

Social Determinant Factors on HIV/AIDS Prevention in Marginalized Communities: Systematic Literature Review

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Abstract

Human immunodeficiency virus (HIV) is an infection that attacks the body's immune system, specifically the white blood cells called CD4 cells. HIV destroys these CD4 cells, weakening a person's immunity against opportunistic infections, such as tuberculosis and fungal infections, severe bacterial infections, and some cancers. The purpose of this systematic review is to evaluate the current social determinant factors of HIV/AIDS prevention in marginalized communities. The study employs the PRISMA Method to systematically review HIV/AIDS prevention articles from databases PUBMED, BMC, and Google Scholar. The review includes search, screening, data extraction, and analysis, with 40 papers acquired and a selection procedure to meet inclusion and exclusion criteria. This study finds a need for a comprehensive approach to combat the HIV epidemic, including addressing socioeconomic determinants like poverty, stigma, and healthcare access. Collaboration between policymakers, healthcare providers, and community members is crucial for developing effective prevention and treatment strategies.

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Introduction

HIV is a virus that weakens the human immune system, especially in CD4 cells, and can cause infections such as tuberculosis, fungal infections, and some cancers. The World Health Organization (WHO) aims to reduce HIV infections and deaths from 680,000 in 2020 to less than 240,000 in 2030. To that end, WHO recommends that everyone at risk of HIV infection access comprehensive HIV prevention and treatment services (WHO, 2024). Central Asia has seen a significant increase in HIV/AIDS incidence and prevalence among women, while men in high-income Asia Pacific have similar patterns. Women aged 70-74 years have the highest incidence and prevalence, while men in low social development index regions have the highest mortality and DALYs. Unsafe sex caused 15,381.16 deaths. The burden of HIV/AIDS varies by geography, age, and sex among older adults, (Du et al., 2024). HIV prevalence in the Asia Pacific region by 2024 is influenced by multiple factors, including reactivation of latent infections such as toxoplasmosis in people living with HIV. (Lee et al., 2024).

One of the main drivers of the AIDS epidemic is gender inequality. The same disadvantages that contribute to high HIV prevalence among women can also hinder their engagement with ART. Women are more likely than men to be uneducated, unemployed, and poor, which makes them more likely to engage in transactional sex. (Ziblim et al., 2024). In other cases, high-income households have better knowledge about HIV/AIDS, but women often face negative attitudes and stigma. Wealthier and urban populations have higher coverage of HIV/AIDS services, while disadvantaged groups face stigma from society due to different lifestyles. (Endalamaw et al., 2024).

The government used formal and informal channels to communicate the testing and treatment policy changes to all health care providers, but there was little awareness among frontline providers. Informal communication, such as verbal and text instructions, was ineffective. Top-down stakeholder engagement, limited health worker training, and poor funding negatively impacted implementation. Acceptance was affected by positive provider perceptions, limited ownership, and resistance from patients who were not ready for treatment. (Simoya et al., 2023).

To reduce transmission, it is critical to improve access to care and address existing risk factors. More research is needed to understand the impact of HIV in older adults and develop targeted prevention strategies. Educational campaigns, safe sex practices, routine testing, and medication adherence can help prevent new infections and improve health outcomes. The purpose of this systematic review was to evaluate the current literature on social determinants of HIV/AIDS prevention in marginalized communities.

Method

This study uses an article review to write a systematic review, starting from study search, screening, data extraction, and data analysis. A systematic review is one of the strategies that uses previous reviews, research, structured assessment, classification, and categorization of evidence-based data (Pullin and Stewart 2006). This study uses the PRISMA Method to conduct literature research. Articles are collected from PubMed, BMC, and Google Scholar databases. The keywords include "Socioeconomic, Education and Awareness, Social Support for Individuals Living with HIV/AIDS, Access to Health Care Facilities, HIV/AIDS Prevention." The articles obtained are 40 papers, and the selection procedure will be carried out to meet the inclusion and exclusion criteria

Inclusion and Exclusion

The criteria use the PICOS framework, as follows:

- The population to be analyzed is determined by the title of the systematic review.
- Intervention is an action to manage individual or community cases and an explanation of the management of the study according to the title specified in the systematic review.
- Comparison is an intervention or other management used as a comparison if no control group can be used in the selected study.
- Output is the result or outcome obtained in previous studies that follow the theme specified in the systematic review.
- Study design is the research design used in the article to be reviewed.

