex	Northern Region	Northeast Region	Southeast Region	Southern Region	Central-West Region	Total
Masculine	676	1.549	2.432	1.496	475	6.628
Female	309	783	1.607	1.087	312	4.098
In whithe	0	0	1	0	0	1
TOTAL	985	2.332	4.040	2.583	787	10.727

In Table 5, the hierarchical exposure category is expressed, of which heterosexuals were the most prominent with the diagnosis of the disease during the years 2019 to 2023, with 2019 having the highest cases compared to the other years and almost non-existent with only 1 in each of the cases of hemophiliacs and those of transfusion.

Table 5-Frequency according to Hierarchical Exposure Category by Year of Diagnosis period: 2019-2023 - SINAN/ SIM/SISCEL[11]

Categ Exp Hierar	2019	2020	2021	2022	2023	Total
Homosexual	66	66	92	89	40	353
Bisexual	45	32	38	37	19	171
Heterosexual	948	694	799	781	345	3.567
UDI	8	8	8	13	2	39
Hemophiliac	0	0	0	1	0	1
Transfusion	0	0	0	1	0	1
Vertical Transmission	5	5	3	7	2	22
Ignored	1.437	1.241	1.505	1.728	662	6.573
TOTAL	2.509	2.046	2.445	2.657	1.070	10.727

DISCUSSION

The growing rate of elderly people with HIV/AIDS is related to various factors

such as: the growth of the elderly population due to increased life expectancy (demographic transition); the continuation of sexual life even with ageing due to improved quality of life; advances in the area of health, such as the development of drugs for erectile dysfunction; the invisibility of sex in old age due to prejudice and lack of information; low adherence and intolerance of elderly men to male condoms; and the lack of public policies for the prevention of STIs aimed at this age group.[12]

Among the elderly who have been notified most about AIDS are those aged between 60 and 69. The Brazilian Institute of Geography and Statistics (IBGE)[13] points out that this age group accounts for 7.5% of the total population, while the elderly over 70 and over account for approximately 6%. Therefore, given this data, it is possible to infer that the higher percentage of involvement found in this study is due to the higher proportion of elderly people in this age group (60-69). Another factor pointed out in the literature was HIV infection in adulthood.[14] It is estimated that 50% of AIDS infections in the elderly occur on average at the age of 56.6.[15] In addition, sexual life among the elderly up to the age of 69 is more active than among those aged 70 and over, in view of the physiological and pathological changes of senescence.[16]

In this study, the highest number of HIV/AIDS cases was among men. This result was similar to that observed in other studies carried out in different regions of Brazil. HIV infection has been more frequent among men, with the main route of transmission being sexual, and mostly in heterosexual relationships. Consistent data from the literature shows that the male population is less concerned about their health and, consequently, less likely to seek health services. The lack of adherence to health services may be related to the stereotype of the male figure, where masculinity is linked to strength and the idea that there is less chance of getting sick.[5]

The Southeast reached 4,140, showing that in this region alone the infection rate is much higher than in the others. We can argue that this high contagion factor in the Southeast is due to the fact that it is one of the most developed regions in Brazil, where tourism is high, there is a greater likelihood of contracting infection from outside and due to the non-use, or incorrect use, of condoms, the resident population is young, of working age, and is in constant contact with the external environment.[17]

In terms of exposure categories, heterosexual men account for most of the cases recorded, followed by homosexuals and, lastly, bisexuals. In agreement, studies available in CSP -Cadernos de Saúde Pública, which were carried out on specific

populations, such as men who have sex with men, showed a high prevalence of HIV in this group. Furthermore, because heterosexual men are not perceived as a group at risk of HIV infection, they are subsumed under the category of “general population” in epidemiological surveillance analyses, and are not highlighted in prevention policies or actions, despite having the highest incidence rate.[18]

Limitation of the study

The study's limitations lie in the use of secondary data, allowing for possible underreporting, typing and recording errors. On the other hand, it is believed that as the data is national and official and must be filled in by all health services, the results allowed the proposed objectives to be achieved.

