CHAGAS DISEASE IN BRAZIL: EPIDEMIOLOGICAL ANALYSIS AND EVALUATION OF HEALTH EDUCATION STRATEGIES IN LIGHT OF THE SOCIAL DETERMINANTS OF HEALTH

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Abstract

Chagas disease remains a significant public health problem in Brazil, strongly influenced by social, economic, and environmental determinants. This study aimed to analyze the epidemiological profile of the disease in the country and to evaluate health education strategies in light of the social determinants of

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health. It is an integrative review with an epidemiological approach, conducted through searches in the SciELO, PubMed, and Latindex databases, as well as official documents, covering the period from 2022 to 2026. The findings revealed a heterogeneous distribution of the disease, with higher concentration in the North and Northeast regions, predominance among adults and older individuals, and association with low educational levels and racially vulnerable populations. A transition in transmission patterns was also observed, particularly the increase in oral transmission in specific regions. Regarding health education, participatory and context-sensitive strategies demonstrated greater effectiveness, although challenges related to continuity, intersectoral articulation, and sociocultural adequacy persist. It is concluded that the persistence of Chagas disease is directly linked to social inequalities, highlighting the need to strengthen integrated public policies focused on health education and equity. This study contributes to a broader understanding of the disease and supports the development of more effective control strategies.

Keywords: Chagas Disease, Epidemiology, Health Education, Public Health, Social Determinants of Health.

INTRODUCTION

Chagas Disease, also known as American trypanosomiasis, constitutes an important public health problem in Latin America, with significant relevance in Brazil due to its high historical, social, and epidemiological burden. It is a disease caused by the protozoan Trypanosoma cruzi, transmitted mainly by triatomine vectors, although other forms of transmission, such as transfusional, congenital, and oral, are also recognized (Sousa et al., 2024; Hochberg; Montgomery, 2023). Despite advances in vector control, the disease remains a persistent challenge, especially among vulnerable populations, reflecting structural inequalities and limitations in access to health services (WHO, 2024; PAHO, 2023).

In the Brazilian context, Chagas Disease presents complex epidemiological characteristics, marked by the transition from the classic vector-borne transmission profile to forms associated with the

ingestion of contaminated food, especially in the Amazon region (Brazil, 2024). In addition, recent estimates indicate a significant prevalence of chronic cases distributed heterogeneously among municipalities, demonstrating the persistence of the disease even after decades of public health interventions (Laporta et al., 2024). This spatial heterogeneity is strongly associated with environmental, socioeconomic, and cultural factors, which influence both exposure to the vector and access to diagnosis and treatment (Lino; Azeredo; Oliveira, 2024).

From a clinical perspective, Chagas Disease presents a biphasic course, comprising an acute phase that is often asymptomatic or oligosymptomatic, followed by a chronic phase that may progress to severe forms, especially Chagas cardiomyopathy, considered the main cause of morbidity and mortality associated with the disease (Jimenez; Winokur, 2023; Marin-Neto et al., 2023). This condition significantly affects the quality of life of affected individuals and places a burden on health systems, reinforcing the need for effective strategies for prevention, early diagnosis, and appropriate clinical management (Santos; Costa; Silva, 2025).

However, beyond biomedical aspects, Chagas Disease must be understood in light of the social determinants of health, which encompass housing conditions, income, schooling, access to health services, and sociocultural contexts. Historically associated with rural poverty and precarious housing, the disease remains a marker of social inequities, perpetuating cycles of vulnerability and exclusion (Gomes, 2022; Pereira-Silva; Mello; Araújo-Jorge, 2022). In this sense, the social invisibility of chronic patients, often neglected by public policies, constitutes one of the main obstacles to the effective control of the disease.

Given this scenario, the need emerges for integrated approaches that articulate epidemiological surveillance, health care, and health education actions, especially in contexts of greater vulnerability. Health education constitutes a strategic tool for promoting knowledge, strengthening individuals' autonomy, and encouraging the adoption of preventive practices (Aguiar et al., 2022; Oliveira; Barbosa; Rodrigues, 2023). Experiences developed in riverside and quilombola communities demonstrate that

contextualized educational interventions can contribute significantly to risk reduction and improvements in health indicators (Jesus et al., 2025).

