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Stigma and Discrimination Against People Living with HIV in Dental Care: A Field Study of Dentists' Practices and Patients' Experiences of Concealing Their HIV Status in Mashhad

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Original Article

Abstract

Background and aim: Despite advances in HIV prevention and treatment, stigma and discrimination against People Living with HIV (PLHIV) remain pervasive within healthcare settings, particularly in dental care. This study explored the multilayered processes of exclusion and concealment experienced by PLHIV in dental services, with a particular focus on the discrepancy between dentists' professional knowledge and clinical practice and the lived experiences of patients in Mashhad, Iran.

Data and method: A qualitative field study was conducted using two complementary components. First, participant observation was employed to examine the clinical practices of 55 dentists across three socioeconomic districts of Mashhad under real-world conditions, with the researcher presenting as a person living with HIV. Second, semi-structured interviews were conducted with eight PLHIV recruited through a Behavioral Diseases Counseling Center. Observational and interview data were analyzed using qualitative content analysis.

Findings: Of the 55 dentists observed, 38 demonstrated exclusionary practices by refusing treatment or referring patients elsewhere. Exclusion was most prevalent in the high socioeconomic district and least common in the low socioeconomic district. Referral to designated treatment centers emerged as the dominant exclusionary practice, often resulting in prolonged treatment-seeking pathways. Interview findings indicated that fear of stigma, shame, anger, and hopelessness shaped patients' experiences following HIV diagnosis. Concealment of HIV status functioned as a strategy for balancing the need for treatment against anticipated discrimination. While supportive institutional environments enhanced quality of life and social participation, discriminatory experiences within healthcare, family, educational, and occupational settings reinforced concealment and internalized stigma.

Conclusion: The exclusion of PLHIV from dental care reflects not technical limitations but the social construction of HIV, a persistent knowledge–practice gap among dental professionals, and deficiencies in health policy and regulatory oversight. Strengthening regulatory mechanisms, implementing simulation-based practical training for healthcare providers, and reinforcing anti-discrimination policies are essential to reducing institutional stigma and improving equitable access to dental care.

Keywords: HIV/AIDS; People Living with HIV (PLHIV); Dentists; Dental Care; Stigma; Discrimination; Concealment; Health Services.

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Introduction

Acquired Immunodeficiency Syndrome (AIDS) is caused by infection with the Human Immunodeficiency Virus (HIV). According to the latest estimates from the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS), approximately 40.8 million people were living with HIV worldwide at the end of 2024, while an estimated 1.3 million individuals acquired the infection during the same year (World Health Organization, 2025). Despite substantial advances in treatment, HIV remains one of the world's most significant public health challenges (Wendt et al., 2025). Because HIV transmission is commonly associated with injection drug use and high-risk sexual behaviors, infection continues to be perceived in many social contexts as evidence of moral transgression and as a stigmatized condition. These socially constructed perceptions reinforce unwarranted fear and prejudice, intensifying the challenges that People Living with HIV (PLHIV) face in their interactions with society.

HIV-related stigma is widely recognized as one of the most significant barriers to accessing healthcare services. Patients may experience blame and shame through judgmental attitudes, stigmatizing labels, intrusive questioning about the mode of HIV acquisition, avoidant or overly cautious behaviors by healthcare professionals, refusal of care, unemployment, or even dismissal from work. Such experiences often foster social withdrawal and avoidance behaviors among PLHIV. Within healthcare settings, stigma and discrimination contribute to feelings of vulnerability, humiliation, and marginalization, encouraging concealment of HIV status and restricting access to essential health services. Fear of rejection by healthcare providers increases patients' reluctance to disclose their HIV status, and many choose to avoid seeking medical care altogether—even at the expense of their physical and psychological well-being—to escape social stigmatization (Childers et al., 2024).

Equal access to healthcare is a fundamental right and an ethical obligation within all health systems. Dental care constitutes an essential component of healthcare and should therefore be provided equitably to all individuals. Nevertheless, inadequate knowledge among some dentists regarding HIV transmission and the appropriate management of People Living with HIV (Jafari, Khami, Yazdani, & Mohammadi, 2009; Rabiei & Kazemnejad Leili, 2012) continues to undermine the provision of equitable care. Consequently, many dentists remain reluctant to treat PLHIV, frequently referring them to specialized centers and, in many cases, avoiding the provision of dental treatment altogether (Giuliani et al., 2023).

This situation persists despite the principle of universal precautions, which requires all dental practices to implement standardized infection prevention and control measures for every patient, regardless of known infection status. When these protocols are correctly implemented, disclosure or nondisclosure of HIV status should not affect the safety of dental care. In practice, however, a substantial gap remains between these professional standards and the actual behaviors of healthcare providers.

Against this background, the present study investigates the multilayered processes of exclusion and concealment experienced by People Living with HIV in dental care by integrating two complementary perspectives: direct observation of dentists' clinical practices and an analysis of patients' lived experiences. Specifically, the study addresses the following questions: How does the process of exclusion of People Living with HIV emerge within dental care settings? How do dentists respond to patients living with HIV in real clinical encounters, particularly in terms of treatment acceptance, referral, or refusal? How do People Living with HIV describe their experiences of acceptance or exclusion by family members, the broader community, and healthcare professionals? Through this framework, the study seeks to identify the gap between dentists' theoretical knowledge and clinical practice, uncover the psychosocial mechanisms underlying patients' concealment of HIV status, and examine the role of structural factors—including supportive policies and educational institutions—in either reinforcing or mitigating discrimination within healthcare. Ultimately, the findings aim to inform evidence-based health policies and promote more empathetic and equitable training for healthcare professionals.

Literature Review and Theoretical Considerations

To identify relevant evidence, published Persian and international studies were searched using the keywords *People Living with HIV/AIDS*, *dentists*, *healthcare utilization*, and *dental care utilization*. Studies were screened according to language, relevance to the research topic, and availability of full-text articles. The literature was subsequently organized into four thematic domains.

