



## DIAGNOSTIC PATHWAY: MAPPING OF LOCAL SERVICES AND HEALTH EDUCATION INTERVENTIONS FOR HIV-POSITIVE INDIVIDUALS

ROTA DO DIAGNÓSTICO: MAPEAMENTO DOS SERVIÇOS LOCAIS E INTERVENÇÕES DE EDUCAÇÃO EM SAÚDE PARA SOROPOSITIVOS

RUTA DEL DIAGNÓSTICO: MAPEAMIENTO DE LOS SERVICIOS LOCALES E INTERVENCIONES DE EDUCACIÓN EN SALUD PARA PERSONAS **SEROPOSITIVAS** 



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#### **ABSTRACT**

Introduction: The study "Diagnostic Pathway: Mapping Local Services and Health Education Interventions for HIV-Positive Individuals" addresses the contemporary challenges in tackling HIV/AIDS in Brazil, focusing on the epidemiological reality of Manaus-AM. It highlights the increase in cases in the Northern region and the structural inequalities that hinder access to

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testing and treatment, emphasizing the role of stigma, discrimination, and social vulnerabilities.

**Objective:** The main objective was to map health services dedicated to the diagnosis and follow-up of people living with HIV and to develop health education actions for prevention and strengthening self-care.

**Methodology:** Interventional in nature and educational in character, the study was conducted during a public event in Manaus, following the PICOS framework and integrating dialogic, accessible, and inclusive practices.

**Results:** The findings revealed engagement with 200 participants and identified an unequal distribution of services, which are concentrated in central areas. The educational interventions increased public knowledge, reduced stigma, and strengthened the connection between the community and health services.

**Discussion:** The study highlights the relevance of outreach actions in promoting equity and in integrating education and healthcare services within the community, reinforcing ethical and humanizing competencies.

**Final Considerations:** The study confirms that participatory health education is an effective tool for social empowerment, combined prevention, and the reduction of territorial inequities, recommending the expansion of community-based and technological strategies to achieve broader reach.

**Keywords:** Health Education. Sexually Transmitted Disease. HIV Seropositivity.

#### **RESUMO**

**Introdução:** O estudo "Rota do Diagnóstico: Mapeamento dos Serviços Locais e Intervenções de Educação em Saúde para Soropositivos" aborda os desafios contemporâneos do enfrentamento ao HIV/AIDS no Brasil, com foco na realidade epidemiológica de Manaus-AM, evidencia o crescimento dos casos na região Norte e as desigualdades estruturais que dificultam o acesso à testagem e tratamento, ressaltando o papel do estigma, da discriminação e das vulnerabilidades sociais;

**Objetivo:** central foi mapear os serviços de saúde voltados ao diagnóstico e acompanhamento de pessoas que vivem com HIV e desenvolver ações de educação em saúde para prevenção e fortalecimento do autocuidado;

**Metodologia:** de natureza interventiva e caráter educativo, foi aplicada durante evento público em Manaus, seguindo o delineamento PICOS e integrando práticas dialógicas, acessíveis e inclusivas;

**Resultados:** demonstraram a abordagem de 200 participantes e a identificação de desigualdade na distribuição dos serviços, concentrados em áreas centrais. As intervenções educativas ampliaram o conhecimento da população, reduziram estigmas e reforçaram o vínculo entre comunidade e serviços de saúde;



**Discussão:** destaca a relevância das ações extensionistas na promoção da equidade e na integração ensino, serviço na comunidade, fortalecendo competências éticas e humanizadoras:

**Considerações finais:** o estudo confirma que a educação em saúde participativa é instrumento eficaz para o empoderamento social, a prevenção combinada e a redução das iniquidades territoriais, recomendando a expansão de estratégias comunitárias e tecnológicas para alcance ampliado.

**Palavras-chave:** Educação em Saúde. Doença Sexualmente Transmissível. Soropositividade para HIV.

## **RESUMEN**

**Introducción:** El estudio "Ruta del Diagnóstico: Mapeamiento de los Servicios Locales e Intervenciones de Educación en Salud para Personas Seropositivas" aborda los desafíos contemporáneos en el enfrentamiento al VIH/SIDA en Brasil, con foco en la realidad epidemiológica de Manaus-AM. Evidencia el aumento de casos en la región Norte y las desigualdades estructurales que dificultan el acceso a la prueba y al tratamiento, resaltando el papel del estigma, la discriminación y las vulnerabilidades sociales.

