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HIV/AIDS IN NEPAL: TRENDS, BARRIERS, CHALLENGES AND STRATEGIC RESPONSES

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Abstract

Human Immunodeficiency Virus/Acquired Immunodefic iency Syndrome (HIV/AIDS) continues to pose a significant public health challenge in Nepal. The epidemic disproportionately impacts key populations, including female sex workers, men who have sex with men (MSM), people who inject drugs (PWID), and migrant workers. Despite commendable progress in expanding antiretroviral therapy (ART) services and increasing HIV testing coverage, the national response is continually hampered by pervasive systemic and structural barriers that impede equitable and sustainable outcomes. This study aims to provide a critical assessment of the current epidemiological status of HIV/AIDS in Nepal and to meticulously examine the major challenges that obstruct effective prevention, treatment, and control efforts. Employing a qualitative and descriptive methodology, this investigation synthesizes evidence from authoritative secondary sources, including government surveillance data, national policy documents, and peer-reviewed academic literature. The analysis reveals critical gaps in service delivery, widespread social stigma, a notable deficit in comprehensive sexual and reproductive health education, and persistent inequities in access to care, particularly affecting rural and marginalized communities. The findings indicate that while Nepal has achieved measurable advancements, high-risk populations remain underserved due to a complex interplay of sociocultural discrimination, geographic isolation, and limited health system capacity. Furthermore, migrant workers experience heightened vulnerability, often stemming from inadequate pre-departure education and a lack of reintegration services upon their return. The study concludes that an effective

response to HIV/AIDS in Nepal necessitates a rights-based, community-driven, and multisectoral approach. This includes scaling up stigma-reduction initiatives, integrating HIV education into both school curricula and public outreach programs, expanding community-based services, and enhancing surveillance for data-driven policymaking. Only through such inclusive and targeted interventions can Nepal aspire to achieve long-term epidemic control and foster improved health equity among its vulnerable populations.

Keywords: Migrant workers, Key populations, Stigma and discrimination, Public health policy, Service accessibility, Nepal, HIV/AIDS epidemic

Introduction

Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) persist as formidable and intricate global public health issues in the 21st century. Despite significant advancements in diagnostic capabilities, therapeutic interventions, and preventive measures, the epidemic continues to exert a disproportionate burden on low- and middle-income countries, where healthcare resources, public awareness, and access to services often remain severely constrained. For instance, as of the close of 2023, an estimated 29,944 individuals were living with HIV in Nepal. An examination of the demographic distribution of reported cases reveals a notable imbalance, with males constituting approximately 67% and females 33% of the affected population. This distribution suggests underlying behavioral patterns and differential access to healthcare services that warrant closer scrutiny.

The epidemic in Nepal is characterized as "concentrated," implying that while the national prevalence remains relatively low estimated at less than 0.2% among the general population a significantly higher burden is observed within specific key populations. These groups include female sex workers, men who have sex with men (MSM), people who inject drugs (PWID), and migrant workers. These populations often face a compounding of vulnerabilities stemming from social stigma, systemic discrimination, limited legal protections, and inadequate access to essential healthcare services. Such interconnected challenges underscore that the issue extends beyond individual risk behaviors to encompass structural inequities that actively impede health outcomes. In response to this complex challenge, the government of Nepal has expanded access to treatment, establishing over 70 Antiretroviral Therapy (ART) centers nationwide, which collectively serve approximately 25,000 individuals living with HIV.