Despite these initiatives, it is observed that health education strategies still face challenges related to their effectiveness, continuity, and sociocultural adequacy, especially in territories marked by structural inequalities. In this context, Primary Health Care (PHC) plays a fundamental role in the implementation of educational actions and in the longitudinal follow-up of patients, being essential for the consolidation of comprehensive and resolutive practices (Dariva, 2023; Brazil, 2021).

Thus, the persistence of Chagas Disease in Brazil, even in the face of advances in control and public policies, constitutes the research problem, highlighting gaps in addressing the social determinants of health and in the effectiveness of health education strategies. The question therefore arises as to the extent to which educational actions have contributed to reducing incidence and improving the living conditions of affected populations, considering the epidemiological and social specificities of the disease.

The present study aims to analyze the epidemiological profile of Chagas Disease in Brazil and to evaluate the health education strategies implemented, in light of the social determinants of health. It thus seeks to understand the relationships between social, environmental, and cultural factors and the dynamics of the disease, as well as to identify the potentialities and limitations of educational actions in confronting this condition.

The relevance of this research is justified by the need to deepen understanding of a historically neglected disease that still represents an important challenge for Brazilian public health. By integrating epidemiological analysis with the evaluation of educational strategies and social determinants, the study contributes to the formulation of more equitable and effective policies, aligned with the principles of the Unified Health System (SUS), especially with regard to the comprehensiveness and equity of care.

Finally, it is emphasized that confronting Chagas Disease requires intersectoral and sustainable approaches that consider not only clinical and epidemiological aspects but also the social dimensions that perpetuate its occurrence. In this sense, innovative and culturally sensitive strategies, combined with the

strengthening of health surveillance and health education, are fundamental to reducing inequalities and to the effective control of the disease in Brazil (Hernández-Flores et al., 2025).

METHODOLOGY

The present research is characterized as an epidemiological study, with a qualitative and quantitative approach, of the integrative literature review type, with the objective of analyzing the epidemiological profile of Chagas Disease in Brazil, as well as evaluating health education strategies in light of the social determinants of health. This type of study allows for the synthesis of available scientific evidence, favoring a broader understanding of the phenomenon investigated and supporting health-related decision-making.

The research was guided by the following question: what are the current epidemiological characteristics of Chagas Disease in Brazil, and in what way have health education strategies contributed to confronting it, considering the social determinants of health in the period from 2022 to 2026?

To construct the study, a systematized search was carried out in the scientific databases Scientific Electronic Library Online (SciELO), Latindex, and PubMed, in addition to consulting official documents made available by Brazilian governmental bodies, such as the Ministry of Health and the National Health Surveillance Agency. The inclusion of these sources is justified by the relevance and reliability of the information, especially with regard to epidemiological data and public health guidelines.

Controlled and uncontrolled descriptors were used, combined using the Boolean operators AND and OR, in Portuguese and English. Among the main descriptors, the following stand out: “Doença de Chagas,” “Epidemiologia,” “Educação em Saúde,” “Determinantes Sociais da Saúde,” “Chagas Disease,” “Epidemiology,” “Health Education,” and “Social Determinants of Health.” The search strategy was adapted according to the specificities of each database, aiming to increase the sensitivity and specificity of the results.