Psychological and Social Dimensions of Living with HIV

In a descriptive cross-sectional study involving 1,666 People Living with HIV (PLHIV) across Brazil, Wendt (2025) employed standardized measures of HIV stigma, internalized AIDS-related stigma, and the Patient Health Questionnaire (PHQ) to examine the effects of age, gender, duration of HIV infection, and stigma on symptoms of depression and anxiety. Their findings demonstrated that gender and internalized stigma, independent of age and years since diagnosis, were significant predictors of anxiety. Anxiety symptoms were most prevalent among transgender participants, followed by cisgender women, and least common among cisgender men. The study concluded that psychosocial factors and gender identity, rather than clinical characteristics, constitute the primary determinants of mental health outcomes among PLHIV (Wendt et al., 2025).

In Iran, Elmi et al. (2024) conducted a quasi-experimental pretest–posttest study with a three-month follow-up involving 60 HIV-positive patients recruited from Imam Khomeini Hospital in Tehran. Participants were assigned to schema therapy, compassion-focused therapy, or a control group. Repeated-measures mixed analyses revealed that both therapeutic approaches significantly reduced self-criticism and HIV-related stigma, with no statistically significant difference between the two interventions (Elmi et al., 2024).

Other Iranian studies have consistently shown that shame and internalized stigma are among the principal mechanisms sustaining psychological distress among PLHIV. These processes are

associated with negative emotional reactions to stigma, maladaptive coping behaviors, diminished self-esteem, social withdrawal, hostility, and anger toward society (Behrovan, Noghani, & Abachi, 2011; Mollaesmaeil Shirazi, Nourbakhsh, & Mahraz, 2012; Masoudnia & Chenani, 2016; Cheraghi, Esmaeilinasab, & Rasoulzadeh Tabatabaei, 2016). Closely linked to these psychological consequences, fear of stigma and social discrimination has been identified as one of the strongest predictors of HIV status concealment (Mollaesmaeil Shirazi et al., 2012). Previous research further indicates that concealment is associated with negative emotional responses to stigma, maladaptive coping, lower self-esteem, social isolation, and hostility toward others (Jiménez, 2011; Masoudnia & Chenani, 2016; Cheraghi et al., 2016). Persistent concealment in everyday life disrupts adaptive functioning, increases social isolation, fosters resentment toward society, and, at the population level, may increase the risk of HIV transmission.

HIV-Related Stigma and Social Exclusion

In a comprehensive systematic review and meta-analysis published in *Frontiers in Public Health*, Desy and Zwotir (2024) searched six major databases through April 2023 and synthesized findings from 40 studies involving 171,627 PLHIV. Using mixed-effects models, they found that stronger social support, higher educational attainment, better socioeconomic status, and greater HIV-related knowledge were significantly associated with lower levels of stigma. Conversely, depression, rural residence, female gender, and nondisclosure of HIV status were associated with increased stigma. Across the included studies, the prevalence of HIV-related stigma ranged from 19% to 88% (Desy & Zwotir, 2024).

In another cross-sectional study, Groszczyńska and Rzeszutek (2023) assessed HIV-related stigma among 663 adults receiving antiretroviral therapy using the Berger HIV Stigma Scale. Logistic regression analyses demonstrated that heterosexual orientation was associated with higher overall stigma. Interpreting these findings through the General and Relative Minority Status Theory, the authors argued that heterosexual individuals with HIV may internalize stigma more strongly because they do not perceive HIV as consistent with a pre-existing minority identity. Heterosexual women reported the highest levels of disclosure-related stigma (Groszczyńska & Rzeszutek, 2023).

Within the Iranian context, previous studies have shown that limited public knowledge regarding HIV and its modes of transmission plays a central role in social exclusion, social deprivation, and restricted access to healthcare services (Anthony & Koboda, 2012; Behrovan et al., 2011; Rabiei & Kazemnejad Leili, 2012). Criminalizing and discriminatory attitudes toward PLHIV not only undermine prevention efforts but may also contribute to increased HIV transmission (Mollaesmaeil Shirazi et al., 2012). Other studies have documented both quantitative and qualitative deterioration in patients' social relationships as a consequence of discrimination (Shokouhi & Darkesh, 2013). Among marginalized populations, particularly people who use drugs, HIV-related stigma compounds pre-existing social stigma, creating a "double stigma" that further intensifies social exclusion (Deng, 2007).

Importantly, HIV-related stigma extends beyond the broader community into healthcare settings. Studies conducted in Iran have consistently reported high levels of refusal of care, discriminatory

attitudes, and patient referral among dentists treating PLHIV (Omidpanah & Saheifar, 2015; Rabiei & Kazemnejad Leili, 2012; Jafari et al., 2009). This finding is particularly concerning because dentists, by virtue of their professional education, would be expected to possess greater knowledge regarding HIV than the general population.

Methodologically, however, most existing studies have relied on self-administered questionnaires to assess dentists' attitudes, referral practices, and willingness to treat PLHIV. Given the socially sensitive and normative nature of HIV, questionnaire-based studies are especially vulnerable to response bias and social desirability bias. Consequently, the actual prevalence of treatment refusal and discriminatory referral practices may be substantially higher than reported. This discrepancy between stated attitudes and observed clinical behavior represents a major methodological gap in the existing literature, highlighting the need for observational and behavioral research approaches.

Structural Determinants and Legal Frameworks Shaping HIV Care

Karam et al. (2024) examined structural determinants of HIV care using the Oregon HIV Social Determinants of Health Index together with data from the Centers for Disease Control and Prevention's Medical Monitoring Project. Adjusted prevalence ratios and marginal means were estimated after controlling for age, race/ethnicity, and gender/sexual orientation. Compared with individuals experiencing zero or one social challenge, participants with four or more structural challenges were 2.57 times more likely to miss HIV care appointments (adjusted prevalence ratio [aPR] = 2.57), 4.03 times more likely to report depressive symptoms (aPR = 4.03), and 3.55 times more likely to experience anxiety (aPR = 3.55). Complete adherence to antiretroviral therapy was also significantly lower (aPR = 0.62). These findings underscore the need for interventions addressing both structural and clinical determinants of HIV care (Karam et al., 2024).

Alongside these structural determinants, legal and policy frameworks constitute another important dimension of HIV-related inequality. The HIV Justice Network (2024), in its annual report documenting legal cases from 20 countries, recorded 65 HIV criminalization cases during 2024, compared with 57 in 2023. Russia reported the highest number of cases (26), followed by the United States (11). At the same time, the report highlighted significant legal advances, including a ruling by the European Court of Human Rights that compulsory HIV testing and public exposure of sex workers in Greece violated fundamental human rights, and a Kenyan court's dismissal of charges alleging intentional HIV transmission through spitting into food (HIV Justice Network, 2024).