Contributions of the study

This study contributes to the implementation of strategies aimed at reducing stigma in relation to sexuality in the elderly population, educational practices for this target audience, as well as new research that addresses the relationship between the elderly and HIV, and thus the targeting of health promotion, prevention and rehabilitation measures.

FINAL CONSIDERATIONS

It has been shown that HIV/AIDS is a disease that can involve any socio-economic group, including children, adolescents, adults, young people and the elderly, the latter due to the increased use of condoms, access to erectile dysfunction medication and other influential factors in personal life. This reality is still present today.

In view of this, it was noticed that in the regions of Brazil between 2019 and 2023 the number of diagnoses of the disease was high, with the Southeast having the highest number of cases, which implies the absence of attention to this public or the lack of will itself due to certain existing taboos.In terms of gender, males were more affected than females and other cases.

This work made it possible to identify the prevalence of AIDS among the elderly between 2019 and 2023 according to region and gender. In this period of time, 10,727 new cases of AIDS were reported among elderly Brazilians, mostly in the age group between 60 and 80 years and over. Furthermore, it was found that males were more affected than females in all the years analyzed. With this in mind, the data pointed to the

invisibility of the AIDS problem among the elderly, and health education for this population and greater inclusion of the elderly in government programs to combat STIs are essential.

REFERENCES

1- Monteiro BF. HIV/AIDS among the elderly: an integrative review. 29f. 2022. Capstone (Bachelor's Degree in Physiotherapy), Institute of Health and Society, Federal University of São Paulo - UNIFESP- Baixada Santista Campus. Santos. 2022. Available at: https://repositorio.unifesp.br/bitstream/handle/11600/65415/TCC%20BEATRIZ%20MONTEIRO_PDFA.pdf?sequence=9&isAllowed=y. Accessed on: August 20, 2023.

2- Brazilian Institute of Geography and Statistics. Continuous National Household Sample Survey – Characteristics of Residents and Households, IBGE. 2018. Rio de Janeiro, 2018a. Available at: https://agenciadenoticias.ibge.gov.br/agencia-noticias/2012-agencia-de-noticias/noticias/20980-numero-de-idosos-cresce18-em-5-anos-e-ultrapassa-30-milhoes-em-2017.

3- Nierotka RP, Ferretti F. Elderly people with HIV/AIDS: an integrative review. Interdisciplinary aging stud., Porto Alegre, v. 26, n. 2, p. 333-356, 2021. DOI: 10.22456/2316-2171.98707. Available at: https://seer.ufrgs.br/index.php/RevEnvelhecer/article/download/98707/65791/500060. Accessed on: August 18, 2023.

4- BRAZIL. Ministry of Health. Health Surveillance Secretariat. HIV/AIDS Epidemiological Bulletin 2018, v. 49, n. 53, 2018. Available at: http://www.aids.gov.br/pt-br/pub/2018/boletim-epidemiologico-hivaids-2018.

5- Santos TC. Andrade AC, Viana IG, Silva RM, Bezerra VM. Temporal analysis of the incidence of HIV/AIDS in the elderly from 2007 to 2020. Rev. Bras. Geriatr. Gerontol. 2021;24(5):e220005. DOI: https://doi.org/10.1590/1981-22562021024.220005.pt. Available at: https://www.scielo.br/j/rbgg/a/fJcbyj7FG8ss3X5Gs6z38Wk/?lang=pt. Accessed on: August 17, 2023.

6- Carvalho PA, Aragão IP. HIV/AIDS epidemic among the elderly population of Brazil from 2008 to 2018: an epidemiological analysis. HU Rev., v. 48, p. 1-7, 2022. DOI: 10.34019/1982-8047.2022. Available at: https://periodicos.ufjf.br/index.php/hurevista/article/view/37626/24927. Accessed on: August 15, 2023.

7- Fontelles MJ. Simões, MG, Farias SH, Fontenelles RG. Scientific research

methodology: guidelines for developing a research protocol. Rev. para. Med., v. 23, n. 3, 2009. Available at: https://pesquisa.bvsalud.org/portal/resource/pt/lil-588477. Accessed on: November 5, 2023.

