Scholarly Research Journal for Humanity Science & English Language,
Online ISSN 2348-3083, SJ IMPACT FACTOR 2026: 8.739,
https://www.srjis.com/issues_data/295
PEER REVIEWED, REFEREED & INDEXED JOURNAL, JUNE-JULY 2026, VOL-14/76

HEALTH LITERACY AND HIV/AIDS AWARENESS AMONG FEMALE VOCATIONAL SKILL TRAINEES: A CROSS-SECTIONAL STUDY FROM NORTH INDIA

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Paper Received On: 21 JUNE 2026

Peer Reviewed On: 25 JULY 2026

Published On: 01 AUG 2026

Abstract

Human immunodeficiency virus (HIV) is a major public-health issue with widespread impact on people despite the progress in prevention and treatment. The limited health literacy of disadvantaged women from a socio-economic perspective leads to their misbelief, delaying the health-seeking behaviour, and raising HIV vulnerability. The main purpose of vocational skill development programmes is to enhance employability and economic empowerment, but these programmes also offer an important opportunity to promote community-based health education. In India, however, there is little empirical evidence regarding women's HIV/AIDS awareness. In this backdrop, the present study was conducted to assess the HIV/AIDS awareness and health literacy among female vocational skill trainees of Jan Shikshan Sansthan, Chandigarh. Adopting a cross-sectional descriptive research design, a structured questionnaire was administered to 120 female trainees to collect primary data. The questionnaire covered multiple aspects of HIV, including transmission, disease mechanism, prevention, treatment, disease progression, diagnosis, and common misconceptions. The frequencies and percentages of descriptive statistics were used in the analysis. Researchers appraised the HIV/AIDS awareness levels of the respondents, and the results were 70.8%. A majority of the study respondents were well informed about HIV and AIDS. The knowledge was highest regarding the biological mechanism of HIV infection (76.9%) and disease progression (74.7%), whereas comparatively lower knowledge was observed regarding HIV transmission (62.2%), HIV diagnostic services (62.5%) and prevention and treatment (69.2%). Ongoing beliefs around casual transmission, mother-child transmission, and treatment vs. cure highlight significant gaps in HIV-related health literacy. According to the research, vocational training institutions can effectively integrate HIV/AIDS education along with skills development programmes. Through health literacy, interventions that reduce misconceptions, promoting preventive health behaviours, supporting the national HIV prevention strategy can support the health and empowerment of economically disadvantaged women.

Keywords: *HIV/AIDS awareness; health literacy; vocational skill development; women; HIV prevention; public health; India.*

Introduction

Human Immunodeficiency Virus (HIV) continues to pose a major global public health challenge even with remarkable progress in prevention, diagnosis and treatment. As per the World Health Organisation (WHO), an estimated 40.8 million people were reportedly living with HIV globally at the end of 2024. It also noted that 1.3 million new infections occurred during 2024. Even though AIDS-related mortality has been substantially reduced with the overall availability of ART, HIV transmission continues to be driven by inequalities in health education, social vulnerability, stigma, and limited access to preventive health care services (WHO, 2025; UNAIDS, 2024).

India has made considerable strides in controlling the HIV epidemic through the National AIDS Control Programme (NACP) that emphasizes prevention, early diagnosis, treatment, as well as community-based awareness interventions. Most recent national estimates suggest 2.56 million people are living with HIV in India, while adult HIV prevalence is still low at around 0.20 per cent. Despite this, a large population base with regional inequalities, gender biases, and socio-economic vulnerabilities continues to challenge India's national target of ending AIDS as a public health threat by 2030 (NACO, 2025).

Health literacy has become one of the key determinants of HIV prevention and control. Health literacy is more than just being aware. Rather, it also refers to a person being able to acquire, assess, interpret and use the information to make rational decisions on prevention and use of health services. Studies show that low HIV-related health literacy causes misunderstandings about transmission, delays in testing, stigma for people living with HIV, under-treatment adherence, and engagement in high-risk behaviours. Strengthening HIV health literacy is considered one of the most important components of global HIV prevention strategies (WHO, 2025; UNAIDS, 2024).

Low-income women, women of colour, and those living in High HIV Burden areas are particularly vulnerable to HIV misinformation. Due to a lack of access to education, reliable health information, gendered inequities and lower autonomy of decision making, the ability of women to practice preventive behaviours and use health services becomes limited. The challenges are many for women involved in vocational and community-based skill development programmers and most of them belong to the marginalised and low-income households.