Within Iran, available evidence suggests that criminalizing attitudes among healthcare providers reflect broader legal and cultural structures that reproduce institutional discrimination against PLHIV (Mollaesmaeil Shirazi et al., 2012; Rabiei & Kazemnejad Leili, 2012).

Psychosocial and Educational Interventions for Prevention, Support, and Stigma Reduction

In a review article published in *The Lancet HIV*, Operario et al. (2022) synthesized international evidence on the syndemic relationship between HIV and mental health among men who have sex with men across North America, Western Europe, parts of Asia, and Latin America. Guided by Minority Stress Theory, the review concluded that chronic exposure to sexual minority stigma contributes to psychological distress, pressure to conceal identity, social isolation, and maladaptive coping behaviors. The authors advocated integrated interventions simultaneously targeting depression, anxiety, trauma, and HIV risk among men who have sex with men worldwide (Operario et al., 2022).

Similar patterns have been observed among marginalized populations in Iran, where HIV-related stigma interacts with existing social disadvantages, particularly among people who use drugs, resulting in a "double stigma" that substantially compounds social exclusion (Deng, 2007). These findings closely align with the syndemic perspective proposed in the international literature.

Regarding educational interventions, Jalali et al. (2023) conducted a randomized field trial involving 200 secondary school teachers in Ahvaz, who were randomly assigned to intervention (n = 100) and control (n = 100) groups. The intervention consisted of easy-to-read educational materials on HIV/AIDS. HIV literacy was assessed before and after the intervention, demonstrating significant improvements among teachers receiving the educational materials. Because teachers serve as important educational intermediaries, improving their HIV literacy may indirectly enhance HIV awareness among adolescents (Jalali et al., 2023).

Other Iranian studies similarly indicate that inadequate public knowledge regarding HIV and its transmission not only contributes to stigma and discrimination but also undermines prevention efforts (Anthony & Koboda, 2012; Behrovan et al., 2011; Rabiei & Kazemnejad Leili, 2012). From this perspective, improving HIV literacy represents not merely an educational intervention but also a direct strategy for reducing social exclusion and strengthening HIV prevention.

Although a substantial body of research has examined HIV-related stigma and its consequences, the literature demonstrates that most previous studies have focused either on patients' self-reported experiences or on healthcare providers' stated attitudes. While these approaches have enhanced understanding of subjective perceptions, relatively little research has examined dentists' actual behavior during real clinical encounters, where decisions regarding treatment acceptance, referral, or refusal are made. Furthermore, the predominant reliance on questionnaire-based methods—particularly in the context of a socially sensitive issue such as HIV—introduces the possibility of response bias and socially desirable reporting, thereby obscuring the gap between expressed attitudes and actual clinical practice. By directly observing dentists' behaviors in authentic clinical settings and integrating these observations with the lived experiences of People Living with HIV, the present study seeks to address this important methodological and empirical gap. In doing so, it aims to provide a more accurate understanding of the mechanisms through which stigma and exclusion operate in dental care and to generate evidence capable of informing educational interventions, professional practice, and health policy.

Conceptual Framework

The concept of *stigma* originally referred to visible bodily marks used to identify individuals as morally tainted, such as criminals or traitors. In contemporary sociology, the term denotes attributes or behaviors that society defines as undesirable or socially discrediting. According to Goffman (1963), individuals possessing stigmatized characteristics seek to protect both themselves and their identities primarily by managing information about themselves through concealment. Stigma is closely associated with shame arising from failure to meet socially defined expectations and with the fear of becoming socially discredited.

Goffman (1963) distinguished between **discredited stigma**, in which the stigmatizing characteristic is immediately visible to others, and **discreditable stigma**, in which the characteristic remains concealable but its potential disclosure generates persistent anxiety. Within this framework, the concept of *passing* occupies a central role, referring to efforts by stigmatized individuals to blend into the "normal" population by concealing the stigmatized attribute. HIV represents a paradigmatic example of a discreditable stigma because individuals living with HIV continually face the possibility of unwanted disclosure.

Complementing Goffman's work, Becker's Labeling Theory provides an additional framework for understanding the social construction of exclusion. Becker argued that deviance is not an inherent characteristic of an act but rather a social label imposed upon individuals. Behavior becomes deviant only when others define it as such. According to this perspective, social groups construct deviance through two interrelated processes: first, by establishing rules that distinguish acceptable from unacceptable behavior, and second, by applying those rules selectively to particular individuals, thereby labeling them as outsiders when they violate socially defined norms (Becker, 1963).

Although Goffman's and Becker's theories established the foundations of stigma research, Link and Phelan (2001) argued that these classical perspectives focus primarily on individual and interpersonal processes while insufficiently addressing the role of social, economic, and political power. Their structural theory conceptualizes stigma as the convergence of five interconnected components: labeling human differences, associating those differences with negative cultural stereotypes, separating labeled individuals into an "us" versus "them" distinction, producing status loss, and ultimately generating discrimination. Crucially, these processes become possible only when individuals or institutions possess sufficient social, economic, or political power. Without such power, labeling cannot produce systematic exclusion or discrimination.

This structural conceptualization is particularly relevant for understanding the unequal power relationship between dentists and People Living with HIV. Because dentists occupy positions of professional authority, possess specialized knowledge, and control access to treatment, they exercise institutional power that enables them to refuse care, refer patients elsewhere, or engage in discriminatory practices. Patients, by contrast, generally lack equivalent power to challenge such decisions.

To explain the psychosocial mechanisms of HIV-related stigma more specifically, Earnshaw and Chaudoir (2009) proposed the HIV Stigma Framework, which distinguishes among three forms of stigma: **enacted stigma**, referring to actual experiences of discrimination, rejection, and negative treatment because of HIV; **anticipated stigma**, referring to expectations of future discrimination; and **internalized stigma**, referring to the acceptance of society's negative beliefs by individuals living with HIV themselves. Each mechanism has distinct consequences for psychological, behavioral, and physical health. Internalized stigma is closely associated with emotional outcomes such as feelings of worthlessness, whereas enacted stigma has been linked to adverse physical health outcomes, including compromised immune functioning (Earnshaw, Smith, Chaudoir, Amico, & Copenhaver, 2013).