**Objetivo:** El objetivo central fue mapear los servicios de salud destinados al diagnóstico y seguimiento de las personas que viven con VIH y desarrollar acciones de educación en salud para la prevención y el fortalecimiento del autocuidado.

**Metodología:** De naturaleza interventiva y carácter educativo, se aplicó durante un evento público en Manaus, siguiendo el marco PICOS e integrando prácticas dialógicas, accesibles e inclusivas.

**Resultados:** Los resultados mostraron el abordaje de 200 participantes y la identificación de desigualdades en la distribución de los servicios, concentrados en áreas centrales. Las intervenciones educativas ampliaron el conocimiento de la población, redujeron estigmas y reforzaron el vínculo entre la comunidad y los servicios de salud.

**Discusión:** Destaca la relevancia de las acciones de extensión en la promoción de la equidad y en la integración entre enseñanza y servicios en la comunidad, fortaleciendo competencias éticas y humanizadoras.

**Consideraciones finales:** El estudio confirma que la educación en salud participativa es una herramienta eficaz para el empoderamiento social, la prevención combinada y la reducción de inequidades territoriales, recomendando la expansión de estrategias comunitarias y tecnológicas para un mayor alcance.

**Palabras clave:** Educación en Salud. Enfermedad de Transmisión Sexual. Seropositividad para VIH.



## 1 INTRODUCTION

In recent decades, Brazil has been facing important challenges in the HIV/AIDS epidemic, with significant changes in its epidemiological profile between 2020 and 2025. In 2023, 46,495 new HIV infections were reported, representing an increase of 4.5% compared to 2022, while the AIDS mortality rate fell to 3.9 deaths per 100 thousand inhabitants, the lowest since 2013. Approximately 70.7% of the notifications occurred in men, with a ratio of 2.7 male cases for each female. The black or brown population accounted for 63.2% of the cases and men who have sex with men (MSM) concentrated 53.6% of the infections, evidencing the vulnerability of specific groups (Brasil, 2023).

The age distribution reveals that 37.1% of notifications in 2023 occurred between 20 and 29 years of age, while the 25 to 34 age group concentrated about 34% of AIDS diagnoses. Regional inequalities persist: the highest detection rates per 100 thousand inhabitants were recorded in the South (21.6%), followed by the North (21.5%), Central-West (16.1%), Northeast (13.6%) and Southeast (12.2%). These data reflect structural inequalities, including unequal access to health services, socioeconomic inequality, and weaknesses in preventive strategies (AGÊNCIA BRASIL, 2023).

The current epidemiological profile reinforces that the epidemic remains concentrated in young, black, low-income and MSM populations, historically targets of stigma and discrimination. These factors compromise access to prevention methods, early diagnosis, and adherence to treatment. Structural racism, gender inequality, and misinformation aggravate barriers, requiring intersectoral public policies and educational actions adapted to specific cultural and social contexts (FUNDAÇÃO PERSEU ABRAMO, 2023).

In Amazonas, there was a 7.61% growth in HIV cases in 2024 compared to 2023, according to the HIV/SINAN/SIM Epidemiological Panel (FVS, 2025). This increase is influenced by socioeconomic inequalities, low primary care coverage, geographic barriers, and logistical difficulties in riverside areas. The capital Manaus concentrates most of the notifications, which requires more assertive local strategies, with preventive actions in public spaces with high circulation and specific campaigns for key populations (Ramos et al., 2023).

In 2023, Manaus had an HIV detection rate of 63.6 cases per 100 thousand inhabitants, almost three times higher than the national average. The male predominance was remarkable, with a ratio of 3.4 men diagnosed for each woman. Among the new cases of AIDS, 57.9% occurred in adults aged 20 to 39 years, confirming that sexual transmission remains more intense in young and sexually active adults, reinforcing the need for combined prevention strategies (Xavier, 2025).



As for the distribution by gender and ethnicity, in 2024, 68% of cases in Manaus occurred in men and 32% in women. In addition, about 40% of sexually transmitted infections occurred in MSM, followed by transgender people and sex workers, groups that face significant barriers to accessing health and coping with stigma (SIM/SINAN/FVS, 2025; ACRÍTICA, 2023).

A study with trans women and transvestites in Manaus between 2020 and 2021 mapped 339 participants, of which 43.4% lived in peripheral areas with high social vulnerability. Seropositivity was more prevalent between 38 and 58 years of age, associated with a history of sex work and complete high school. These findings indicate overlapping socioeconomic and gender vulnerabilities, evidencing the need for inclusive and humanized approaches (Bassichetto et al., 2024).