Nepal reported its inaugural case of HIV infection in 1988, marking the commencement of a new era of epidemiological vigilance and public health intervention. Since that time, the government of Nepal, in close coordination with international agencies such as UNAIDS, the Global Fund, and the World Health Organization (WHO), has initiated a series of strategic interventions aimed at curbing the spread of the virus. These efforts encompass the formulation of national HIV strategic plans, the expansion of voluntary counseling and testing (VCT) centers, and the scaling up of antiretroviral therapy (ART) programs. The persistent structural and systemic barriers, including geographic disparities in service delivery, pervasive sociocultural stigma, and insufficient integration of HIV services within broader public health frameworks, continue to undermine equitable access to care and the long-term effectiveness of HIV control efforts. Given these multifaceted complexities, a critical assessment of the current state of HIV/AIDS in Nepal becomes imperative to inform the development of more inclusive, rights-based, and evidence-driven approaches to both prevention and treatment. This paper therefore examines the epidemiological trends of HIV/AIDS in Nepal and explores the major challenges that continue to obstruct sustainable progress in the national response to the epidemic.

Objectives

The primary aim of this study is to critically assess the current epidemiological status and emerging trends of HIV/AIDS in Nepal. This overarching objective encompasses several specific aims designed to provide a comprehensive understanding of the epidemic's dynamics and the national response.

First, the study seeks to analyze the burden of the disease among key affected populations, identifying the specific groups most impacted and the factors contributing to their heightened vulnerability. Second, it endeavors to evaluate the effectiveness of existing national response mechanisms, scrutinizing their reach, quality, and impact on disease progression and control. Furthermore, a crucial objective of this research is to identify the principal structural, social, and institutional barriers that persistently hinder the prevention, diagnosis, treatment, and overall management of HIV/AIDS in the country. These barriers are diverse and include, but are not limited to, issues of pervasive stigma and discrimination, significant gaps in healthcare service delivery, persistent geographic and gender-based disparities in access, and the insufficient integration of HIV programs within the broader public health framework. Ultimately, by achieving these objectives, the study endeavors to offer evidence-based and policy-relevant recommendations aimed at strengthening the

national HIV response, with a particular emphasis on fostering equity, inclusivity, and long-term sustainability.

Methodology

This study employs a qualitative, descriptive, and analytical research design, relying exclusively on secondary data sources to investigate the current status and challenges of HIV/AIDS in Nepal. The decision to utilize secondary data allows for a broad, national-level overview and trend analysis, synthesizing a wide array of existing information. Data were systematically gathered from highly authoritative and credible sources, which included official reports published by the National Centre for AIDS and STD Control (NCASC), the World Health Organization (WHO), and UNAIDS. The selection of these organizations ensures that the information is derived from recognized global and national health authorities, thereby enhancing the reliability and validity of the findings.

In addition to these official reports, pertinent national policy documents and a comprehensive body of peer-reviewed scholarly articles were thoroughly reviewed. The inclusion of academic literature served to enrich the analytical depth, providing diverse perspectives and empirical evidence that complement the official statistics and policy statements. This methodological approach involves synthesizing both quantitative and qualitative evidence related to HIV prevalence, the accessibility and utilization of healthcare services, and the intricate sociocultural factors that act as barriers to effective prevention and treatment.

This comprehensive synthesis facilitates a nuanced understanding of the multifaceted dimensions of the HIV epidemic in Nepal. By integrating diverse data types and perspectives, the approach enables the precise identification of critical gaps and strategic opportunities within the existing national response framework, allowing for a more complete picture of the challenges and potential solutions. While relying on secondary data provides a broad understanding, it inherently means the study cannot capture real-time, ground-level experiences or emerging issues not yet documented in official reports or published literature. However, its strength lies in its ability to provide a robust, comprehensive overview of the national context, which is vital for informing policy recommendations.

Results and Discussion

This section presents a structured, evidence-based analysis across six core thematic areas that collectively define the HIV/AIDS landscape in Nepal. Each theme is critically

examined to highlight the multifaceted challenges and systemic barriers that continue to impede prevention, treatment, and care efforts in the country. The discussion integrates findings with interpretive commentary, drawing connections and inferring broader implications for the national response.