By integrating Goffman's theory of stigma, Becker's Labeling Theory, Link and Phelan's structural theory of stigma, and Earnshaw and Chaudoir's HIV Stigma Framework, the present study examines the multilayered process of exclusion experienced by People Living with HIV across three interconnected levels of analysis. At the **macro level**, the study considers cultural labeling and structurally embedded stigma within society. At the **meso level**, it examines institutional and professional power asymmetries between dentists and patients through the lens of structural stigma. At the **micro level**, it investigates enacted, anticipated, and internalized stigma as reflected in patients' lived experiences during clinical encounters. This integrated conceptual framework enables the simultaneous interpretation of dentists' observed behaviors and patients' lived experiences within a coherent and theoretically grounded model of HIV-related stigma and discrimination.

Methods

This study employed a qualitative field research design to investigate the mechanisms underlying stigma, discrimination, and exclusion experienced by People Living with HIV (PLHIV) in dental care. To obtain a comprehensive understanding of these processes, two complementary qualitative methods were used: (1) direct observation of dentists' behaviors in authentic clinical settings and (2) semi-structured interviews with PLHIV to explore their experiences of seeking dental care. The integration of these methods enabled simultaneous examination of healthcare providers' practices and patients' lived experiences.

Observation

The observational component was conducted using participant observation to document the real-world behaviors of 55 dentists during routine clinical practice. Mashhad was stratified into three districts representing high, middle, and low socioeconomic status based on socioeconomic indicators. Dental clinics and private practices within these districts were selected through convenience sampling, and dentists' responses to patients were observed under natural clinical conditions.

In this phase, disclosure of HIV status was introduced as a situational variable to assess dentists' actual clinical responses. The primary objective was to examine whether patients were accepted for

treatment, referred elsewhere, or refused care, as well as to document the verbal and nonverbal behaviors of dentists and other clinical staff. The researcher attended each dental clinic or private practice as a patient seeking root canal treatment and informed the receptionist or admission staff that they were living with HIV, requesting that this information be communicated to the attending dentist. The dentist's subsequent response served as the primary indicator of acceptance, referral, or exclusion of a person living with HIV under routine clinical conditions.

Interviews

To gain a deeper understanding of patients' lived experiences, semi-structured interviews were conducted with People Living with HIV. Participants were purposively recruited through the Behavioral Diseases Counseling Center in Mashhad during a two-month period (November–December 2018). Eligibility criteria included being at least 18 years of age, having a confirmed HIV diagnosis documented in the counseling center's medical records, and having previously attended a dental clinic or private dental practice for treatment.

To ensure procedural consistency, all interviews were conducted by the same researcher. Interview locations were selected according to participants' preferences to maximize comfort and facilitate open discussion, and recruitment continued until theoretical saturation was achieved. Of the eight interviews conducted, six took place in a private room provided by the Behavioral Diseases Counseling Center, while two were conducted in a private room at the Faculty of Education and Psychology, Ferdowsi University of Mashhad. Before each interview, participants were informed about the study objectives and the importance of the research in order to establish rapport and foster trust.

Among the eight participants, three were women and five were men. Participants ranged in age from 24 to 55 years, with a mean age of 37 years. Routes of HIV acquisition varied and included mother-to-child transmission, transmission from an HIV-positive spouse, sharing needles during injection drug use, and tattooing with contaminated needles. All participants were residents of Mashhad and were invited to participate through the Behavioral Diseases Counseling Center.

Interviews began with broad, open-ended questions, such as *"When did you first learn about your HIV diagnosis?"* and *"What was your initial reaction?"* Depending on the participant's responses and level of comfort or defensiveness, between two and seven introductory questions were asked. The interviews then proceeded to seven semi-structured questions exploring participants' experiences with healthcare providers, particularly dentists. Examples included: *"What was your experience when seeking dental care after your HIV diagnosis?"*, *"How did the dentist respond after learning about your HIV status?"*, and *"Based on your previous experiences, do you consider it necessary to disclose your HIV status when visiting a dentist?"* Each interview lasted approximately 45–60 minutes. At the conclusion of each interview, participants were provided with the researcher's contact information should they wish to share additional information or request further communication.

Data Analysis

Interview data were analyzed using qualitative content analysis to develop an in-depth understanding of the processes of stigma and labeling experienced by People Living with HIV. Content analysis was used to identify, summarize, classify, and interpret patterns within the textual data, while also revealing latent meanings embedded in participants' narratives (Momenirad, Aliabadi, Fardanesh, & Mazini, 2013). Data analysis involved systematic comparison of similarities and differences across interviews, followed by conceptual categorization. Coding proceeded through the stages of open, axial, and selective coding in accordance with the procedures proposed by Strauss and Corbin (1998).

Ethical Considerations

Written informed consent was obtained from all interview participants before data collection. Participants were informed of their rights, including the confidentiality of all personal information, their right to receive information about the study findings, and their right to withdraw from the study at any stage without consequence. Participants were also informed that interviews would be audio-recorded; however, the recordings would be accessible only to the researcher and all findings would be reported anonymously without any identifying personal information.

Findings

1. Observational Findings

Direct observation of dentists' practices across three socioeconomic districts of Mashhad provides a clear picture of how the dental care system responded to People Living with HIV (PLHIV) within the study sample. Of the 55 dentists observed under routine clinical conditions, only 17 agreed to perform the requested root canal treatment after learning of the patient's HIV status, whereas 38 exhibited exclusionary behavior by either refusing treatment or referring the patient elsewhere.

The distribution of these responses varied across the city's socioeconomic districts. The highest level of exclusion was observed in District 1, the area with the highest socioeconomic status, where 14 of the 17 dentists declined to provide treatment. In District 2, 17 of the 23 dentists also refused treatment. In contrast, District 3, representing the lowest socioeconomic stratum, demonstrated the lowest level of exclusion: only seven of the 15 dentists refused care, with acceptance slightly exceeding refusal. Several factors—including differences in professional knowledge, previous experience treating vulnerable populations, patient volume and workload, and the broader social and cultural contexts of each district—may have contributed to these variations. However, these explanations require further investigation.