Table 1

Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Population	The international article is related to the title The Strategy of HIV/AIDS Prevention.	The international article is not related to the strategy of HIV/AIDS Prevention.
Intervention	Do not use Intervention	Do not use Intervention
Comparison	Nothing	Nothing
Outcome	Know and understand the strategy for HIV/AIDS Prevention	Do not know and understand the strategy of HIV/AIDS Prevention
Study design	All types of research publications: Open-access research article	Nothing
Publication Year	2019-2025	Before 2019
Language	English	Other Language

Article Selection

Articles were collected from three databases: PUMED, BMC, and Google Scholar. Keywords included: Socioeconomic, Education and Awareness, Social Support for Individuals Living with HIV/AIDS, Access to Health Care Facilities, HIV/AIDS Prevention. The total number of articles collected was 40. Articles were selected using the PRISMA flowchart, which identifies relevant publications based on inclusion and exclusion criteria.

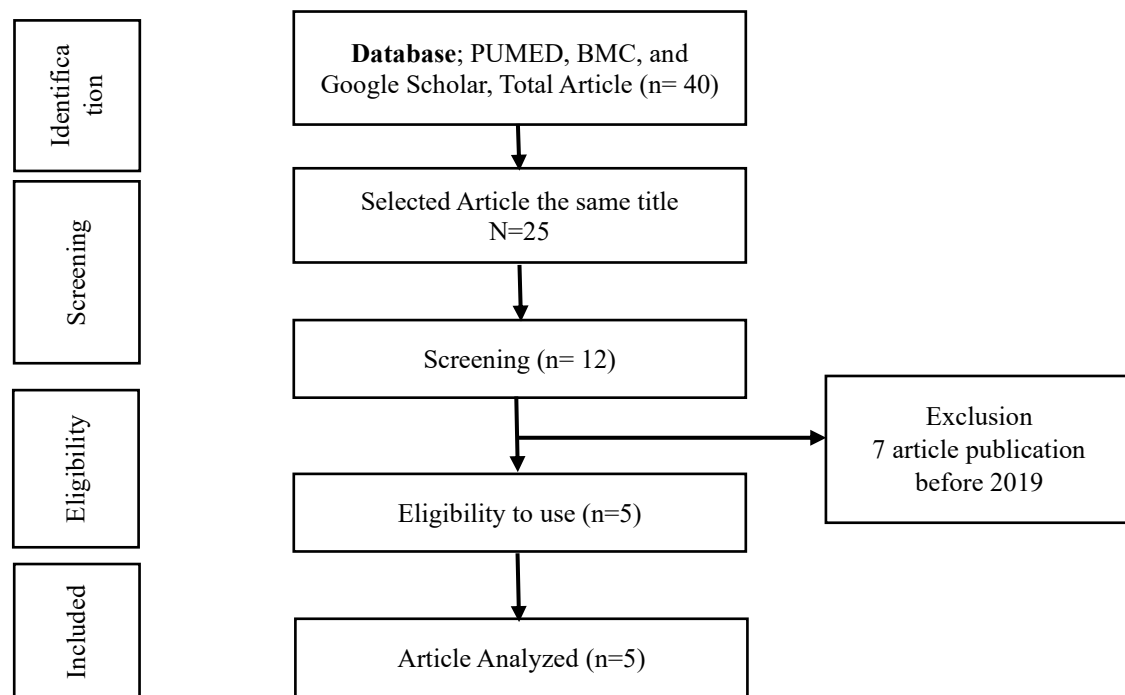


Figure 1. Articles review flowchart

Relevance of Study

Research relevance involves searching for articles using databases to identify the quality of the writing produced. A systematic method for collecting, critically evaluating, integrating, and presenting data from various studies on the research subject of interest, resulting in a broader and more accurate understanding.

Quality of study

The articles were screened to determine which articles met the inclusion and exclusion criteria. The articles were collected after collecting 40 English-language articles from 2019 to 2025 from the PubMed, BMC, and Google Scholar databases. After screening using the PRISMA flowchart, six articles were selected for synthesis or additional analysis.

Technique Analysis

Analysis was carried out on articles that met the inclusion criteria (2019-2025) to conclude.

Results and Discussion

1. Result

Characteristics of the study

A systematic review was conducted by searching for information or articles by using or working with online technology, such as opening several internet sites as data sources. Article searches were conducted using PubMed, BMC, and Google Scholar databases. Once the articles were collected, they were examined using the PRISMA diagram to determine relevant articles for the next stage.