Epidemiological Overview

The most recent data from the National Centre for AIDS and STD Control (NCASC, 2023) indicate that approximately 29,944 individuals are living with HIV in Nepal. A significant observation is the disproportionate gender distribution of cases, with males accounting for nearly 67% and females for approximately 33%. This imbalance reflects not only varying behavioral risk patterns but also potentially differential access to healthcare services between genders, suggesting that interventions must be gender-sensitive, addressing both prevalent risk behaviors among males and systemic barriers that may prevent females from accessing testing and care.

The HIV epidemic in Nepal is formally classified as concentrated. This classification implies that while the prevalence among the general population remains relatively low (under 0.2%), significantly higher rates are observed within specific high-risk populations. These key populations include female sex workers, men who have sex with men (MSM), people who inject drugs (PWID), and migrant workers. These groups experience elevated risk not solely due to specific behaviors but also because of overlapping structural vulnerabilities, such as legal marginalization, economic insecurity, and pervasive social stigma. These factors collectively impede their access to crucial prevention, testing, and treatment services. The compounding of these vulnerabilities signifies a systemic failure to adequately protect and serve these groups, indicating that the issue is not merely a health concern but also a human rights challenge where societal structures actively undermine health outcomes. For example, migrant workers frequently encounter unsafe sexual practices abroad and may lack sufficient knowledge or access to HIV services upon their return. Similarly, MSM and transgender individuals often face discrimination within healthcare systems, which deters them from engaging with formal care providers.

Despite the government of Nepal's notable investments in expanding HIV services, including the establishment of over 70 Antiretroviral Therapy (ART) centers nationwide, substantial gaps persist in both service coverage and utilization. These deficiencies are particularly pronounced in rural, remote, and underserved areas. Barriers such as geographic isolation, shortages of trained healthcare providers, limited ART availability, and inadequate

viral load monitoring infrastructure compromise the quality and continuity of care in these regions. The presence of these specific limitations, despite the overall expansion of centers, highlights a critical implementation gap and a weakness in the systemic resilience of the healthcare infrastructure. It suggests that merely establishing centers is insufficient; ensuring they are fully equipped and functional with necessary supplies and monitoring capabilities is paramount.

The uptake of voluntary HIV counseling and testing (VCT) has improved in recent years, supported by outreach initiatives and integration with maternal health and tuberculosis programs. However, these gains are often offset by persistent social stigma, low levels of HIV literacy, and a profound fear of discrimination, which discourage many individuals, particularly from key populations, from seeking early testing or disclosing their HIV status. Furthermore, disparities are evident in treatment initiation, retention in care, and viral suppression, with marginalized and high-risk groups disproportionately underrepresented in treatment statistics. Gender-based and socioeconomic inequalities, further exacerbated by existing caste and ethnic hierarchies, perpetuate health inequities across the entire continuum of care. These findings collectively underscore the complexity of the HIV/AIDS epidemic in Nepal, which is shaped by a dynamic interplay of epidemiological, social, and structural determinants. A more differentiated, equity-focused approach is therefore required to effectively reduce new infections and improve the health and well-being of people living with HIV.

Table 1

Key HIV/AIDS Indicators in Nepal (as of End of 2023)

Indicator	Data	Source
Estimated individuals living with HIV (PLHIV)	29,944	NCASC, 2023
Gender distribution (Males)	67%	NCASC, 2023
Gender distribution (Females)	33%	NCASC, 2023
General population prevalence	<0.2%	UNAIDS, 2022; NCASC, 2023
Epidemic classification	Concentrated	UNAIDS, 2022; NCASC, 2023
Operational ART centers	>70	NCASC, 2023
Individuals receiving ART	25,000	NCASC, 2023

Note. PLHIV = People Living with HIV; ART = Antiretroviral Therapy; NCASC = National

Centre for AIDS and STD Control; UNAIDS = Joint United Nations Programme on HIV/AIDS.