In India, the various vocational skill development initiatives under Jan Shikshan Sansthan (JSS) play a vital role in ensuring livelihood opportunities for non-literate, neo-literate, school dropouts, and economically weaker sections. Most of these programmes that focus on enhancing employability and economic empowerment also significantly lend themselves as effective platforms for community-based health education. The integration of health literacy interventions into skill development programmes serves to fulfil the Sustainable Development Goals by enhancing economic capacity and public health at the same time.

There is a lot of literature that exists on HIV awareness among adolescents and college students, healthcare workers and high-risk groups. However, not much evidence through studies exists on HIV/AIDS awareness among women in vocational skills development programmes. There is thus a significant research gap because these institutions reach a considerable proportion of socially and economically vulnerable women who would otherwise not have exposure to structured health education. Thus, it is important to understand their level of awareness, misconceptions and knowledge about prevention to design interventions that are evidence-based health promotion.

In this background, the present cross-sectional study was conducted on assessment of HIV/AIDS awareness, knowledge of transmission and prevention and myths and misconceptionson HIV AIDS among female trainees of vocational skill development programmes at Jan Shikshan Sansthan, Chandigarh. The study findings will likely add to the

sparse evidence on HIV-related health literacy among vocational trainees and provide policy inputs for the institutionalisation of a structural HIV education component in programming designed to develop community-based skills. This will, in turn, assist in the promotion of public health as well as the empowerment of women.

Literature Review

HIV/AIDS Awareness and Health Literacy: A Global Perspective: Human Immunodeficiency Virus (HIV) has been one of the world's most serious public health challenges despite major advances in prevention, diagnosis and treatment. According to the Joint United Nations Programme on HIV/AIDS (UNAIDS, 2024), globally, 39.9 million people were living with HIV in 2023. New infections are still taking place among vulnerable and socially disadvantaged groups. As antiretroviral therapy (ART) has reduced AIDS-related deaths greatly, effective prevention depends on public awareness and health literacy, early diagnosis and behavioural change (WHO, 2025).

Health literacy is more than just knowledge of diseases. It is an individual's competence to access, understand, appraise and apply information so as to make informed health decisions (Nutbeam, 2000). The role of health literacy on HIV/AIDS transmission routes and prevention behaviours, HIV testing, treatment adherence and stigma will be discussed in this paper. Research indicates that people with higher health literacy have better preventive health behaviours, while low health literacy leads to misunderstandings, delayed diagnosis, and increased HIV infection risk (Sørensen et al., 2012; WHO, 2025).

Awareness has existed for several decades now. Nonetheless, knowledge related to HIV continues to differ between developed and developing nations and the socio-economic class. The inequalities show that community health education interventions should be created to improve health knowledge in underserved communities.

HIV/AIDS Awareness among Women in India: Over the years, India has achieved significant success in decreasing HIV prevalence in the country due to the National AIDS Control Programme (NACP), by NACO. The National AIDS Control Organisation has improved control towards HIV as a result of awareness campaigns, voluntary counselling and testing services, and parent-to-child transmission (PPTCT). Awareness levels remain uneven across regions and population groups.

Women, especially those from socio-economically marginalised communities, continue to experience a host of obstacles in getting HIV prevention. Women's limited education, lack of access to health information, financial dependence, gender inequality and cultural norms often hinder their decision-making power in regard to sexual and reproductive health. (UNAIDS, 2024) Studies in India have shown a relatively good awareness of sexual transmission of HIV but relatively less awareness of mother-to-child transmission, HIV testing, treatment availability and asymptomatic infection. Despite national awareness programmes, many are still unaware that the Zika virus does not spread via mosquito bites, sharing food or touch. These untruths strengthen stigma, dissuade testing for the disease, and reduce acceptance for people living with HIV (NACO, 2025; WHO, 2025). These findings indicate that there is an improvement in the awareness; however, comprehensive HIV related health literacy is still inadequate among the poor women.

Misconceptions and HIV-Related Stigma: Having knowledge doesn't guarantee appropriate preventive behaviour. Earlier studies show that even a moderately knowledgeable population is affected by misconceptions about HIV transmission. Misconceptions regarding transmission via mosquito bites, food sharing, hugging or social interaction can lead to stigma and discrimination against people living with HIV (Mahajan et al., 2008).