Stigma and discrimination are still central barriers to the response to the epidemic, impacting everything from self-care to the search for health services. Research shows that educational campaigns in public spaces, when culturally sensitive and accessible, can reduce prejudice, expand testing, and increase adherence to prevention measures, including condoms, PrEP, and PEP (LI et al., 2022; WHO, 2021).

Campaigns carried out in areas of high circulation such as squares, fairs, transport terminals and cultural events have the potential to reach diverse populations, including those who do not regularly access health services. Such actions allow direct dialogue, delivery of inputs and dissemination of correct information on prevention, diagnosis and treatment, strengthening community bonding and co-responsibility in care (UNAIDS, 2023).

In this context, investing in HIV education campaigns in public spaces is not only a health strategy, but also an act of collective care. By articulating evidence-based information with accessible language, these actions contribute to breaking the cycle of transmission, reducing stigma, and promoting health equity, aligning with the global goals of eradicating AIDS as a public health threat by 2030 (WHO, 2023; UNAIDS, 2023).

Despite the significant advances made in recent decades, especially with the expansion of early diagnosis and the guarantee of free access to antiretroviral therapy by the Unified Health System (SUS), the fight against HIV/AIDS is still marked by structural and social challenges. The stigma and discrimination associated with infection remain significant barriers, negatively impacting adherence to prevention strategies, the time to perform testing, and the continuity of clinical follow-up. This scenario contributes to delays in diagnosis, treatment abandonment, and worsening of the clinical condition of people living with HIV/AIDS (Greco; Santos, 2017; Wedge et al., 2020).



## **2 THEORETICAL FOUNDATION**

## 2.1 EPIDEMIOLOGICAL CONTEXT AND BARRIERS TO ACCESS TO HIV DIAGNOSIS

HIV/AIDS remains a major global and national public health problem. In Brazil, data from the HIV/AIDS Epidemiological Bulletin 2023 indicate that, between 2022 and 2023, there were 46,495 new infections, with a predominance in men (70.7%), 53.6% of which were among men who have sex with men (MSM). Detection rates show regional heterogeneity, with a higher concentration in the South and North of the country. In Amazonas, for example, the detection rate in 2023 reached 63.6 cases per 100 thousand inhabitants, almost three times above the national average (MINISTRY OF HEALTH, 2023; UNAIDS, 2023).

The epidemiological disparities observed in Brazil reflect socioeconomic and structural inequalities. Black, indigenous, LGBTQIA+, people deprived of liberty, and sex workers face increased risks of infection and barriers to access to prevention and diagnosis. Social vulnerability, added to structural racism and gender inequality, enhances the impact of the epidemic on these communities. Studies indicate that the social exclusion and marginalization of these populations directly influence the rates of testing and treatment (CARVALHO et al., 2022; WHO, 2023).

Stigma and discrimination remain significant obstacles to early diagnosis. Many individuals avoid taking the test for fear of reprisals, social exclusion, or prejudice in health services. In addition, the perpetuation of myths and misinformation about HIV transmission feeds cultural barriers that delay the search for specialized care. The literature reinforces that the reduction of stigma is essential to expand diagnostic coverage (IL et al., 2022; UNAIDS, 2023).

Geographical barriers also play a relevant role, especially in states in the North region, where the large territorial extension and the difficulty of moving between rural, riverside areas and urban centers make access to health services difficult. In these locations, the limitation of specialized units and the scarcity of trained professionals contribute to late diagnosis and fragmentation of care (OLIVEIRA et al., 2024; FIOCRUZ, 2023).

Rapid testing has proven to be a strategic tool in facing the epidemic, as it allows diagnosis and immediate start of treatment, reducing the chain of transmission. In Brazil, the incorporation of this resource by the Unified Health System (SUS) has expanded access, especially in Primary Health Care (PHC) units and in Testing and Counseling Centers (CTA). However, its effectiveness depends on articulated actions of active search, reception, and continuous monitoring (MINISTRY OF HEALTH, 2023; PAHO, 2022).

Current public policies, such as the National Plan for STI/HIV/AIDS, provide for integrated strategies for combined prevention, early diagnosis and immediate treatment.



These guidelines are in line with the 95-95-95 targets proposed by UNAIDS, which aim to diagnose 95% of people living with HIV, provide treatment to 95% of those diagnosed, and achieve viral suppression in 95% of those treated by 2030. To achieve these goals, it is essential to strengthen integration between the different levels of care and reduce social and structural barriers (UNAIDS, 2023; WHO, 2023).