Access to Services

Nepal has demonstrated commendable progress in strengthening its HIV treatment infrastructure over the past decade. With more than 70 Antiretroviral Therapy (ART) centers established across the country, approximately 25,000 people living with HIV (PLHIV) currently receive life-saving treatment services. This expansion reflects concerted efforts by the government in partnership with international organizations to increase accessibility and reduce HIV-related morbidity and mortality.

However, despite these advancements, significant gaps persist within the continuum of care, which encompasses testing, treatment initiation, retention in care, and viral suppression. These gaps are particularly pronounced in rural, mountainous, and marginalized communities, where geographic remoteness poses substantial challenges to accessing health facilities. Transportation difficulties, poor road infrastructure, and seasonal weather disruptions often result in missed appointments and interruptions in treatment continuity. This indicates that simply establishing physical centers is insufficient if the logistical and environmental factors preventing consistent access are not addressed.

Additionally, shortages of trained healthcare providers skilled in HIV care and counseling further restrict service availability and quality in underserved regions. Many ART centers experience high patient-to-provider ratios, which can reduce the time and attention devoted to each patient and negatively impact adherence counseling. Infrastructure limitations, including inconsistent supply chains for antiretroviral drugs and inadequate laboratory capacity for viral load monitoring, compound these challenges. The "inconsistent supply chains" and "inadequate laboratory capacity" reveal a critical weakness in the systemic resilience of the healthcare infrastructure, suggesting that the quality and sustainability of services are compromised even where physical access exists.

Marginalized populations, including women, transgender individuals, sex workers, and migrant workers, face compounded barriers due to pervasive stigma, discrimination, and a lack of culturally sensitive services. These factors hinder their willingness and ability to engage consistently with HIV care services, resulting in suboptimal treatment outcomes. The presence of these "compounded barriers" indicates that a "one-size-fits-all" approach to healthcare delivery is ineffective, necessitating a shift towards equity-oriented, differentiated service models that acknowledge and actively address the unique social and cultural contexts of various key populations.

To enhance the effectiveness of Nepal's HIV response, it is imperative to address these disparities by strengthening decentralized service delivery models, including community-based ART distribution and mobile clinics. Investing in capacity-building for healthcare workers, improving supply chain management, and integrating HIV services with broader primary healthcare can facilitate more equitable and sustained access. Furthermore, tailored interventions that address the unique needs of vulnerable groups are essential for improving treatment uptake, retention, and viral suppression, thereby advancing Nepal toward the goals of universal health coverage and epidemic control.

Social Stigma and Discrimination

The persistence of HIV-related stigma in Nepal profoundly affects individuals living with HIV (PLHIV) and significantly hampers broader public health efforts to control the epidemic. Stigmatization manifests at multiple levels individual, familial, community, and institutional thereby creating a complex web of social exclusion that restricts PLHIV from fully participating in society and accessing care.

At the individual level, fear of judgment and discrimination often leads to delayed or avoided HIV testing, which contributes to late diagnosis and worsened health outcomes. Families of PLHIV may also experience secondary stigma, facing ostracization and social isolation that further perpetuate silence and denial surrounding the disease. Within healthcare settings, discriminatory attitudes among healthcare providers have been documented, including breaches of confidentiality, denial of care, and substandard treatment. This institutional stigma erodes trust in the health system and exacerbates health disparities, highlighting that even when physical access exists, the quality of interaction and trust are undermined, effectively creating a barrier to care from within the system itself.

Moreover, the fear of social repercussions frequently inhibits open discussion about HIV in communities, limiting the dissemination of accurate information and preventing effective community mobilization for prevention and support. The intersectionality of stigma with other social determinants such as gender, caste, socioeconomic status, and sexual orientation compounds vulnerability, particularly for marginalized groups such as transgender individuals, female sex workers, and men who have sex with men (MSM). These groups face heightened discrimination that further restricts access to essential services and amplifies risk. This analytical point underscores that stigma is not a standalone problem but is amplified by existing inequalities, implying that anti-stigma interventions must be integrated with broader social justice and equity initiatives.