HIV-related stigma has been seen as one of the significant reasons for challenges in achieving HIV prevention goals. People who are stigmatised are less likely to get tested for HIV, disclose their HIV status or adhere to treatment (UNAIDS, 2024). As a result, international

agencies are emphasising more and more that awareness programmes must simultaneously enhance factual knowledge as well as social attitudes, misconceptions and discriminatory behaviours.

"In terms of knowledge improvement, educational interventions that include factual information along with participatory learning methods, peer education, community involvement and outreach have much better outcomes than standard awareness campaigns." As these findings show us, health education should not happen as an awareness event, but rather it should be continuous to make a change in one's behaviour.

Vocational Skill Development as a Platform for Health Promotion: Vocational education institutions are an important yet underused site for community health promotion. The schemes like Jan Shikshan Sansthan (JSS) aim at enhancing the employability of non-literate, neo-literate, dropouts, women and disadvantaged sections of the society. These programmes routinely involve beneficiaries in the training activities to provide opportunities to include health education with vocational skills.

The concept of health promotion in education and on the job is consistent with the Ottawa Charter for Health Promotion, which advocates creating supportive environments and strengthening community action through education (World Health Organisation (WHO), 1986). Including HIV/AIDS education in vocational training programs can enhance health literacy, clear misconceptions, foster preventive behaviour, while also promoting broader goals of social inclusion and women's empowerment.

Research that looks into HIV awareness of vocational trainees is limited. Earlier research mostly targeted adolescents or school-going children, students, healthcare workers, sex workers, or other high-risk groups. Women participating in government-sponsored skill development programmes may be vulnerable to a lack of health information and social discrimination, but comparatively less attention has been paid to the issue.

Theoretical Perspective: Fundamentally, the present study is influenced by the Health Belief Model (HBM) of Rosenstock (1974). The health belief model refers to when an individual believes he is susceptible to a disease, believes the disease to be serious, believes taking a preventive action would be beneficial, and believes there are few barriers to taking action. Aids and HIV-related knowledge will serve as an important cue to action about awareness of the severity of the disease and will lead to practices in fuller utilization of aids and HIV testing, condom use and timely health-seeking behaviour.

The above study is also underpinned by Nutbeam's Health Literacy Framework (Nutbeam, 2000), which contextualises health literacy to include functional, interactive and critical dimensions. Individuals with functional health literacy can understand basic health information. Interactive and critical health literacy helps them apply this knowledge in the real world and make informed health choices. In vocational training settings, enhancing health literacy can improve HIV knowledge, reduce myths, and promote preventive practices among women from economically weaker sections. The combined strength of these theoretical perspectives can enhance our understanding of the way knowledge, beliefs, and health literacy influence HIV awareness and preventive behaviour within community-based skill development programmes.

The existing literature demonstrates substantial progress in understanding HIV/AIDS awareness across different population groups. Nevertheless, several important research gaps remain.For instance,most of the studies have focused on adolescents, university students, health professionals, and high-risk populations. However, limited studies have looked into HIV-related health literacy among women enrolled in vocational skill development programmes. Moreover, while many studies have measured general awareness of HIV/AIDS, comparative less studies have focused on awareness that basically includes misconceptions, preventive knowledge and behavioural implications among the socio-economically deprived

women within a health literacy framework. The third category of government-sponsored vocational institutions, namely Jan Shikshan Sansthan, which is serving large numbers of socially vulnerable women, is another under-researched area that offers potential for integrated health education initiatives. Ultimately, very few studies have looked into whether vocational training programmes can serve as entry points for community-based HIV prevention and health promotion. In light of these gaps, the present study was carried out on awareness about HIV/AIDS, its means of transmission, prevention and misconceptions regarding it among the female trainees of Jan Shikshan Sansthan, Chandigarh. Results are expected to add to the existing body of literature on health literacy and provide additional evidence to enhance formal HIV education into vocational skills training programmes.

Research Objectives: The present study aims to find out the HIV/AIDS health literacy status of female beneficiaries receiving vocational skill development training at Jan Shikshan Sansthan (JSS), Chandigarh. The study mainly aims to explore the implications of HIV Health Education (HHED) for the integration of health education in community-based vocational skill development programmes. In pursuit of this objective, the study design involving (i) to explore the knowledge about HIV/AIDS among female vocational skill trainees.