## 2.2 HEALTH EDUCATION STRATEGIES AND INTERVENTIONS AIMED AT HIV-POSITIVE PEOPLE

Health education, as a central health promotion strategy, seeks to empower individuals and communities to make informed decisions about their care and well-being. In the context of HIV/AIDS, it acts not only in the dissemination of information on prevention, but also in the promotion of autonomy and in the strengthening of adherence to antiretroviral treatment. This approach contributes to the prevention of new infections, appropriate clinical management, and the improvement of the quality of life of people living with HIV. By adopting participatory methodologies, health education favors the empowerment of patients, transforming them into protagonists of their own care (PAIVA et al., 2025; WHO, 2023).

Adherence to treatment is one of the greatest challenges faced in the management of HIV/AIDS and is directly related to health education strategies. The use of accessible languages, educational materials adapted to cultural specificities, and continuous interventions are determining factors for therapeutic success. Qualified information, when associated with humanized follow-up, strengthens the bond between users and health services, contributing to retention in care and the reduction of viral load. Such strategies should be planned considering the social context and the individual barriers faced by patients (Brasil, 2023; UNAIDS, 2023).

Among the most effective methodologies are mass educational campaigns, community programs and psychosocial support groups. These spaces allow the exchange of experiences, the reduction of social isolation and the collective confrontation of the stigma associated with HIV. The use of digital technologies, such as health apps and messaging platforms, expands the reach of actions, offering personalized information and continuous support. The integration of online and face-to-face resources enhances the results, reaching different user profiles (Garcia; Souza, 2021; PAHO, 2022).

In the Brazilian scenario, community workshops have proven effective in addressing combined prevention and promoting treatment adherence. These workshops, held in health units and community spaces, encourage open dialogue about sexuality, self-care and coping with discrimination. In addition, they enable the strengthening of support networks and the



construction of collective solutions to the difficulties faced in the daily lives of people living with HIV/AIDS. These practices, recognized by the Ministry of Health, have been replicated in different regions of the country (MINISTRY OF HEALTH, 2023; FIO CRUZ, 2023).

In the international context, successful experiences demonstrate that integrated health education strategies can significantly impact epidemiological indicators. In countries such as South Africa and India, community-based programs focused on stigma reduction and human rights education have resulted in increased demand for testing and treatment. These initiatives, by combining information, psychosocial support, and facilitated access to services, reinforce the importance of intersectoral actions in the response to HIV/AIDS (UNAIDS, 2022; Naco, 2023).

Stigma reduction is a cross-cutting element in all health education strategies for HIV-positive people. Campaigns that address HIV in an inclusive way, associated with social protection policies, contribute to changing negative perceptions and promoting safe environments. The approach must be based on human rights, recognizing the specificities of gender, race, and sexual orientation, in order to ensure equity in care. Thus, health education is an essential tool to transform not only knowledge, but also the social and institutional relations that impact the lives of people with HIV/AIDS (UNAIDS; UNDP, 2023; READ et al., 2022).

# 2.3 HEALTH EDUCATION STRATEGIES AND INTERVENTIONS AIMED AT SEROPOSITIVE PEOPLE

Health education is a fundamental tool to promote the autonomy of people living with HIV/AIDS, strengthening adherence to treatment and preventing new infections. This approach goes beyond the simple transmission of information, encompassing the development of skills for making conscious decisions about one's own health. The objective is to empower the individual to become a protagonist in their care process, reducing vulnerabilities and improving quality of life. To this end, it is essential that actions are culturally sensitive and adapted to the local reality, considering social and economic factors that influence access to care (Brasil, 2022; WHO, 2021).

Among the main health education methodologies, massive educational campaigns stand out, which use means of communication such as radio, television, and social networks to expand the reach of preventive messages. Support groups and conversation circles also play a strategic role, providing safe spaces for exchanging experiences and strengthening community bonds. These interventions should be interactive and participatory, allowing users to express doubts and difficulties, thus strengthening trust and adherence to treatment



The use of digital technologies has proven to be a promising tool in communicating with people living with HIV. Health apps, teleservice platforms, and social networks allow you to disseminate up-to-date information, send reminders about medication, and facilitate contact with health professionals. These solutions can also contribute to overcoming geographical barriers and reducing travel costs, favoring continuous patient monitoring, especially in regions with less face-to-face services (LI et al., 2022; PAHO, 2022).