Addressing HIV-related stigma in Nepal requires multifaceted and culturally sensitive strategies. Community-based interventions that involve peer educators, PLHIV networks, and local leaders have shown promise in shifting harmful attitudes and promoting social inclusion. Training healthcare providers to adopt nonjudgmental, confidential, and rights-based approaches is critical to mitigating institutional stigma. Policy reforms that protect the rights of PLHIV and enforce anti-discrimination laws are essential to creating an enabling environment. Ultimately, sustained efforts to normalize HIV within societal discourse, combined with the empowerment of affected populations, are vital to reducing stigma and improving health outcomes.

Inequitable Access to Care

The distribution of healthcare services for HIV/AIDS in Nepal remains heavily skewed towards urban and peri-urban areas, significantly exacerbating existing geographical and socioeconomic disparities in access to essential prevention, diagnostic, and treatment services. Rural populations, often residing in remote and mountainous regions, face substantial logistical challenges, including transportation difficulties, limited healthcare infrastructure, and chronic shortages of trained healthcare personnel. These factors severely constrain their ability to obtain timely HIV testing and maintain consistent treatment regimens. The repeated mention of "shortages of trained healthcare personnel" across multiple sections highlights a fundamental human resource crisis within Nepal's health system, indicating a systemic issue that impacts the delivery of all health services.

Moreover, marginalized groups, such as transgender individuals and female sex workers, encounter intersecting layers of social exclusion, stigma, and discrimination that further restrict their access to healthcare services. For instance, transgender populations frequently report negative experiences within healthcare settings, including breaches of confidentiality and provider prejudice, which deter service utilization. Female sex workers also confront legal and societal barriers that limit their engagement with formal health systems, despite being disproportionately affected by HIV. The interplay between geographic remoteness and social exclusion creates a double burden for marginalized rural populations, suggesting that interventions must be simultaneously geographically accessible and culturally safe/stigma-free.

These compounded disparities result in suboptimal health outcomes and sustain transmission within and beyond these vulnerable groups. Addressing these inequities requires a deliberate policy focus on decentralizing healthcare delivery, strengthening community-

based outreach programs, and integrating stigma reduction strategies into all levels of HIV care. Additionally, empowering key populations through legal protections and social inclusion initiatives is critical to closing the access gap and achieving equitable health outcomes.

Lack of Comprehensive Education

The absence of comprehensive, age-appropriate, and culturally sensitive sexual and reproductive health (SRH) education remains a critical barrier to effective HIV prevention in Nepal. In many communities, particularly in rural and conservative regions, young people and key populations are not systematically exposed to accurate information regarding modes of HIV transmission, preventive practices, and sexual health more broadly. As a result, misconceptions and myths about HIV persist, contributing to high-risk behaviors and delayed health-seeking practices. The persistence of these "misconceptions and myths" directly fuels social stigma, creating a causal loop where poor education leads to misinformation, which reinforces stigma, making open discussion and comprehensive education even harder.

Formal school curricula often lack standardized and evidence-based sexual education content, while out-of-school youth, especially those from marginalized groups such as migrant workers, transgender individuals, and female sex workers, have limited access to alternative sources of reliable health information. This indicates a systemic failure in the educational sector to respond to a critical public health need, pointing to a necessity for inter-ministerial collaboration (Health and Education) to integrate health education as a core component of national development. Cultural taboos surrounding discussions of sexuality and reproductive health further hinder open dialogue, leaving many individuals ill-equipped to make informed decisions regarding their sexual well-being.

This educational deficit not only impairs knowledge but also perpetuates stigma and silence around HIV. Individuals unaware of their risk status are less likely to seek HIV testing or engage in preventive behaviors such as condom use or pre-exposure prophylaxis (PrEP), if available. Furthermore, misinformation and fear contribute to the marginalization of people living with HIV (PLHIV), weakening community-based prevention efforts and hampering public health outreach. Bridging this educational gap requires the integration of inclusive, scientifically accurate, and rights-based sexual and reproductive health education within both formal and informal learning systems. This should be coupled with mass media campaigns, peer-led outreach, and community-based initiatives that are linguistically and culturally tailored to reach diverse populations. Strengthening knowledge is a foundational

strategy in empowering individuals to protect themselves and others, thereby fostering a more informed and health-literate society.