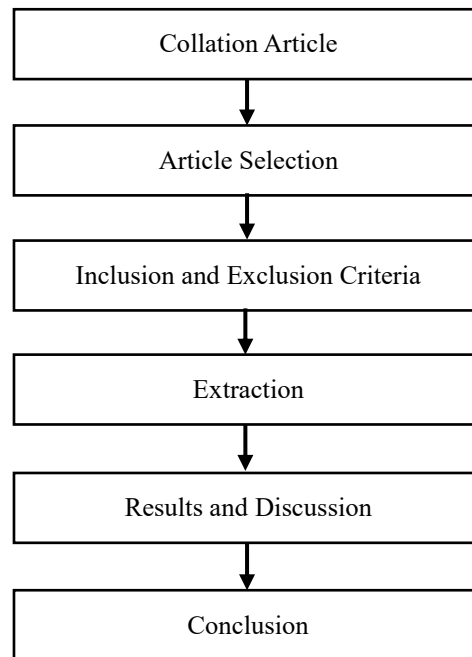


Figure 2. The characteristics of the study

The search process

The systematic review offers a comprehensive evaluation of various research studies selected based on the HIV/AIDS Prevention Strategy. Searching for articles was carried out from January to March 2025, obtaining 40 articles.

Data extraction

The information articles collected between 2019 to 2025 consist of researchers, years, titles, techniques, and findings. This data extraction is important in producing articles that can be evaluated and developed in the future. The data is entered into the data extraction form, which will be displayed in the following table format:

Table 1
Data extraction

No	Author and Year	Article title	Method	Results
1	(Huang et al., 2024)	Social support, self-efficacy, self-esteem, and self-management behaviors among people living with HIV/AIDS in China: a structural equation modeling analysis	a structural equation modeling analysis	These findings contribute to our understanding of the psychosocial dynamics influencing self-management behavior in Chinese PLWHA and have broader implications for populations in other countries. Targeted interventions that enhance social support, self-efficacy, and self-esteem could be applied in various cultural contexts to improve self-management practices among PLWHA globally.
2	(Emmanuel, Godwin et al., 2025)	Improving HIV Prevention for Key Populations in Nigeria: Insights on Access, Barriers, Stigma, and Service Utilization	A cross-sectional study	HIV prevalence among KPs was 10.8%, with higher rates in MSM and PWIDs. Willingness to access preventive services was 57.7%, influenced by geographical location and sexual practices. HIV self-testing uptake was 95.9%, while PrEP uptake was 68.0%. Major barriers included stigma and limited-service knowledge.

3	(Emmanuel, 2024)	The Impact of Socioeconomic Factors on HIV Prevalence and Treatment Accessibility in Nigeria: A Comprehensive Review	The methodology used in this article involved a review and synthesis of existing literature.	Addressing these factors required targeted interventions, such as strengthening social protection programs, enhancing education, promoting gender equality, improving healthcare infrastructure, and ensuring sustainable funding. These efforts were essential for reducing HIV prevalence and improving treatment outcomes in Nigeria.
4	(Alageel et al., 2024)	Public perceptions of HIV/AIDS awareness in the Gulf Cooperation Council countries: a qualitative study	Methods: We conducted a qualitative study using semi-structured interviews	Results: All participants emphasized the need to raise awareness about HIV in the GCC, believing that recent societal changes and increased openness justify the need for sexual health education. They stressed the importance of delivering clear and assertive health education to raise awareness while minimizing the reliance on fear-based messaging. However, some participants expressed concerns about promoting condom use and HIV treatment, fearing it might encourage extramarital sex. Additionally, the lack of a religious component in the awareness messages raised concerns among some participants, as they believed adhering to religious practices was the best protection against HIV.
5	(Seifu et al., 2024)	Comprehensive knowledge about HIV/AIDS and associated factors among reproductive age women in Liberia	Using secondary data analysis of the 2019–2020 Liberia Demographic and Health Surveys (LDHS)	The results showed that 33.5% of Liberian women aged 15 to 49 had full HIV/AIDS knowledge. Women's age, education, and distance to a health center were all positively linked with complete HIV/AIDS knowledge among Liberian reproductive age women. In contrast, community poverty was shown to be inversely related to thorough knowledge of HIV/AIDS.

Synthesis of data

A Systematic Review was synthesized using the narrative method by grouping similar extracted data according to the measured results to answer the objectives.