Community workshops represent another relevant strategy, as they promote health education in a practical and contextualized way. In these activities, topics such as combined prevention, correct use of condoms, adherence to treatment and coping with stigma are worked on. The participatory methodology stimulates community protagonism, strengthens support networks and creates environments conducive to the exchange of knowledge, considering the previous knowledge and experiences of the people involved (Garcia; Souza, 2021; PAHO, 2023).

Successful experiences in Brazil demonstrate that well-structured community interventions, integrated with health services and articulated with public policies, can reduce the community viral load and improve epidemiological indicators. Projects that combine rapid testing, counseling, and immediate referral to treatment have shown a positive impact on patient retention and viral suppression, especially among key populations. These results reinforce the importance of decentralized and territorialized actions (Santos; Grangeiro; Couto, 2022; UNAIDS, 2023).

On the international stage, countries such as South Africa and Thailand have made significant progress through peer-led community programs, in which people living with HIV act as educators and group facilitators. This strategy has been shown to be effective in improving adherence to antiretroviral therapy, reducing stigma, and increasing demand for health services. Such models reinforce the need for integration between community interventions, health systems and national policies, adapting successful practices to the Brazilian context (UNAIDS; WHO, 2023; SMITH et al., 2021).

## **3 MATERIALS AND METHODS**

This extension project has an interventional, descriptive and educational nature, developed in a structured way during a public event held in an open space in the center of the city of Manaus-AM. The action was planned to take place in a previously defined location, aiming at mapping the services available for diagnosis and monitoring of people living with HIV, combined with educational activities for prevention and promotion of self-care.



The methodology adopted followed the principles of participatory health education, integrating theoretical and practical orientations through dialogical approaches, accessible resources, and inclusive language. The purpose was to expand access to qualified information, encourage early diagnosis and strengthen the link between the community and health services.

#### 3.1 DESIGN ACCORDING TO THE PICOS METHODOLOGY

P (Population): Adults (≥18 years old) present at the public event in the city of Manaus-AM (Step by Step), who voluntarily accepted to participate in the educational action.

I (Intervention): Mapping of services that offer HIV diagnosis and treatment, associated with an educational approach with the delivery of a preventive kit.

C (Comparison): Not applicable, as there was no control group. The evaluation parameter was based on the number of participants who accepted the approach and received the kits.

O (Outcome): Estimated population reach of approximately 200 participants, focusing on increasing knowledge about prevention measures and disseminating available health services.

S (Context/Setting): Public event held in an open space in the center of the city of Manaus-AM, on September 5, 2025.

#### 3.2 ENFORCEMENT PROCEDURES

The execution was preceded by a stage of planning and organization of the executing team, composed of professors, advisors and extension students.

The materials and supplies necessary for the activity were defined, including preventive kits, information folders and support resources for the community approach.

The planning also included the training of extension workers, ensuring the standardization of guidelines and the ethical conduct of activities.

### 3.3 APPROACH DURING THE EVENT

On the day of the action, interested participants (≥18 years old) were approached, with a brief explanation of the objective and importance of the initiative.

Then, the preventive kit was delivered, consisting of male condoms, lubricating gel and informative material on HIV, combined prevention and reference places for testing and follow-up.



## 3.4 LOGGING AND MONITORING

The activity was recorded by counting the number of participants approached, using the control of the kits distributed and random notes on registration forms to compose the final report.

The data collected will support the quantitative and qualitative evaluation of the action, allowing to estimate the scope of the activity and guide future educational interventions.

#### **4 RESULTS AND DISCUSSION**

The execution of the extension project "Rota do Diagnóstico" enabled the development of integrated actions for the mapping of health services and health education aimed at the population of Manaus, with a focus on combating HIV/AIDS. The project was structured based on a dialogic and participatory health education approach, based on direct guidance, in which the extension workers established interpersonal contact with the participants, promoting active listening, informative dialogue and joint construction of knowledge about prevention, self-care and early diagnosis.

The action took place during the public event "Passo a Paço", held in the center of the city of Manaus, on September 6, 2025, between 6 pm and 10 pm, a period in which a large flow of people was concentrated, favoring the visibility and social reach of the intervention.

During the event, approximately 200 participants were attended, corresponding to 75% men and 25% women, a proportion close to that estimated for the action. The community showed high receptivity, demonstrating interest, involvement and active participation in the educational activities carried out, which highlights the social relevance and preventive impact of the project on health promotion and collective awareness.

As a central part of the intervention, the assembly and delivery of educational kits was carried out, consisting of male condoms, lubricating gel and an informative folder prepared by the project team. The educational folder was produced with accessible language and illustrated content, addressing forms of HIV transmission, combined prevention measures, correct use of condoms and testing and follow-up locations.