Migrant Workers and Cross-Border Transmission

Labor migration remains a significant socio-economic phenomenon in Nepal, with a substantial portion of the working-age population seeking employment abroad, particularly in Gulf countries, Malaysia, and India. While migration contributes positively to household income and national remittances, it simultaneously presents considerable public health challenges, particularly in the context of HIV transmission. Migrant workers represent a high-risk group due to heightened vulnerability to unsafe sexual practices, limited access to health services in host countries, and inadequate pre-departure education regarding HIV prevention.

Numerous studies have documented that a sizable proportion of HIV-positive returnee migrants acquire the virus during foreign employment. Contributing factors include a lack of access to condoms, engagement with commercial sex workers, and minimal access to HIV testing or antiretroviral therapy while abroad. These risks are compounded by the absence of institutionalized pre-departure orientation programs and a near-complete lack of structured health screenings or post-return counseling for migrants upon re-entry into Nepal. This "absence of institutionalized programs" represents a significant policy and programmatic void, indicating a failure of the national migration governance framework to integrate public health considerations, effectively turning a socio-economic phenomenon into a public health vulnerability.

Moreover, the return of HIV-positive migrants to their communities without adequate knowledge, counseling, or disclosure contributes to intra-marital and intra-familial transmission. Spouses and partners, particularly women in rural areas, are disproportionately affected due to limited awareness, economic dependence, and inability to negotiate safe sex. This pattern of domestic transmission reflects deeper structural and gendered dimensions of HIV risk within migrant-dependent households. The phenomenon of "intra-marital and intra-familial transmission" reveals deeply embedded gender inequalities and power imbalances within households, where women's vulnerabilities are not just individual factors but systemic issues rooted in societal gender norms.

The intersection of migration and HIV risk demands a coordinated, bi-national, and multisectoral response. Policy gaps in both sending and receiving countries must be addressed through enhanced cross-border collaboration, the development of culturally

appropriate pre-departure HIV education, and comprehensive reintegration programs for returnee migrants that include voluntary testing, psychosocial support, and treatment linkage. Without these targeted interventions, migration will continue to be a significant driver of the HIV epidemic in Nepal's high-risk regions.

Major Challenges of HIV/AIDS in Nepal

Nepal's HIV/AIDS response faces multifaceted and interconnected challenges that collectively hinder equitable and sustainable outcomes. These challenges are not isolated issues but rather form a complex web of systemic barriers that necessitate a holistic and integrated approach for effective mitigation.

Geographic and Socioeconomic Inequities

A critical challenge in Nepal's HIV response is the uneven distribution of healthcare infrastructure and services, which disproportionately favors urban centers over rural and remote areas. Individuals residing in geographically isolated regions often face substantial barriers to accessing essential HIV-related services, including testing, counseling, and antiretroviral therapy (ART). These barriers are further compounded by socioeconomic disadvantages, such as poverty, low literacy levels, and inadequate transportation networks, which limit both physical and financial access to care. The cumulative effect of these geographic and economic disparities results in delayed diagnoses, poor treatment adherence, and increased HIV-related morbidity and mortality in underserved communities. The interplay of geographic isolation and socioeconomic disadvantage creates a synergistic barrier where the impact of each factor is magnified by the presence of the other, implying that simply building more clinics will be insufficient if transportation costs or lost wages from travel remain prohibitive for the poorest populations.