2. Discussion
Education and Awareness

The study from (Terefe et al., 2024) The study found that 33.5% of Liberian women aged 15 to 49 had full HIV/AIDS knowledge. Factors such as age, education, and distance to health centers positively correlated with HIV knowledge among reproductive-age women. Community poverty was found to be inversely related to HIV knowledge. Effective HIV prevention in disadvantaged populations relies on education and awareness initiatives, which can clarify myths, promote safer sexual behaviors, and encourage frequent testing. Access to affordable and culturally relevant healthcare treatments is also crucial. The study's focus on Liberian women aged 15-49 limits its generalizability to other demographics or regions. It also does not explore other structural solutions, such as policy change or economic empowerment.

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The study from (Alageel et al., 2024), found that all participants emphasized the need to raise awareness about HIV in the GCC, believing that recent societal changes and increased openness justify the need for sexual health education. They stressed the importance of delivering clear and assertive health education to raise awareness while minimizing the reliance on fear-based messaging. However, some participants expressed concerns about promoting condom use and HIV treatment, fearing it might encourage extramarital sex. Additionally, the lack of a religious component in the awareness messages raised concerns among some participants, as they believed adhering to religious practices was the best protection against HIV. The study highlights the challenges of HIV/AIDS literacy, including social stigma, limited information access, and limited resources. Efforts to improve literacy include mass media campaigns, school programs, and health worker training. However, the effectiveness depends on community acceptance and support. A coordinated approach involving government, non-governmental organizations, and local communities is needed. (Dimara et al., 2024).

Public health interventions can have a greater impact on HIV prevention efforts if they use holistic strategies that target socioeconomic determinants of health and the specific needs of disadvantaged communities. Community-based groups and grassroots initiatives play a critical role in reaching disadvantaged populations and providing them with the resources they need to protect themselves from HIV.

Social Support for individuals living with HIV/AIDS

The study from (Huang et al., 2024)The study explores the psychosocial processes influencing self-management behaviors in Chinese people with mental health issues (PLWH) and suggests that targeted treatments can improve these behaviors in various cultural contexts. However, the effectiveness of these interventions may vary based on economic, healthcare, and social factors. The study's credibility and breadth are also questioned due to its lack of limitations.

Despite advancements in HIV/AIDS treatment, stigma and discrimination continue to be serious public health concerns. Individuals experience stigma and prejudice, affecting their health outcomes and access to care. This might have major public health implications. To combat this, it is necessary to bridge gaps in program expertise and integrate stigma measures, psychological and social support, into national HIV programs. (Babel et al., 2021).

Individuals living with HIV require complete support services to ensure holistic therapy. Marginalized groups may get access to HIV prevention services through stigma reduction projects implemented in several contexts to address HIV's disproportionate effect and significant gaps in the treatment continuum. According to studies, stigma remains a significant barrier to HIV prevention and treatment, impacting both HIV-negative and HIV-positive individuals, particularly males who have sex with men. Stigma, particularly internalized stigma, and prejudice in health institutions, can limit access to biological therapies like Treatment as Prevention, discouraging people from seeking information, testing, care, and support (Riddhi et al., 2021). These services might include mental health counseling, support groups, case management, and medication adherence assistance. Support programs that address the social and emotional needs of HIV patients can improve their overall health and quality of life. Furthermore, support programs may help people manage the complexities of living with a chronic condition and motivate them to take control of their health.

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The study found that the psychosocial processes influencing self-management behaviors in people with mental health issues and suggests targeted treatments can improve these behaviors. However, the effectiveness of these interventions may vary based on economic, healthcare, and social factors. Despite advancements in HIV/AIDS treatment, stigma and discrimination remain significant public health concerns. To combat this, bridging gaps in program expertise and integrating stigma measures, psychological and social support, into national HIV programs is necessary. Support programs can improve overall health and quality of life for HIV patients.

Socio-economic factors

According to the study (Emmanuel K., 2024), addressing these factors requires targeted interventions, such as strengthening social protection programs, enhancing education, promoting gender equality, improving healthcare infrastructure, and ensuring sustainable funding. These efforts were essential for reducing HIV prevalence and improving treatment outcomes in Nigeria. Addressing these issues requires efforts such as strengthening social security programs, improving education, promoting gender equality, improving health care facilities, and ensuring long-term funding. These efforts were critical to lowering HIV prevalence and increasing treatment results in Nigeria. The study provides no specific numerical or statistical evidence to back up its claims. While treatments are extensive and useful, they may lack specificity and efficient implementation methods. The study's focus on Nigeria limits its applicability to other countries with various medical systems and socioeconomic backgrounds. The study does not address potential barriers to implementing the intervention, such as opposition from lawmakers or budgetary limitations.