This material was part of the mapping of local health services, a fundamental stage of the project, which aimed to organize and disseminate the service points available to the population of Manaus. The survey identified Basic Health Units (UBS), Testing and Counseling Centers (CTA) and Specialized Assistance Services (SAE) active in the capital, highlighting their locations, coverage areas and service opening hours.

The delivery of preventive kits was configured as an effective pedagogical and communicative strategy, enabling a direct educational approach, open dialogue about safe



sexual practices and encouragement of testing. Personal contact with the population allowed the identification of recurrent doubts, misconceptions about HIV and reports of difficulty in accessing specialized services, corroborating studies that point to the persistence of cultural, structural and geographical barriers in coping with the epidemic (IL et al., 2022; Brazil, 2023).

The territorial mapping carried out by the team revealed an unequal distribution of health services, with a greater concentration in central areas and lower coverage in peripheral and riverside areas. This asymmetry reinforces the access limitations faced by vulnerable populations and the need to decentralize actions and strengthen Primary Health Care, as recommended by the Pan American Health Organization (PAHO, 2022) and the Ministry of Health (2023).

The educational actions demonstrated a positive impact on the expansion of knowledge and the reduction of HIV-related stigma. Many participants reported never having received direct guidance on pre- and post-exposure prophylaxis (PrEP and PEP), combination prevention, and specialized care settings. The participatory and humanized approach used by the extension workers favored community engagement, stimulating critical reflections on prejudice, self-care, and the right to health (Garcia and Souza 2021).

The analysis of the results confirms that university extension actions are essential tools to bring the university closer to the community, transforming scientific knowledge into socially relevant practice. The involvement of Biomedicine students contributed significantly to the development of ethical, communicational and technical-scientific skills, in addition to strengthening an empathetic, critical education focused on health promotion (Hernandes et al. 2024),

In general, the project achieved its objectives by mapping the available health services, developing accessible educational material and carrying out health education actions through direct guidance and the delivery of preventive kits. Even so, the results point to the need for continuity and expansion of actions, especially in regions of difficult access, in addition to the permanent articulation between educational institutions, public managers and the community.

## **5 FINAL CONSIDERATIONS**

The extension project "Rota do Diagnóstico" obtained significant results by promoting the mapping of health services and the implementation of health education actions aimed at the prevention of HIV/AIDS in the municipality of Manaus (AM). The intervention, based on the principles of dialogic and participatory education in health, confirmed the hypothesis that



accessible information, combined with direct dialogue with the community, constitutes an effective mechanism for expanding knowledge, reducing stigma and strengthening self-care.

The analysis of the data obtained showed that the educational approach based on direct guidance and qualified listening favored adherence to preventive practices and stimulated the active search for testing and follow-up services, strengthening the bond between users and the health care network. This dynamic corroborates the findings that highlight the effectiveness of community educational interventions as strategies for social transformation and sexual health promotion.

The territorial mapping carried out made it possible to identify and systematize the Basic Health Units (UBS), Testing and Counseling Centers (CTA) and Specialized Care Services (SAE) that offer care to people living with HIV/AIDS in the capital. The spatial analysis of these points showed inequalities in the distribution of services, with greater concentration in central areas and coverage deficit in peripheral and riverside areas, reflecting the challenges of equity and accessibility.

The integration between the mapping of services and the delivery of educational kits consisting of male condoms, lubricating gel and an informative folder with data on places and hours of service was configured as a pedagogical and social empowerment instrument. This strategy not only disseminated information, but also promoted individual protagonism in prevention and health care, by allowing participants to identify the care points closest to their homes and times compatible with their routine.

From the methodological point of view, the project reaffirmed the importance of health education as an emancipatory practice, capable of articulating technical-scientific knowledge and popular knowledge. Direct contact with the population, associated with accessible language and active listening, allowed us to understand local vulnerabilities, demystify prejudices and encourage preventive behavior in a sustainable way.

As a limitation observed, the restricted scope of actions in regions of difficult access is highlighted, especially in riverside and peripheral areas, where the deficit of infrastructure and transportation limits the effectiveness of public prevention policies.

Therefore, it is recommended, for future projects and studies, the continuity and expansion of interventions with the use of digital technologies and community communication strategies such as interactive mapping applications, social media campaigns and partnerships with local radio stations in order to expand the reach of educational actions and strengthen the continuous engagement of the population.



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