Gender differences were also noteworthy within this sample. Among the 17 female dentists observed, only one agreed to treat the patient after disclosure of HIV status.

The predominant response among dentists who declined treatment was referral to facilities designated for the care of People Living with HIV. Most referrals directed the researcher either to a particular private dental clinic or to the Dental School Clinic of Ferdowsi University of Mashhad. However, the researchers' subsequent visits revealed that only the Dental School Clinic accepted the patient and agreed to provide root canal treatment after disclosure of HIV status. The private clinic to which patients were frequently referred also refused treatment after learning of the diagnosis and again referred the patient elsewhere. This pattern of repeated referral and refusal may place patients in a cycle of prolonged treatment seeking, delaying access to appropriate dental care.

Although referral to specialized or university-based facilities may appear to represent a responsible clinical decision, concentrating the provision of dental care for PLHIV within only one or two centers may generate substantial clinical and social consequences, including limited-service capacity, longer waiting times, and increased patient burden. Under such circumstances, previous experiences of rejection may further discourage patients from disclosing their HIV status during future healthcare encounters. Nevertheless, responsibility for preventing occupational transmission of infection rests primarily with healthcare institutions and providers through strict adherence to universal (standard) precautions for all patients, irrespective of whether HIV status has been disclosed.

During brief conversations following treatment refusal, the most frequently cited reasons offered by dentists were "insufficient facilities for sterilizing equipment" and "fear of HIV transmission through dental instruments." These explanations contrast with established professional guidelines, which require all dental practices to apply standard infection prevention and control measures uniformly to every patient, regardless of infection status. The emphasis on special sterilization procedures specifically for patients living with HIV, rather than deficiencies in existing infection control infrastructure, may therefore reflect the social construction of HIV as an exceptionally dangerous and fundamentally different disease. Such perceptions appear to be rooted in broader cultural, educational, and policy contexts rather than solely in the individual attitudes of dentists.

By contrast, the dentists who accepted treatment demonstrated a markedly different clinical approach. These practitioners assumed that any patient could potentially carry a blood-borne infection and therefore applied standard infection prevention measures consistently to all patients. Their practices were equipped to provide appropriate sterilization procedures and disposable instruments when required. Their interactions with the patient were characterized by professionalism, respect, empathy, and reassurance—an approach that not only reduced patients' emotional distress but also reflected sound infection control practice.

Overall, these observations suggest that, within the present sample, exclusion of People Living with HIV from dental care cannot be explained solely by technical or clinical limitations. Rather, it appears to result from the interaction of individual, institutional, and structural factors, including dentists' fears and subjective perceptions, professionally acquired patterns of practice, and broader

deficiencies in health policy and regulatory oversight. To better understand these processes and their consequences for patients, the second phase of the study explored the lived experiences of People Living with HIV through qualitative interviews, the findings of which are presented in the following section.

2. Interview Findings

To gain a deeper understanding of the processes of exclusion, discrimination, and stigma experienced by People Living with HIV (PLHIV) within the healthcare system, qualitative interviews were conducted with eight participants. Analysis of the interview data revealed that experiences of stigma and exclusion are not confined to a single level of social reality; rather, they are produced and reproduced through interconnected layers of individual experience, interpersonal interactions, and institutional structures. At the individual level, these experiences are reflected in patients' lifeworlds through the internalization of stigma, the reconstruction of personal identity, and the adoption of strategies such as concealment or disclosure of HIV status. At the interpersonal level, social relationships and dominant cultural norms reinforce stereotypes and behavioral expectations that shape opportunities for disclosure or compel concealment. At the institutional level, particularly within healthcare encounters, the actions of healthcare professionals emerge as a critical factor that can either reinforce or interrupt this cycle of exclusion.

Table 1. Main themes and categories identified through qualitative content analysis

Theme	Main Categories
Patients' lifeworld and internalized stigma	Intense negative emotional experiences; Sense of responsibility toward family and society; Concealment of HIV status
Interactive patterns of exclusion and stereotypical constructions	Supportive management of HIV within society; Unsupportive management of HIV within society
Institutional reproduction of exclusion in healthcare settings	Consequences of HIV status disclosure; Unprofessional behaviors of healthcare providers; Professional behaviors of healthcare providers

Patients' Lifeworld and Internalized Stigma

Participants' responses toward their families and society were shaped by profound emotional distress, a strong sense of social responsibility, and the consequences of HIV-related stigma. Following diagnosis, participants described experiencing a wide spectrum of intense negative emotions. Their everyday lives were characterized by persistent fear: fear of transmitting HIV to spouses or family members, fear of rejection, loneliness, moral judgment, humiliation, and stigmatization. For some participants, these experiences evolved into anger, resentment toward society, and feelings of hopelessness. In several cases, they reported suicidal ideation, suicide attempts, or thoughts of harming others. At this stage, stigma had moved beyond external

discrimination to become internalized, manifesting as shame, diminished self-worth, and reduced self-esteem. Participants described how society's negative perceptions gradually became incorporated into their own self-concepts, leading them to evaluate themselves through the lens of the very stigma imposed upon them.

One participant described this experience as follows:

"I kept thinking that I was worthless and should die... I tried many times to end my life, but I couldn't." (Male participant, 42 years)

Another emphasized the profound social burden associated with HIV:

"I would rather have had a disease worse than HIV—as long as I could tell people about it. This is a disease you simply cannot talk about." (Male participant, 50 years)

Despite this substantial psychological burden, participants consistently reported a strong sense of moral responsibility toward protecting both their families and the wider community. Educating others about HIV transmission, practicing safer behaviors, experiencing guilt associated with concealment, and believing that public awareness could prevent transmission emerged as recurring themes. Nevertheless, repeated experiences of stigma and discrimination—particularly when urgent healthcare, such as dental treatment, was required—placed participants in a profound moral dilemma. Faced with the need to alleviate physical pain while avoiding humiliation and rejection, many considered concealment of their HIV status to be their only practical option.

Analysis of the interviews identified two principal concealment strategies.