The study had objectives to

(i) Examine knowledge of the disease
(ii) Assess knowledge of transmission routes and
(iii) Evaluate knowledge of prevention, diagnosis, and treatment measures.

Methodology

The current research was carried out in a cross-sectional descriptive research design to assess the level of HIV/AIDS awareness and health literacy among the female beneficiaries undergoing vocational skill development courses at Jan Shikshan Sansthan (JSS), Chandigarh. The Jute Sector Skill Council (JSS) is an autonomous sector skill council of India approved by the Ministry of Skill Development & Entrepreneurship, Government of India. JSS provides vocational education and training and skill development training to economically and socially disadvantaged sections of the population, particularly women, non-literate, neo-literate and school dropout groups of the population. Due to its large outreach to the community, the institution proved to be an apt setting to study HIV-related knowledge among vulnerable women.

JSS (Chandigarh) offers various vocational training programmes to around 600 female trainees every year. Participants were chosen based on their availability throughout the data collection phase, along with their willingness to take part in the study. The data was collected using a structured questionnaire developed after a comprehensive review of literature on HIV/AIDs awareness and health literacy. The questionnaire was designed with two parts; the first collected socio-demographic data, while the second on men's knowledge of HIV transmission, prevention, diagnosis, treatment, disease progression and myths. Before being distributed, the experts in public health and social sciences reviewed the questionnaire for content validity. Results depending on the percentage.

Before data collection, participants were made aware of the study's purpose and informed consent was obtained. The respondents chose to participate voluntarily, and their anonymity as well as confidentiality were guaranteed. We did not collect any personally identifiable information, and the data were used solely for academic research in keeping with widely accepted ethical principles for social science research.

The collected data were coded and analysed using SPSS software. To summarise the respondents' levels of awareness of HIV AIDS, knowledge of how it is transmitted and prevented, and the existing myths, descriptive statistical techniques (frequencies and percentages) were employed. The findings provided in a tabular form will help in the

interpretation and determine where health education needs to be concentrated among female vocational skill trainees.

Findings

As per Table 1, the respondents are generally basic knowledge of HIV/AIDS. In overall assessments, the level of general awareness was regarded as satisfactory since 75.8% of the respondents affirmed HIV. However, the knowledge regarding the full form of AIDS was comparatively lower (65.8%). This means that almost a third of the respondents did not have fundamental conceptual knowledge of the disease. Between general awareness and technical understanding, it is seen that the participants have been exposed to the information of HIV/AIDS but not thoroughly. In light of these findings, a structured health education programme to enhance awareness and improve the overall health literacy of female vocational skill trainees is required.

Table 1. Basic Knowledge of HIV/AIDS among Female Vocational Skill Trainees (N = 120)

Indicator	Correct (%)	Incorrect (%)
Knowledge of HIV	75.8	24.2
Correct full form of AIDS	65.8	34.2

The following table 2 indicates the awareness of the respondents about the biological mechanism of HIV. The study results show that the immune system has the highest level of awareness, with a percentage of 81.7. This means that the majority of respondents identified the immune system as the body system affected by HIV. Also, 75.8% accurately identified the immunodeficiency caused by HIV, while 73.3% accurately identified the cells that the virus targets. The study finds that the respondents have fairly good knowledge about the biological aspects surrounding HIV infection. However, about one-quarter of the participants have low disease mechanism knowledge; there is a need for educational interventions aimed at increasing HIV/AIDS scientific knowledge and informed health decision-making.

Table 2. Knowledge of HIV Disease Mechanism among Female Vocational Skill Trainees (N = 120)

Indicator	Correct (%)	Incorrect (%)
Cells attacked by HIV	73.3	26.7
The body system primarily affected by HIV	81.7	18.3
Deficiency caused by HIV	75.8	24.2

Table 3 shows respondents' knowledge of HIV transmission. People have a moderate awareness of how HIV is transmitted, but there are still certain knowledge gaps. Awareness of HIV transmission/mother-to-child transmission was present in 63.3% of respondents, and in the non-transmission mode was in 65.8% of the respondents. The lowest awareness level was for knowing the modes of HIV non-spread, with only 57.5% giving the correct answer. As a considerable proportion of respondents continue to harbour the misconception related to casual contact and vertical transmission, focused educational interventions must improve comprehensive knowledge regarding HIV transmission.