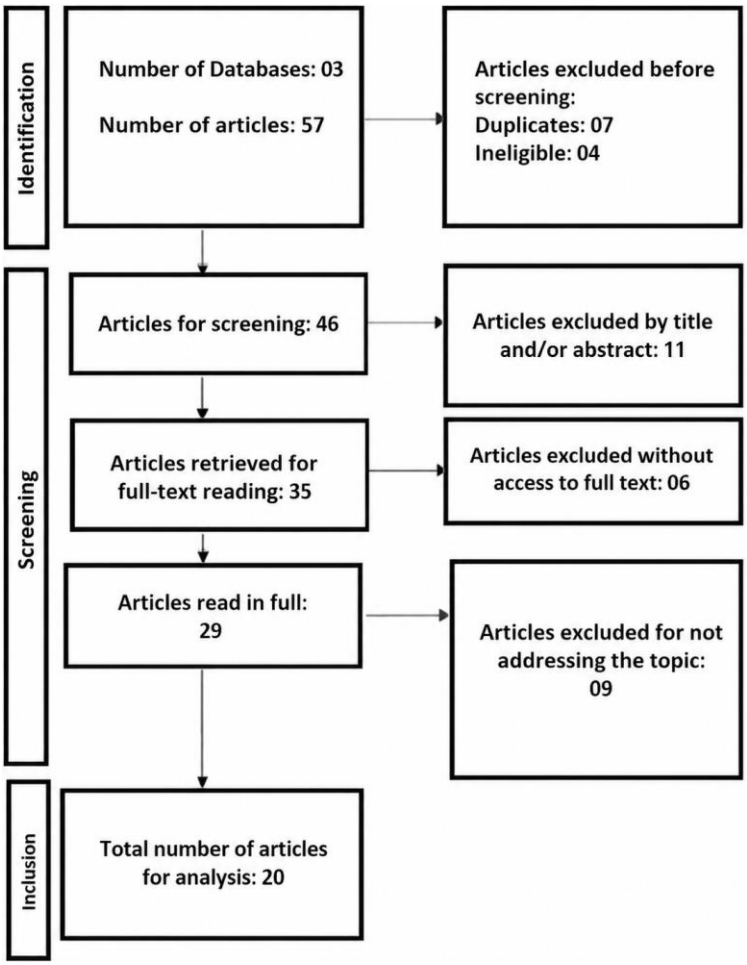
The inclusion criteria adopted were: full scientific articles published between 2022 and 2026; studies available in Portuguese, English, or Spanish; research addressing epidemiological aspects of Chagas Disease in Brazil or health education strategies related to the disease; and updated official documents addressing guidelines, protocols, and epidemiological data. Conversely, duplicate studies, articles not directly related to the proposed topic, publications prior to the established time frame, simple abstracts, editorials, letters to the editor, and works without access to the full text were excluded.

The study selection process occurred in sequential stages: identification, screening, eligibility, and inclusion. Initially, studies were identified in the databases based on the defined search strategy. Subsequently, titles and abstracts were read to exclude irrelevant articles. The full texts were then analyzed for compliance with the established criteria. At the end of this process, the selected studies comprised the review sample.

The systematization of the search and selection process is represented in Figure 1, which illustrates the flowchart of the methodological stages adopted, from the identification of records to the final inclusion of the analyzed articles.

Figure 1

Flowchart of the study selection process



Source: Authors (2026)

For data analysis, the thematic content analysis technique was used, allowing the organization and interpretation of information into analytical categories related to the epidemiological profile of the disease, the social determinants of health, and health education strategies. This approach made it possible to identify patterns, gaps, and convergences in the literature, contributing to a critical and well-founded analysis.

Finally, it is emphasized that the ethical principles of scientific research were respected, with proper citation of the sources used, in accordance with the standards of the Associação Brasileira de Normas Técnicas (ABNT), ensuring the reliability and integrity of the information presented.

RESULTS AND DISCUSSION

The results of this integrative review show that Chagas Disease remains an important public health problem in Brazil, presenting a heterogeneous distribution and being strongly influenced by social, environmental, and structural determinants. The analysis of studies selected for the period from 2022 to 2026 made it possible to identify relevant epidemiological patterns, as well as persistent gaps in coping strategies, especially with regard to health education and equity in access to services.