Insufficient Sexual and Reproductive Health Education

A significant barrier to effective HIV prevention in Nepal is the lack of comprehensive, culturally relevant, and age-appropriate sexual and reproductive health (SRH) education. The existing curricula in many schools are either outdated, inadequate, or inconsistently implemented, leaving adolescents and young adults without the knowledge necessary to make informed decisions regarding their sexual health. This knowledge gap is particularly pronounced among key populations, such as adolescents, sexual minorities, and individuals from rural or conservative communities, where social taboos often restrict open discussion of sexuality and HIV transmission. As a result, misinformation and myths about HIV persist, contributing to risky sexual behaviors, low rates of voluntary testing, and

delayed diagnosis. This educational deficit not only impacts individual knowledge but also reinforces societal stigma and silence around HIV, creating a feedback loop where lack of education perpetuates stigma, which in turn inhibits open dialogue and effective public health messaging.

Service Gaps for Migrant Workers

Migrant workers constitute a high-risk group in Nepal's HIV epidemic due to their increased vulnerability during overseas employment and upon return. Many migrants engage in unprotected sexual activities while abroad, often driven by social isolation, peer pressure, or limited access to preventive services, placing them at elevated risk of HIV transmission. Crucially, Nepal's current HIV response lacks comprehensive, migrant-sensitive interventions, including pre-departure education, routine HIV testing, and post-return reintegration support. As a result, infections acquired abroad frequently go undiagnosed or untreated, increasing the likelihood of intra-familial and community-level transmission. The failure to provide adequate services for migrant workers represents a significant leakage point in the national HIV response, allowing infections acquired abroad to re-seed the epidemic within Nepal, particularly impacting vulnerable family members.

Limited Community Engagement and Outreach

A persistent limitation in Nepal's HIV response is the insufficient engagement of affected communities in the design, implementation, and monitoring of programs. Many interventions continue to be structured through top-down approaches, neglecting the active participation of people living with HIV (PLHIV), key populations, and grassroots stakeholders. This exclusion weakens local ownership, undermines trust in health service delivery, and hampers the cultural and contextual relevance of HIV-related programs. Without community input, efforts to reduce stigma, improve treatment adherence, and promote prevention strategies often fail to reach the most vulnerable groups effectively. Furthermore, the lack of participatory mechanisms reduces program sustainability, as community actors are not empowered to lead or co-create solutions. The limited community engagement represents a missed opportunity for leveraging local knowledge and social capital, signifying a fundamental disconnect between policy formulation and ground-level realities.

Resource Constraints and Fragmented Policy Coordination

The effective implementation of HIV/AIDS strategies in Nepal is significantly hampered by resource limitations and policy-level inefficiencies. Despite commitments outlined in national health plans, the availability of financial and human resources remains

inadequate to meet the growing demand for prevention, treatment, and support services. Funding shortages affect the sustainability of antiretroviral therapy (ART) programs, outreach initiatives, and HIV awareness campaigns, particularly in rural and high-risk settings. Furthermore, there is a marked shortage of trained healthcare personnel, especially those skilled in HIV-sensitive and non-discriminatory care delivery. Compounding these resource constraints are institutional and policy gaps, including the lack of effective coordination between governmental agencies, civil society organizations, and international partners. This fragmentation often leads to overlapping responsibilities, inefficient resource allocation, and missed opportunities for synergistic interventions. The fragmentation of policy and coordination, coupled with resource constraints, creates a bottleneck that prevents even well-designed interventions from achieving their full potential, suggesting that structural and governance reforms are as crucial as direct programmatic funding.