The first involved deliberate nondisclosure despite awareness of its ethical and public health implications. Participants adopting this strategy concealed their HIV status because of previous experiences of rejection and the immediate need for treatment, while simultaneously experiencing considerable guilt. As one participant explained:

"When the dentist found out, he told me to get up and leave. My tooth was hurting badly. I went to another dentist, and although I felt guilty, I said nothing—and he treated me." (Male participant, 42 years)

The second strategy involved transferring responsibility for infection prevention to healthcare professionals. Participants adopting this perspective believed that physicians and dentists, by virtue of their professional training, were responsible for implementing infection control measures for every patient and therefore considered disclosure unnecessary. One participant stated:

"I told myself that they were the ones who should follow the precautions... It wasn't my responsibility; it was theirs." (Male participant, 39 years)

This strategy not only reduced feelings of guilt but also reframed concealment as a rational and legitimate response within participants' own moral reasoning.

Interactive Patterns of Exclusion and the Social Construction of Stereotypes

Participants' narratives indicated that the social management of HIV strongly influenced decisions regarding disclosure or concealment. Supportive responses within institutions such as Behavioral Diseases Counseling Centers and community support organizations—through the provision of medication, counseling, education, and social support—facilitated greater acceptance within families and reduced feelings of exclusion and isolation. These supportive environments improved participants' quality of life and encouraged more active engagement in protecting both their own health and that of others.

Conversely, unsupportive responses within families, workplaces, and educational institutions rendered concealment an unavoidable coping strategy. Participants described experiences such as school expulsion, parental fears surrounding disclosure, and persistent concerns about moral judgment. One female participant recalled:

"Even though I was one of the top students, I was expelled from school because they found out I had AIDS." (Female participant, 24 years)

Participants repeatedly emphasized that the social stigma surrounding HIV—particularly its pervasive association with drug use and illicit sexual behavior—prevented honest conversations about their condition. Through reductive stereotypes and stigmatizing labels, society assigned them identities that overshadowed every other aspect of who they were. These socially constructed identities became mechanisms through which exclusion was continuously reproduced in everyday interactions.

Institutional Reproduction of Exclusion Within Healthcare Settings

Healthcare professionals emerged as key actors capable of either reinforcing or mitigating the processes of stigma and exclusion. Participants consistently reported that denial of healthcare services not only threatened their individual health but also generated broader public health consequences by encouraging concealment and potentially increasing the risk of HIV transmission. Accounts of canceled surgical procedures, repeated referrals, and being left untreated despite severe pain reflected what participants experienced as institutional exclusion.

Within outpatient services, particularly dental care, this institutional exclusion directly encouraged concealment of HIV status. Participants repeatedly described unprofessional behaviors by healthcare providers, including moral judgment, verbal and nonverbal humiliation, and repeated referrals without accepting responsibility for treatment. Such encounters generated intense anger, resentment, humiliation, and fear of seeking healthcare in the future. As one participant stated:

"The resentment I felt toward that doctor was so intense that, if I had the chance, I would have attacked him." (Male participant, 42 years)

By contrast, respectful and professional care produced a markedly different trajectory. Participants reported that when healthcare professionals responded with empathy, respect, and acceptance, they became more willing to disclose their HIV status during future healthcare encounters. These experiences fostered renewed hope, increased trust in healthcare providers, and strengthened their commitment to protecting both their own health and that of others. One participant described this transformative experience:

"The dentist said, 'It doesn't matter at all.' Then he put his hand on my shoulder. That single gesture gave me hope for treatment again." (Male participant, 42 years)

These findings demonstrate that healthcare providers' behaviors can represent the beginning of two fundamentally different pathways. Unprofessional and discriminatory responses initiate a cycle of concealment, mistrust, and increased public health risk. In contrast, respectful and professional care promotes trust, encourages voluntary disclosure, and supports more effective social and clinical management of HIV.

Discussion and Conclusion

The present study investigated the multilayered process of stigma, discrimination, and concealment among People Living with HIV (PLHIV) in dental care by integrating participant observation of dentists' behaviors with qualitative analysis of patients' lived experiences.

The observational findings revealed that, within this sample, a substantial majority of dentists demonstrated exclusionary behavior by refusing treatment or referring PLHIV to other facilities. Despite their presumed theoretical knowledge of standard infection control principles, these practitioners frequently chose referral over treatment, indicating a pronounced gap between professional knowledge and clinical practice. This finding is consistent with previous evidence from both Iran and other countries. Jafari, Khami, Yazdani, and Mohammadi (2009) reported that many final-year dental students, despite possessing adequate knowledge, preferred to refer PLHIV elsewhere rather than provide treatment. Similarly, Rabiei and Kazemnejad Leili (2012) documented comparable patterns among general dentists in Rasht. Internationally, McCarthy, Koval, and MacDonald (1999) found in a national Canadian survey that fear of occupational HIV transmission, rather than insufficient knowledge, was the principal reason for refusing treatment, while Giuliani et al. (2023) demonstrated that similar patterns continue to persist within European healthcare systems more than two decades later.

The distribution of exclusionary behavior across different socioeconomic areas of Mashhad also revealed notable variation. Dentists practicing in the more affluent district exhibited substantially

higher levels of patient rejection than those practicing in less advantaged areas. Although explaining this pattern lies beyond the scope of the present study, factors such as differences in patient volume, workload, previous experience with vulnerable populations, and local professional culture may contribute to these variations. The predominant response among dentists who declined treatment was referral to one or two designated centers, a practice that may increase waiting times and prolong patients' physical suffering. During brief conversations following treatment refusal, dentists most commonly justified their decisions by citing inadequate sterilization facilities and concerns about HIV transmission. However, given that universal precautions are designed to protect healthcare personnel regardless of patients' infection status, these explanations appear to reflect the social construction of HIV as an inherently "high-risk" and exceptional disease rather than genuine deficiencies in infection-control capacity.

It is important to emphasize that responsibility for infection prevention in healthcare settings rests with healthcare providers and institutions—not with patients' disclosure of their HIV status. When universal precautions are implemented consistently for all patients, disclosure or nondisclosure of HIV status should not affect clinical safety, nor should patient concealment constitute a significant occupational risk for healthcare personnel.

To understand this process beyond the observable behaviors of dentists, qualitative interviews explored patients' own perspectives. Participants described HIV diagnosis as initiating profound psychological distress characterized by fear of rejection, shame, anger, and feelings of hopelessness, which, in some cases, resulted in self-destructive or aggressive thoughts and behaviors. These findings align with a growing body of evidence indicating that psychosocial factors—particularly internalized stigma—are among the strongest determinants of mental health among PLHIV. Wendt, Chavez, and Costa (2025) similarly demonstrated that psychosocial factors, especially internalized stigma, are more predictive of psychological well-being than clinical characteristics, while Alami et al. (2024) reported that self-criticism and stigma substantially intensify psychological distress among Iranian PLHIV.