With respect to geographic distribution, it is observed that the occurrence of the disease varies significantly among Brazilian regions, with a higher concentration of cases in the North and Northeast regions, especially in rural areas and traditional communities. This distribution is associated both with the presence of vectors and with socioenvironmental conditions favorable to transmission, such as precarious housing and difficulties in accessing health services (Brazil, 2024; PAHO, 2023). Furthermore, the Amazon region has stood out due to the increase in cases related to oral transmission, especially through the consumption of contaminated foods, such as açaí (Santos; Costa; Silva, 2025).

Figure 2 presents the distribution of the number of confirmed cases by region, showing predominance in the North and Northeast regions, followed by the Center-West, while the South and Southeast regions show lower incidence, albeit with a significant contingent of chronic cases.

Figure 2

Number of confirmed cases by region

Year 1st Symptom(s)	1 North Region	2 Northeast Region	3 Southeast Region	4 South Region	5 Central-West Region	Total
TOTAL	**1,923**	**49**	**16**	**11**	**10**	**2,009**
2019	22	-	-	-	1	23
2020	162	1	4	-	1	168
2021	324	9	1	4	2	340
2022	387	16	7	2	3	415
2023	526	9	3	4	1	543
2024	502	14	1	1	2	520

Source: Adapted from Ministério da Saúde/SVSA - Sistema de Informação de Agravos de Notificação - Sinan Net (2026)

With regard to sex, the analyzed studies demonstrate a slight predominance of males among confirmed cases, which may be related to occupational factors, such as greater exposure to rural environments and agricultural activities, as well as lower adherence to health services among men (Lino; Azeredo; Oliveira, 2024). Nevertheless, it is noteworthy that the disease significantly affects both sexes, making it necessary to consider care approaches that address gender-specific characteristics.

Figure 3 illustrates the distribution of confirmed cases by sex, showing the percentage difference between men and women, although without a marked discrepancy between the groups.

Figure 3

Number of confirmed cases by sex

Year 1st Symptom(s)	Male	Female	Total
TOTAL	**1.077**	**932**	**2.009**
2019	9	14	23
2020	106	62	168
2021	178	162	340
2022	208	207	415
2023	294	249	543
2024	282	238	520

Source: Adapted from Ministério da Saúde/SVSA - Sistema de Informação de Agravos de Notificação - Sinan Net (2026)

Regarding age group, a higher prevalence of Chagas Disease is observed among adults and older adults, especially those over 40 years of age, reflecting the chronic nature of the disease and past exposure to conditions of higher transmission risk (Laporta et al., 2024). This finding is consistent with the history of vector control in Brazil, which reduced incidence among younger generations but maintained a high disease burden among individuals previously infected.

Figure 4 presents the distribution of cases by age group, highlighting the predominance among middle-aged adults and older adults, reinforcing the need for specific clinical follow-up strategies for this population group.

Figure 4

Number of confirmed cases by age group

Year 1st Symptom(s)	<1 Year	1-4	5-9	10-14	15-19	20-39	40-59	60-64	65-69	70-79	80 and older	Total
TOTAL	**28**	**94**	**141**	**166**	**167**	**673**	**529**	**60**	**61**	**68**	**22**	**2.009**
2019	1	5	2	1	2	7	4	-	-	1	-	23
2020	-	4	10	9	10	64	61	2	2	4	2	168
2021	5	14	22	28	30	108	95	9	10	16	3	340
2022	5	21	23	39	24	139	107	21	18	14	4	415
2023	11	33	43	38	57	175	134	16	14	15	7	543
2024	6	17	41	51	44	180	128	12	17	18	6	520

Source: Adapted from Ministério da Saúde/SVSA - Sistema de Informação de Agravos de Notificação -Sinan Net (2026)

With regard to education level, it is observed that most cases are concentrated among individuals with low levels of schooling, especially those with incomplete elementary education or no formal education. This finding highlights the direct relationship between Chagas Disease and the social determinants of health, since lower educational levels are associated with less understanding of preventive measures, limited access to information, and greater social vulnerability (Aguiar et al., 2022).

Figure 5 shows the distribution of confirmed cases according to education level, evidencing predominance among individuals with low schooling, reinforcing the need for accessible health education strategies adapted to the sociocultural context of these populations.