Table 3. Awareness of HIV Transmission among Female Vocational Skill Trainees (N = 120)

Indicator	Correct (%)	Incorrect (%)
Modes through which HIV does not spread	57.5	42.5
Mother-to-child transmission	63.3	36.7
Knowledge of Non-transmission modes	65.8	34.2

Table 4 illustrates respondents' knowledge regarding HIV prevention and treatment. According to the results, the majority know HIV prevention and treatment. As much as 75.0% of the respondents correctly identified the correct measures to take during sexual contact to prevent HIV, thus indicating a fairly good level of awareness. Nonetheless, the percentage of the participants who are aware that antiretroviral therapy is used to treat HIV infection is 69.2%. Misconceptions regarding cure persist among over a third, only 63.3% correctly understood HIV has no complete cure. This study showed that it would be great to have health education for this population for HIV Prevention strategies and treatment options available. Moreover, this study did find that many believed in the cure of disease, and so this need distinction needs to be made clear as well.

Table 4. Awareness of HIV Prevention and Treatment among Female Vocational Skill Trainees (N = 120)

Indicator	Correct (%)	Incorrect (%)
Most effective prevention during sexual contact	75.0	25.0
Knowledge that HIV has no complete cure	63.3	36.7
Awareness of treatment used to manage HIV	69.2	30.8

Table 5 highlights the awareness of respondents on the changing face of HIV infection. The results show a fairly good understanding of the disease progression, with over 70% of the respondents getting all three indicators correctly. A whopping 76.7% the respondents knew that a person having HIV infection is asymptomatic. Further, knowledge that an HIV-positive person can appear healthy (74.2%) and AIDS is the advanced stage of HIV (73.3%) was also prevalent. In spite of these promising results, almost one-fourth of responders did not have a true understanding of the disease progression. Therefore, underlying health education needs to be continuous so that they are made aware of the natural course of HIV infection and the importance of early diagnosis and prompt treatment.

Table 5. Knowledge of HIV Disease Progression among Female Vocational Skill Trainees (N = 120)

Indicator	Correct (%)	Incorrect (%)
AIDS is the final stage of HIV infection	73.3	26.7
A HIV-positive person may appear healthy	74.2	25.8
HIV infection may remain asymptomatic	76.7	23.3

Table 6 presents the respondents' general awareness of HIV/AIDS. According to the findings, the awareness of 'World AIDS Day' was the highest reported (80.8%), presenting a successful outcome of the awareness campaigns. It was found that 70.0% of subjects gave correct answers regarding Historical Recognition of HIV. Conversely, only 62.5% of the respondents were aware of the common HIV diagnostic test, which indicates potential unawareness of HIV testing services and early diagnosis. As a result of the findings, it was observed that although it has made the people more cognizant of HIV/AIDS, it should now get more attention to improve the knowledge of HIV testing and early detection. It must be included in the HIV prevention and control programme.

Table 6. General HIV/AIDS Awareness among Female Vocational Skill Trainees

(N = 120)

Indicator	Correct (%)	Incorrect (%)
Common HIV diagnostic test	62.5	37.5
The country where HIV was first recognised	70.0	30.0
World AIDS Day (1 December)	80.8	19.2

The study findings indicate that the female vocational skill trainees have a moderate to good level of awareness regarding HIV/AIDS, with an overall knowledge score of approximately 70.8%. Respondents exhibited a high level of understanding about the biological mechanism underlying HIV infection and disease progression, while their knowledge of HIV transmission, diagnostic testing and treatment was relatively lower. The ongoing misunderstanding of HIV's causal transmission and cure reflects that awareness is not enough for complete health literacy.

Table 7. Overall HIV/AIDS Knowledge by Domain

Knowledge Domain	Mean Correct (%)	Knowledge Level
Basic HIV knowledge	70.8	Moderate
Disease mechanism	76.9	Good
HIV transmission	62.2	Moderate
Prevention and treatment	69.2	Moderate
Disease progression	74.7	Good
General HIV/AIDS awareness	71.1	Good
Overall HIV/AIDS awareness	70.8	Moderate to Good

These findings support the need for integrating structured HIV/AIDS education into vocational skill development programmes. Such interventions have the potential to improve health literacy, reduce misconceptions and stigma, and promote informed health-seeking behaviour among economically vulnerable women.