These findings can be interpreted through Earnshaw and Chaudoir's (2009) HIV Stigma Framework. Participants simultaneously experienced enacted stigma through direct discrimination by healthcare providers, anticipated stigma through expectations of future rejection, and internalized stigma manifested as shame and negative self-perceptions. Earnshaw, Smith, Chaudoir, Amico, and Copenhaver (2013) likewise demonstrated that these dimensions of stigma are associated with distinct psychological and physical health outcomes.

The concealment strategies identified in this study appear to represent understandable responses to both anticipated and enacted stigma. Two distinct patterns emerged. In the first, patients concealed their HIV status despite experiencing considerable moral conflict and guilt because previous experiences of rejection made disclosure appear more harmful than concealment. In the second, patients considered infection prevention to be the professional responsibility of healthcare providers and therefore regarded disclosure as unnecessary. Nevertheless, additional factors—including limited understanding of disclosure obligations, fears of broader social consequences, and individual psychological and cultural characteristics—may also shape disclosure decisions.

The social management of HIV also appears to be associated with patients' willingness to disclose or conceal their diagnosis. Participants who reported receiving social support through behavioral disease counseling centers and support organizations described better quality of life and greater engagement in self-care and social participation. In contrast, experiences of school expulsion, family rejection, and moral judgment in the workplace often led participants to adopt concealment as a preferred coping strategy. These findings are consistent with previous evidence showing that higher levels of social support, education, and socioeconomic status are associated with lower HIV-related stigma, whereas female gender, rural residence, and nondisclosure are associated with increased stigma (Dessie & Zewotir, 2024). They are also in line with the findings of Saeedi, Akbari, Fuladiyan, and Varshoui (2022), who demonstrated that the diagnosis of breast cancer is shaped not only by biomedical factors but also by social, cultural, and economic determinants, including social support, stigma, cultural beliefs, gender inequalities, and access to healthcare opportunities. Together, these findings highlight the pivotal role of social determinants of health in shaping patients' experiences of illness and their access to healthcare services.

From the perspective of Becker's (1963) labeling theory, these interactional processes illustrate how patients' identities become socially reconstructed through externally imposed labels. When individuals living with HIV are expelled from school or marginalized in the workplace, society redefines them as "outsiders," gradually transforming these labels into enduring components of their social identity. Within cultural contexts where HIV infection is strongly associated with substance use or sexual misconduct, such labeling carries profound moral implications extending beyond the illness itself. Under these circumstances, concealment functions as a form of "passing," as conceptualized by Goffman (1963), enabling individuals to avoid stigmatized identities by concealing their socially discrediting attribute.

Participants' accounts further highlighted the central role of healthcare professionals in either reinforcing or disrupting cycles of institutional stigma. Experiences of canceled surgical procedures, repeated referrals, verbal and nonverbal humiliation, and abandonment while in pain exemplify forms of institutional discrimination. Conversely, patients who encountered respectful, empathetic, and professionally competent healthcare providers reported increased trust, greater willingness to disclose their HIV status during subsequent encounters, and renewed optimism regarding their health. These findings correspond with those of Earnshaw et al. (2013), suggesting that supportive clinical interactions can substantially reduce enacted stigma and foster more constructive healthcare relationships.

Policy and Practical Implications

The findings suggest that reducing HIV-related discrimination within healthcare systems requires coordinated interventions at multiple levels. Structurally, stronger regulatory oversight, consistent enforcement of universal precautions, and the development or strengthening of anti-discrimination legislation protecting PLHIV are essential to reducing institutional discrimination. Educationally, practical simulation-based training should complement theoretical instruction for dental professionals to narrow the knowledge–practice gap identified in this study. At the societal level,

improving public understanding of HIV transmission and ensuring strict protection of patient confidentiality may reduce social stigma and encourage voluntary disclosure of HIV status. Although disclosure can facilitate therapeutic communication, it should never be regarded as a prerequisite for safe clinical practice.

Ethical Considerations

Recruiting PLHIV for qualitative interviews proved challenging because concerns about stigma, labeling, and social judgment reduced many individuals' willingness to participate. Consequently, participants who agreed to be interviewed may differ systematically from those who declined, particularly regarding their experiences of stigma and coping strategies, which should be considered when interpreting and transferring the findings. Furthermore, limited cooperation from some nongovernmental organizations and support centers restricted access to a broader and more diverse patient population.

Authors' Contributions

Majid Fouladiyan: conceived and designed the study, supervised the research process, developed the methodology, interpreted the findings, and wrote and critically revised the manuscript.

Saeedeh Jafaraghaei: contributed to data collection, conducted interviews, participated in data analysis, and assisted in drafting the manuscript.

Mahdi Faezi: contributed to the literature review, data analysis, interpretation of the findings, and manuscript editing. All authors reviewed and approved the final version of the manuscript.

Conflicts of Interest

The authors declare no conflicts of interest

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- ## References

Anthony, L. E. (2011). *An investigation into employees' perceptions of HIV/AIDS stigma and their attitudes and behaviour towards HIV positive colleagues* (Master's thesis, Stellenbosch University).

Becker, H.S. (1963). *Outsiders: Studies in the sociology of deviance*. New York: Free Press.

Behrovan, H., Noughani, M., & Abachi, A. (2011). Investigating the process of labeling people living with HIV/AIDS and its consequences: A case study. *Iranian Journal of Sociology, 12*(3), 143–166. https://doi.org/10.22034/jss.2022.522796.1493 {In Persian}.