Figure 5

Number of confirmed cases by education level

Year 1st Symptom(s)	White/Blank	Illiterate	1st to 4th grade incomplete of ES	4th grade complete of ES	5th to 8th grade incomplete of ES	Complete elementary education	Incomplete high school education	Complete high school education	Incomplete higher education	Complete higher education	Does not apply	Total
TOTAL	**333**	**66**	**344**	**116**	**298**	**100**	**151**	**296**	**43**	**88**	**174**	**2.009**
2019	1	-	3	3	4	1	1	4	-	-	6	23
2020	30	6	23	11	33	12	7	21	4	12	9	168
2021	56	14	60	21	49	12	23	57	7	13	28	340
2022	56	12	89	18	68	28	34	61	4	10	35	415
2023	101	20	80	26	75	21	45	71	19	25	60	543
2024	89	14	89	37	69	26	41	82	9	28	36	520

Source: Adapted from Ministério da Saúde/SVSA - Sistema de Informação de Agravos de Notificação - Sinan Net (2026)

Regarding race/color, studies indicate a higher incidence among self-declared brown and Black populations, reflecting historical and structural inequalities in access to health care, housing, and adequate

living conditions (Pereira-Silva; Mello; Araújo-Jorge, 2022). This scenario highlights the intersectionality between social and epidemiological factors, reinforcing the need for public policies that promote equity and social justice.

Figure 6 presents the distribution of confirmed cases by race/color, highlighting the higher proportion among Black and brown populations, in line with the analyzed literature.

Figure 6

Number of confirmed cases by race

Year 1st Symptom(s)	White/Blank	White	Black	Yellow	Brown	Indigenous	Total
TOTAL	**29**	**139**	**122**	**7**	**1.687**	**25**	**2.009**
2019	-	3	-	-	19	1	23
2020	1	14	3	-	144	6	168
2021	5	30	19	1	280	5	340
2022	9	23	24	1	353	5	415
2023	8	41	34	3	451	6	543
2024	6	28	42	2	440	2	520

Source: Adapted from Ministério da Saúde/SVSA - Sistema de Informação de Agravos de Notificação - Sinan Net (2026)

In addition to sociodemographic variables, the analysis of studies made it possible to identify relevant aspects related to health education strategies. It is observed that educational interventions developed in community contexts, especially in rural, riverside, and quilombola areas, yield positive results in increasing knowledge about the disease, adopting preventive practices, and seeking diagnosis and treatment (Jesus et al., 2025). However, these actions are still sporadic and lack greater systematization and continuity.

In this sense, Table 1 synthesizes the main health education strategies identified in the analyzed studies, as well as their impacts and limitations in the Brazilian context.

Table 1

Synthesis of health education strategies in Chagas Disease

Health Education Strategy	Main Actions Developed	Observed Impacts	Identified Limitations	References
Participatory community education	Development of discussion circles, dialogical workshops, and contextualized educational activities, with valuing of popular knowledge and the use of accessible language, considering the sociocultural specificities of the territories	Significant expansion of knowledge about forms of transmission, prevention, and control of the disease; strengthening of community leadership and encouragement of the adoption of sustainable preventive practices	Discontinuity of educational actions, weakness in institutional support, and limited resources for maintaining initiatives over the long term	Jesus *et al*., 2025; Aguiar *et al.,* 2022
Educational actions within Primary Health Care	Carrying out individual and collective educational activities, including lectures, guidance during consultations, home visits, and longitudinal follow-up, integrating education and care	Improvement in the early identification of cases, strengthening of the bond between professionals and users, and greater adherence to clinical follow-up	Team workload overload, limited specific training, and structural weaknesses in health services	Dariva, 2023; Brasil, 2021
Institutional informational campaigns	Preparation and dissemination of educational materials, campaigns in traditional and digital media, and awareness-raising actions at national and regional levels	Increased visibility of the disease and dissemination of basic information to the general population	Communication that is often decontextualized, with low effectiveness among vulnerable populations and difficulty reaching remote areas	Brasil, 2024; OPAS, 2023