8- Gil AC. How to develop research projects. São Paulo: Atlas, 2002. Available at: https://docente.ifrn.edu.br/mauriciofacanha/ensino-superior/redacao-cientifica/livros/gil-a.-c.-como-elaborar-projetos-de-pesquisa.-sao-paulo-atlas-2002./view. Accessed on: November 3, 2023.

9- Esperón JM. Quantitative Research in Nursing Science. Esc. Anna Nery, v. 21, n. 1, 2017. DOI: https://doi.org/10.5935/1414-8145.20170027. Accessed on: November 5, 2023.

10- BRAZIL. Ministry of Health. DATASUS. Health information (TABNET) Ministry of Health. 2023. Available at: https://datasus.saude.gov.br/informacoes-de-saude-tabnet/. Accessed on: June 3, 2023.

11- BRAZIL. Ministry of Health. DATASUS/SINAN. STD/AIDS. Data tabulation. 2024. Available at: https://www2.aids.gov.br/cgi/tabcgi.exe?tabnet/br.def. Accessed on: March 7, 2023. 2024.

12- Borges JP, Coelho JG, Matos GC, Costa RP, Silva FG, Fonseca BS et al. (2021). Evolution of the epidemiological profile of AIDS among the elderly in Brazil from 2009 to 2019. Revista Eletrônica Acervo Saúde, 13(10), e9148. https://doi.org/10.25248/reas.e9148.2021 Accessed on: August 15, 2023.

13- Brazilian Institute of Geography and Statistics. Projections and estimates of the population of Brazil and the Federation Units. IBGE. 2018b. Available at: https://www.ibge.gov.br/apps/populacao/projecao/index.html?utm_source=portal&utm_medium=popclock&utm_campaign=novo_popclock Accessed on: September 4, 2021

14- Aguiar RB. Leal MC, Marques AP, Torres KM, Tavares MN. Older adults living with HIV – behavior and knowledge about sexuality: an integrative review. 2020 Ciê. & Saúde Coletiva, 25(2): 575-584. DOI: 10.1590/1413-81232020252.12052018. Available at: https://www.scielosp.org/pdf/csc/2020.v25n2/575-584/pt. Accessed on: August 17, 2021. 2023.

15- Cruz GE, Cardoso DF, Silva ES, Silveira RC, Silva AE, Apóstolo JL. Late diagnosis of Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome in the Elderly: scoping review protocol. Enfermería Actual de Costa Rica, 2020; (38): 292-299 https://www.scielo.sa.cr/pdf/enfermeria/n38/1409-4568-enfermeria-38-292.pdf

16- Vieira CP, Costa AC, Dias MC, Araújo TM, Galiza FT. Trends in HIV/AIDS infections: aspects of occurrence in the elderly between 2008 and 2018. Anna Nery School, 2021; 25(2): 1-8. https://www.scielo.br/j/ean/a/9V6gqMwRYQkJJW3LDgWgRLD/?format=pdf&

lang=en

17- Aguiar TS, Fonseca MC, Santos MC, Nicoletti GP, Alcoforado DS, Santos SC, et al. Epidemiological profile of HIV/AIDS in Brazil based on data from DataSUS in the year 2021. Pesquisa, Sociedade e Desenvolvimento, [S. l.] , v. 3, p. e4311326402, 2022. DOI: 10.33448/rsd-v11i3.26402. Available at: https://rsdjournal.org/index.php/rsd/article/view/26402. Accessed on: May 15, 2024.

18- Teixeira LG, Chagas BL, Alves FS, Padron GM,Ribeiro JC, Amaral, RC, et al. The epidemiological profile of AIDS in Brazil / The epidemiological profile of AIDS in Brazil. Brazilian Journal of Health Review, [S. l.], v. 1, p. 1980–1992, 2022. DOI: 10.34119/bjhrv5n1-174. Available at: https://ojs.brazilianjournals.com.br/ojs/index.php/BJHR/article/view/43504. Accessed on: May 14, 2024