Conclusion

Nepal's response to the HIV/AIDS epidemic has indeed yielded measurable progress over the past decades, characterized by the decentralization of antiretroviral therapy (ART) services, increased testing coverage, and strengthened coordination with global health partners. However, the persistent presence of systemic and structural barriers continues to impede the realization of equitable and sustainable outcomes, particularly among key and marginalized populations such as migrant workers, female sex workers, transgender individuals, and people who inject drugs (PWID). Social stigma and discrimination remain deeply entrenched, profoundly undermining individual willingness to seek diagnosis and adhere to long-term treatment. Geographic and socioeconomic disparities in service delivery further exacerbate inequities in access to prevention, care, and support. Moreover, the inadequate dissemination of comprehensive, culturally relevant sexual and reproductive health information limits awareness, particularly in rural and underserved communities, contributing to late diagnoses and avoidable transmissions. The emphasis on a "paradigm shift" from purely biomedical interventions to "inclusive, community-centered, and rights-based strategies" is a critical understanding, as it implies that past approaches, while achieving some success, have reached their limits because they did not adequately address the social and structural determinants of health.

To effectively curb the epidemic and ensure the long-term sustainability of the national HIV response, a fundamental shift in approach is required one that transcends purely biomedical interventions to embrace inclusive, community-centered, and rights-based strategies. This necessitates strengthening community engagement, expanding peer-led

outreach programs, investing robustly in stigma reduction efforts, and ensuring the meaningful involvement of people living with HIV (PLHIV) in both policy formulation and service delivery. Additionally, the integration of HIV services within broader primary healthcare systems and social protection frameworks is critical to addressing the complex, intersecting vulnerabilities that shape HIV risk and care outcomes in Nepal. Ultimately, a multisectoral and equity-oriented approach, firmly grounded in human rights and public health principles, is essential not only to achieve national HIV targets but also to uphold the dignity, health, and well-being of all affected individuals and communities.

Recommendations

In light of the multifaceted challenges identified in Nepal's ongoing response to the HIV/AIDS epidemic, the following evidence-based and context-specific recommendations are proposed to enhance prevention, care, and support outcomes:

Expand Community-Based Awareness and Testing Initiatives: HIV testing and awareness campaigns should be decentralized and meticulously tailored to effectively reach rural, remote, and marginalized populations. This can be achieved through the implementation of mobile clinics, peer-led outreach programs, and seamless integration into existing community health systems. These strategies are designed to significantly reduce barriers related to geography, pervasive stigma, and limited health infrastructure, ensuring services are accessible where they are most needed.

Integrate Comprehensive Sexual and Reproductive Health Education: The systematic incorporation of age-appropriate, culturally sensitive, and scientifically accurate sexual and reproductive health education into formal school curricula and public health messaging is essential. Such education should aim comprehensively to dispel persistent myths about HIV transmission, actively promote safer sexual practices, and strongly encourage voluntary testing, particularly among adolescents and other at-risk groups. This approach addresses the root cause of misinformation and empowers individuals with knowledge for informed decision-making.

Strengthen Stigma-Reduction and Anti-Discrimination Interventions: Public health communication strategies must include targeted stigma-reduction efforts, effectively utilizing mass media, facilitating community dialogue forums, and implementing rigorous training for healthcare providers. Empowering individuals living with HIV to actively participate in advocacy and service design can further normalize HIV discourse and effectively challenge harmful social norms, fostering an environment of acceptance and support.

Develop Targeted Interventions for Migrant Populations: A comprehensive, migration-sensitive HIV strategy is imperative. This should encompass mandatory pre-departure orientation programs focusing explicitly on HIV prevention, risk reduction, and access to care abroad. Furthermore, robust reintegration programs for returnee migrants must ensure post-arrival voluntary testing, comprehensive psychosocial support, and seamless treatment linkage, thereby critically reducing intra-family and community-level transmission and addressing a significant leakage point in the national response.

Enhance Surveillance, Research, and Data-Driven Policy-Making: Strengthening routine epidemiological surveillance and investing strategically in operational and behavioral research are critical for informing evidence-based policy decisions. The collection and analysis of disaggregated data on key populations and regional disparities will specifically support the development of responsive, evidence-based programming and facilitate robust monitoring of progress toward national and global HIV targets. This recommendation is crucial for the sustainability and adaptability of the national response, ensuring that interventions remain dynamic and evidence-informed in the face of an evolving epidemic.

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