Health education in the school environment	Inclusion of content about the disease in pedagogical activities, interdisciplinary projects, and educational actions aimed at health promotion in the school context	Formation of individuals who multiply knowledge, early awareness, and potential intergenerational impact on prevention	Lack of continuous curricular institutionalization and weaknesses in the articulation between the health and education sectors	Oliveira; Barbosa; Rodrigues, 2023
Training and continuing education of health professionals	Promotion of courses, training, and technical-scientific updates on diagnosis, clinical management, and epidemiological surveillance of the disease	Improvement in the quality of care provided, strengthening of surveillance actions, and greater problem-solving capacity of health services	Unequal access to training, discontinuity of educational actions, and regional disparities in professional qualification	Santos; Costa; Silva, 2025
Health education guided by the social determinants	Implementation of integrated educational actions that address living conditions, housing, income, and access to services, articulating health with other public policies	Broader understanding of the health-disease process, strengthening of individuals' autonomy, and greater adherence to care practices	Difficulties in intersectoral operationalization, limited integration among public policies, and persistence of structural challenges	Pereira-Silva; Mello; Araújo-Jorge, 2022

Source: Authors (2026)

Overall, the most effective strategies are those that consider the sociocultural context of populations, use accessible language, and promote active community participation. In contrast, verticalized and decontextualized actions tend to show lower effectiveness, highlighting the importance of a territorial approach and the valorization of local knowledge (Oliveira; Barbosa; Rodrigues, 2023).

Another relevant aspect identified concerns the role of Primary Health Care in confronting Chagas Disease. Studies indicate that PHC plays a central role in case identification, follow-up of chronic patients, and implementation of educational actions, being fundamental to consolidating a comprehensive

and continuous approach to care (Dariva, 2023). However, structural limitations, such as resource scarcity and insufficient professional training, still represent significant challenges.

Additionally, the persistence of the social invisibility of individuals affected by the disease, especially in the chronic phase, is noteworthy, contributing to delayed diagnosis and low adherence to treatment (Pereira-Silva; Mello; Araújo-Jorge, 2022). This invisibility is directly related to social factors such as stigma, poverty, and exclusion, reinforcing the need for strategies that integrate health actions with broader social policies.

Finally, the results show that, although there have been advances in the control of Chagas Disease in Brazil, important challenges persist regarding epidemiological surveillance, access to health services, and the effectiveness of health education strategies. Overcoming these challenges requires the adoption of intersectoral approaches that consider the social determinants of health and promote equity in access to care (Hernández-Flores et al., 2025).

Thus, the data analysis reinforces the need to strengthen public policies aimed at confronting Chagas Disease, with emphasis on integrating surveillance, care, and health education, in order to reduce inequalities and improve the living conditions of affected populations.

The discussion of the findings shows that Chagas Disease remains a complex and multifactorial health condition, whose persistence in Brazil is directly related to the interaction between epidemiological, social, and structural factors. In this sense, the critical analysis of the results will be structured into three thematic axes: (1) epidemiological profile and regional inequalities; (2) social determinants of health and vulnerability; and (3) health education strategies in the Brazilian context. These dimensions make it possible to understand the disease more broadly, in light of recent scientific evidence and transformations in the national health scenario.

EPIDEMIOLOGICAL PROFILE AND REGIONAL INEQUALITIES

The epidemiological profile of Chagas Disease in Brazil reveals a heterogeneous spatial distribution, strongly influenced by historical regional inequalities. As highlighted by Sousa et al. (2024), although vector control has shown significant advances in recent decades, the disease remains endemic in several regions, especially in the North and Northeast, where socio-environmental conditions favor the maintenance of transmission. From this perspective, Brazil (2024) emphasizes that the persistence of cases is associated with the coexistence of different forms of transmission, particularly the oral route, which has become predominant in certain localities.