Conclusion

The present study was undertaken to ascertain the HIV/AIDS awareness and health literacy among the female vocational skill trainees studying at Jan Shikshan Sansthan (JSS), Chandigarh. HIV/AIDS is considered a serious infectious disease and has a high mortality rate and morbidity associated. The concentration of the study was particularly on the knowledge of HIV/aids transmission, mechanism of illness, prevention, treatment, disease progression, misconceptions and the latest information on HIV/AIDS. The study shows that

the respondents of the study had a moderate to high overall level of knowledge on HIV/AIDS (70.8%). However, there are important gaps in HIV health literacy. People diagnosed with HIV and unaware of such status showed greater and lower understanding, respectively, regarding the biological process of HIV infection and disease progression, as well as mother-to-child transmission, HIV diagnostic services, treatment, and false beliefs about casual transmission. It can be interpreted that health campaigns have generated awareness among women, but not among other health literacy in poor women.

The study adds to the limited existing empirical evidence regarding HIV/AIDS awareness in the vocational skill development context in India and further demonstrates that the vocational skill development institutions are a significant but under-utilised platform for health promotion of the community. Structured education on HIV/AIDS can be added to existing vocational training programmes that will improve knowledge, reduce stigma, and enhance preventive health behaviour. This strategy of HIV prevention and gender empowerment is aligned with the national strategies and sustainable development goals, and on the other hand, promotes health, gender empowerment and social inclusion.

While the research is restricted to one vocational training institution and a not-so-big sample of female trainees, it still proves to be a useful piece of baseline evidence for policymakers, public health practitioners, and vocational training institutions to strengthen health literacy among the vulnerable. Going forward, larger multi-centre studies that use analytical statistical techniques are needed to determine the HIV-related health literacy and assess the effectiveness of integrated educational interventions. The HIV health literacy in vocational skill development programmes can help improve one's own health and contribute towards community-level HIV prevention and public health promotion efforts.

Based on the research findings, the following recommendations have been suggested. First, incorporate HIV/AIDS education on a structured basis into the vocational skill development programmes of female trainees. Second, strengthen awareness campaigns focusing on mother-to-child transmission, HIV testing, treatment, and misconceptions related to casual transmission. Third, organise regular health education sessions with health care professionals and the National AIDS Control Programme (NACP) to strengthen correct HIV-related knowledge. Fourth, develop culturally appropriate Information, Education, and Communication (IEC) materials to promote preventive behaviours, reduce stigma, and encourage early HIV testing and fifth, conduct national-level multi-centre studies to assess HIV-related health literacy of students of vocational training institutions and effectiveness of integrated health education interventions.

References

Mahajan, A. P., Sayles, J. N., Patel, V. A., Remien, R. H., Sawires, S. R., Ortiz, D. J., Szekeres, G., & Coates, T. J. (2008). Stigma in the HIV/AIDS epidemic: A review of the literature and recommendations for the way forward. AIDS, 22*(Suppl. 2), S67–S79. https://doi.org/10.1097/01.aids.0000327438.13291.62*

National AIDS Control Organisation. (2025). HIV estimation technical report 2025. *Ministry of Health and Family Welfare, Government of India.*

Nutbeam, D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. Health Promotion International, 15*(3), 259–267. https://doi.org/10.1093/heapro/15.3.259*

Rosenstock, I. M. (1974). Historical origins of the Health Belief Model. Health Education Monographs, 2*(4), 328–335. https://doi.org/10.1177/109019817400200403*

Sørensen, K., Van den Broucke, S., Fullam, J., Doyle, G., Pelikan, J., Slonska, Z., Brand, H., & the HLS-EU Consortium. (2012). Health literacy and public health: A systematic review and integration of definitions and models. BMC Public Health, 12*, 80. https://doi.org/10.1186/1471-2458-12-80*

Joint United Nations Programme on HIV/AIDS. (2024). The global AIDS update 2024. *UNAIDS.*

World Health Organization. (1986). Ottawa charter for health promotion. *World Health Organization.*

World Health Organization. (2025). HIV data and statistics. *World Health Organization.* *https://www.who.int/teams/global-hiv-hepatitis-and-stis-programmes/hiv/strategic-information/hiv-data-and-statistics*