Cheraghi, A., Esmaeili-Nasab, M., & Rasoulzadeh Tabatabaei, S. (2016). Comparison of hostility among women with and without HIV/AIDS. *Quarterly Journal of Psychological Health Research*, *9*(4), 32–45. http://dx.doi.org/10.18869/acadpub.rph.9.4.32 {in Persian}

Childress, S., Shrestha, N., Kreniske, P., Small, E., Gilbert, L., Mukambetov, A., Ssewamala, F., Sensoy Bahar, O., & McKay, M. (2024). Social stigma and vulnerabilities of women living with HIV/AIDS in Kyrgyzstan: Service providers' perspectives. *Families in Society: The Journal of Contemporary Social Services*. https://doi.org/10.1177/10443894241272203

Deng, R., Li, J., Sringernyuang, L., & Zhang, K. (2007). Drug abuse, HIV/AIDS, and stigmatisation in a Dai community in Yunnan, China. *Social Science & Medicine*, *64*(8), 1560–1571. https://doi.org/10.1016/j.socscimed.2006.11.006

Dessie, Z.G., & Zewotir, T. (2024). HIV-related stigma and associated factors: A systematic review and meta-analysis. *Frontiers in Public Health*, *12*, Article 1356430. https://doi.org/10.3389/fpubh.2024.1356430

Earnshaw, V.A., & Chaudoir, S.R. (2009). From conceptualizing to measuring HIV stigma: A review of HIV stigma mechanism measures. *AIDS and Behavior*, *13*(6), 1160–1177. https://doi.org/10.1007/s10461-009-9593-3

Earnshaw, V.A., Smith, L.R., Chaudoir, S.R., Amico, K.R., & Copenhaver, M.M. (2013). HIV stigma mechanisms and well-being among PLWH: A test of the HIV stigma framework. *AIDS and Behavior*, *17*(5), 1785–1795. https://doi.org/10.1007/s10461-013-0437-9

Elmi, Z., Soudagar, S., Hosseinzadeh Taqavai, M., Salahian, A., & Hosseini Shokouh, S.J. (2025). Comparing the effectiveness of schema therapy and compassion-focused therapy on self-criticism and stigma among people living with human immunodeficiency virus. *Medical Journal of Mashhad University of Medical Sciences*, *67*(4), 1075–1088. https://doi.org/10.69107/amh-165358 {in Persian}

Giuliani, M., Patini, R., Lo Muzio, L., Troiano, G., Caponio, V.C.A., Adamo, D., Conti, F., Gallenzi, P., & Lajolo, C. (2023). Attitudes and practices of dentists treating HIV+ patients in the era of new antiretroviral therapy: A 12-year update. *Heliyon*, *9*(8), Article e18751. https://doi.org/10.1016/j.heliyon.2023.e18751

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice-Hall.

Gruszczyńska, E., & Rzeszutek, M. (2023). HIV/AIDS stigma accumulation among people living with HIV: A role of general and relative minority status. *Scientific Reports*, *13*, Article 10709. https://doi.org/10.1038/s41598-023-37948-7

HIV Justice Network. (2024). *2024 in review: Progress amid challenges*. https://www.hivjustice.net/news/2024-in-review-progress-amid-challenges/

Jafari, A., Khami, M. R., Yazdani, R., Mohammadi, M., & Zarei, M. (2012). Effect of an educational course at an Iranian dental school on students' knowledge of and attitudes about HIV/AIDS. *Journal of Dental Education, 76*(6), 792–799. https://doi.org/10.1002/j.0022-0337.2012.76.6.tb05315.x {in Persian}

Jalali, A., Shams, M., Shariatinia, S., Shahrani, A., & Maleki, M. (2024). Improving HIV/AIDS literacy in teachers by easy-to-read materials: A brief report. *Armaghane Danesh, 28*(6), 911–918. https://doi.org/10.61186/armaghanj.28.6 {in Persian}

Jiménez, J., Puig, M., Sala, A.C., Ramos, J.C., Castro, E., Morales, M., & Zorrilla, C. (2011). Felt stigma in injection drug users and sex workers: Focus group research with HIV-risk populations in Puerto Rico. *Qualitative Research in Psychology*, *8*(1), 26–39. https://doi.org/10.1080/14780880903304532

Karram, S., Sanger, C., Convery, C., & Brantley, A. (2024). Social determinants of health among persons living with HIV impact important health outcomes in Michigan. *AIDS and Behavior*, *28*(2), 547–563. https://doi.org/10.1007/s10461-023-04243-5

Link, B.G., & Phelan, J.C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, *27*, 363–385. https://doi.org/10.1146/annurev.soc.27.1.363

McCarthy, G.M., Koval, J.J., & MacDonald, J.K. (1999). Factors associated with refusal to treat HIV-infected patients: The results of a national survey of dentists in Canada. *American Journal of Public Health*, *89*(4), 541–545. https://doi.org/10.2105/AJPH.89.4.541

Momeni-Rad, A., Aliabadi, K., Fardanesh, H., & Mazini, N. (2013). Qualitative content analysis in research methodology: Nature, stages, and trustworthiness of findings. *Quarterly Journal of Educational Measurement*, *4*(14), 187–222. https://jem.atu.ac.ir/article_92.html?lang=en {in Persian}

Operario, D., Sun, S., Bermudez, A.N., Masa, R., Shangani, S., van der Elst, E., & Sanders, E. (2022). Integrating HIV and mental health interventions to address a global syndemic among men who have sex with men. *The Lancet HIV*, *9*(8), e574–e584. https://doi.org/10.1016/S2352-3018(22)00076-5

Rabiee, M., & Kazemnejad Leili, E. (2012). Knowledge and attitude of general dentists regarding HIV and hepatitis infections in Rasht. *Research in Medical Education, 4*(1), 58–67. https://doi.org/10.18869/acadpub.rme.4.1.58

Saeedi, H., Akbari, H., Fuladiyan, M., & Varshoui, F. (2022). Social determinants associated with disease diagnosis in women with breast cancer. *Iranian Journal of Breast Diseases, 15*(3), 45–66. https://doi.org/10.30699/ijbd.15.3.45

Shakouri, A., & Darkesh, M. (2013). An exploratory study of the socioeconomic status of people living with HIV/AIDS in Iran: A case study of patients hospitalized in Imam Khomeini Hospital, Tehran. *Iranian Journal of Social Problems*, *4*(1), 21–43. https://doi.org/10.22059/ijsp.2013.50657 {in Persian}

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Wendt, G.W., Chaves, L.W., & Costa, A.B. (2025). Exploring the influence of age, gender, stigma, and years living with HIV on mental health outcomes. *HIV Medicine*, *26*(11), 1684–1693. https://doi.org/10.1111/hiv.70098

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