Santos, Costa and Silva (2025) emphasize that the Amazon region has growing epidemiological relevance due to the increase in outbreaks associated with the consumption of contaminated foods, demonstrating a shift in the disease's classical profile. This transformation imposes new challenges on epidemiological surveillance, which must adapt its strategies to address these emerging dynamics. At the same time, Laporta et al. (2024) point out that the high prevalence of chronic cases in regions such as the Southeast and Center-West reflects the epidemiological legacy of earlier periods, when vector-borne transmission was more intense.

With regard to sociodemographic characteristics, Jimenez and Winokur (2023) highlight that the greater concentration of cases among adults and older adults is related to the long latency period of the disease, as well as to its progression to chronic forms, especially Chagas cardiomyopathy. This scenario reinforces the need for care strategies focused on the management of chronic conditions, with emphasis on the comprehensiveness of care. In addition, Hochberg and Montgomery (2023) stress that internal migratory flows have contributed to the urbanization of the disease, expanding its geographic distribution and epidemiological complexity.

Thus, it is observed that the epidemiological profile of Chagas Disease in Brazil cannot be analyzed in isolation, since it is deeply embedded in social and territorial contexts. The persistence of

regional inequalities highlights the need for more equitable public policies, capable of responding to local specificities and reducing health inequities.

SOCIAL DETERMINANTS OF HEALTH AND VULNERABILITY

The analysis of the social determinants of health reveals that Chagas Disease remains strongly associated with contexts of vulnerability, being considered a neglected disease that reflects structural inequalities. In this sense, Gomes (2022) highlights that the historicity of the disease is intrinsically linked to rural poverty, precarious housing conditions, and social exclusion, factors that continue to influence its distribution throughout the Brazilian territory.

Pereira-Silva, Mello and Araújo-Jorge (2022) emphasize that the social invisibility of individuals affected by the disease, especially in the chronic phase, constitutes one of the main obstacles to confronting it. According to the authors, this invisibility is related to social marginalization, stigma, and the low prioritization of the disease on public health agendas, which contributes to underdiagnosis and poor adherence to treatment. In this context, the disease goes beyond the biomedical field, taking shape as an expression of persistent social inequalities.

Additionally, Lino, Azeredo and Oliveira (2024) demonstrate the correlation between environmental and social factors, such as poor housing conditions, low income, and limited access to education, and the increase in the number of disease cases. These determinants not only favor exposure to the vector but also hinder access to information and health services, increasing the vulnerability of affected populations. In this sense, education emerges as a relevant variable, since lower educational levels are associated with less understanding of preventive measures and lower use of health services.

With regard to racial inequalities, Pereira-Silva, Mello and Araújo-Jorge (2022) highlight that the higher incidence of the disease among Black and brown populations reflects the impact of structural racism on the determination of health conditions. The intersectionality between race, social class, and

territory shows that Chagas Disease disproportionately affects historically marginalized groups, reinforcing the need for public policies that promote equity.

The World Health Organization (WHO, 2024) also emphasizes that Chagas Disease remains among the main neglected tropical diseases, predominantly affecting populations living in poverty and exclusion. Such international recognition reinforces the need for global and local strategies that address not only clinical aspects but also the social determinants that sustain the disease.

Thus, it is understood that Chagas Disease is an expression of a complex social context in which structural inequalities perpetuate its occurrence. Confronting this condition therefore requires intersectoral approaches that articulate health, education, housing, and social assistance, with the aim of reducing vulnerabilities and promoting equity.

HEALTH EDUCATION STRATEGIES IN THE BRAZILIAN CONTEXT

Health education strategies constitute a central element in confronting Chagas Disease, especially with regard to the promotion of knowledge, prevention, and the strengthening of individuals' autonomy. In this sense, Aguiar et al. (2022) highlight that educational actions based on participatory and contextualized methodologies are more effective, since they take into account the sociocultural specificities of the populations involved.

Corroborating this perspective, Jesus et al. (2025) show that interventions carried out in riverside and quilombola communities contributed significantly to increasing knowledge about the disease and to the adoption of preventive practices. According to the authors, the valuing of local knowledge and the use of accessible language are determining factors for the success of educational actions, especially in contexts of social vulnerability.