Socio-economic factors impact access to HIV prevention services for marginalized communities by influencing HIV prevalence, risk perception, stigma, and access to information. The poor have higher HIV prevalence rates, higher risk perception, and limited access to HIV/AIDS information compared to those in middle and upper socioeconomic groups. Women in marginalized communities also face higher stigma and lower access to services (Negussie, 2013). Income levels can affect the availability of HIV prevention services for marginalized populations by influencing their access to healthcare resources and services. Lower income levels may limit individuals' ability to afford HIV prevention services, such as testing and condoms, which can lead to disparities in service availability for marginalized populations. (Brawner et al., 2022). However, combination HIV prevention programs in low-income countries have been shown to empower marginalized populations to demand equal rights and access to services, potentially improving their access to HIV prevention services. (Brody et al., 2019). Lower socioeconomic status is associated with longer waiting times and limited access to care, resulting in poorer health-related quality of life outcomes. Financial instability and rising healthcare costs can also hinder healthcare access among older adults in different countries. Strategies such as income supplementation and expansion of health insurance coverage have been shown to improve access to care among older adults in various countries. (McMaughan et al., 2020).

We can create an inclusive and accessible healthcare system for all older people by tackling socioeconomic obstacles and establishing policies that promote health equality. Governments, healthcare providers, and community organizations must work together to identify and address the unique needs of older persons who may encounter barriers to

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healthcare. Through our collaborative efforts, we can work toward a future in which all older people may enjoy healthy and satisfying lives. The study emphasizes the need for targeted interventions to reduce HIV prevalence and improve treatment outcomes. However, it lacks specific evidence and does not address potential barriers. Socio-economic factors, such as poverty and income, also impact access to HIV prevention services.

Access to Health Care Facilities

This study underlined the importance of addressing these components and the need for governments, healthcare providers, and communities to work together to ensure that everyone has access to healthcare. These variables can cumulatively impact a person's access to medical treatment; therefore, addressing issues at all levels is crucial to improving overall healthcare accessibility. Knowing these determinants can help shape policies and activities to increase access to healthcare for people who face difficulties, (Tzenios, 2019). The study does not explain which factors influence access to health care, making it less helpful. While it highlights the need for teamwork, it does not identify specific measures or solutions for improving healthcare accessibility. The article focuses only on healthcare access and does not discuss other critical health concerns such as quality, cost, or patient outcomes.

The motivation of participants to become HIV/AIDS counselors was influenced by many factors. Some were randomly assigned to the HIV counseling unit, others developed an interest in the job, some were motivated by a relative's status with HIV, while others were driven by witnessing poor attitudes of healthcare providers towards HIV clients. Additionally, some participants were inspired to become counselors after encountering HIV clients who lacked knowledge about HIV/AIDS and wanted to help educate and support them. (Dwomoh et al., 2024).

The study from (Obeagu, 2024), showed that one of the significant advantages of faith-based initiatives is their ability to reach vulnerable populations in a culturally compassionate manner. Religious leaders can use their influence to normalize HIV-related discussions, advocate for safe-sex practices, and offer support to individuals living with HIV. By integrating HIV education into religious settings, faith-based initiatives help bridge the gap between public health messages and local cultural values.

This study highlights the need for collaboration between governments, health service providers, and communities to improve accessibility to health services. Factors such as family status, attitudes of healthcare providers, and encounters with HIV clients may influence an individual's motivation to become a counselor. Faith-based initiatives can bridge the gap between public health messages and local cultural values, allowing them to reach vulnerable populations in a culturally compassionate way. However, the study did not provide specific actions or solutions to improve accessibility to health services. Overall, understanding these factors is critical to improving access to healthcare for all.

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Conclusion

These findings suggest that a multifaceted approach is essential to successfully reducing the HIV epidemic. While increasing funding for prevention measures is essential, the socioeconomic factors that drive HIV infection also need to be addressed. We can make substantial contributions to effectively reducing the global HIV epidemic by addressing issues such as poverty, stigma, and access to health care. Policymakers, health care providers, and community members must work together to create a comprehensive HIV prevention plan. Only a comprehensive strategy will enable us to achieve true health equity for all people with HIV. Advocacy and policy reform are essential to addressing systemic barriers and promoting inclusive care. A comprehensive plan addressing individual and structural issues is necessary for an equitable and effective health care system.

Recommendation

Further research is needed to establish the efficacy of preventive measures. Collaboration between health care providers, policymakers, and community organizations is essential to implementing these recommendations. Focusing on marginalized communities and promoting comprehensive sex education can build more inclusive environments. Advocating for increased funding and resources can help mitigate the impact on communities.

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