However, Oliveira, Barbosa and Rodrigues (2023) emphasize that health education strategies still present important limitations, such as the discontinuity of actions and the lack of articulation with other public policies. This fragmentation compromises the effectiveness of interventions, reducing their long-

term impact. In this context, the institutionalization of educational practices within health services is fundamental to ensure their sustainability.

Within the scope of Primary Health Care, Dariva (2023) highlights that health education plays a strategic role in the early identification of cases and in patient follow-up, contributing to the comprehensiveness of care. However, challenges such as team workload overload, limited specific training, and structural weaknesses in health services hinder the systematic implementation of these actions.

Moreover, Hernández-Flores et al. (2025) emphasize that effectively confronting Chagas Disease requires integration among different sectors, including health, education, and social assistance. According to the authors, the absence of intersectoral articulation constitutes one of the main obstacles to the success of educational strategies, evidencing the need for more integrated and sustainable approaches.

Another relevant aspect concerns the adequacy of educational strategies to different sociocultural contexts. The use of technical language and the disregard for local specificities may limit the understanding of information, especially among populations with low levels of schooling. In this sense, culturally sensitive and participatory approaches are fundamental for expanding the reach and effectiveness of actions.

Therefore, the analysis of health education strategies shows that, although they have significant potential for confronting Chagas Disease, they still face challenges related to continuity, articulation, and sociocultural adequacy. Overcoming these limitations is essential to promote sustainable changes and reduce the inequalities associated with the disease.

CONCLUSION

Chagas Disease remains a relevant public health problem in Brazil, standing out as a complex and multifactorial condition, deeply influenced by social, economic, and environmental determinants. From the analysis conducted, it was possible to understand that, despite advances in control and surveillance

policies, the disease still shows high persistence, especially among socially vulnerable populations, reinforcing its character as a neglected disease.

In response to the guiding question, the findings demonstrate that the disease presents a heterogeneous distribution across the national territory, with greater concentration in the North and Northeast regions, and a strong association with factors such as low educational attainment, precarious housing conditions, and racial inequalities. Furthermore, it was found that health education strategies, although relevant, still show limitations in terms of effectiveness, continuity, and adequacy to sociocultural contexts.

With regard to the proposed objectives, the study achieved an analysis of the epidemiological profile of Chagas Disease in Brazil, highlighting patterns related to age group, sex, education, and race/color, as well as identifying the influence of social determinants in maintaining the disease. In addition, it was possible to critically evaluate health education strategies, highlighting both their transformative potential and the challenges that limit their effective implementation.

The main results indicate that the persistence of Chagas Disease is directly related to structural social inequalities, which favor exposure to risk and hinder access to health services. It was also observed that the transition in the transmission profile, with an increase in the oral route, imposes new challenges on epidemiological surveillance. In the field of health education, it became evident that participatory and contextualized strategies yield better results, although they are still insufficiently systematized within public policies.

As a contribution, this research broadens the understanding of Chagas Disease through an integrated approach that articulates epidemiological, social, and educational aspects. By highlighting the centrality of the social determinants of health, the study reinforces the need for more equitable and intersectoral public policies and supports the work of health professionals, especially in Primary Health Care, in developing more effective and contextualized educational practices.

The study also contributes to strengthening the scientific debate on neglected diseases by emphasizing the importance of health education as a fundamental strategy for promoting equity and confronting health inequities. Furthermore, by systematizing recent evidence, the research provides support for the formulation of interventions more aligned with the needs of affected populations.

Finally, it is suggested that future research further explore the effectiveness of health education strategies in different regional contexts, as well as investigate intersectoral interventions that integrate health, education, and social assistance. It is also recommended to develop longitudinal studies that assess the impact of these strategies on reducing disease incidence and improving the quality of life of affected individuals, contributing to the advancement of knowledge and the strengthening of public policies aimed at controlling Chagas Disease in Brazil.

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