

## How to Cite

Agroia, H., & Sen, S. (2023). Manifestation of HIV stigma and stigma-reducing interventions among service providers: A literature review. *International Journal of Social Sciences*, 6(2), 94-117. <https://doi.org/10.21744/ijss.v6n2.2115>

# Manifestation of HIV Stigma and Stigma-Reducing Interventions Among Service Providers: A Literature Review

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**Abstract**---The stigma associated with HIV/AIDS (H/A) and persons living with H/A (PLWHA) continues to pose significant barriers to accessing services and has a deleterious effect on the quality of care. Lack of H/A knowledge and awareness, cultural beliefs, misinformation, and stigma-enhancing policies have been linked with HIV-related stigma at the service provider level; however, research focusing on provider-level stigma and its effects on PLWHA is scarce. This study aims to address this critical gap in research, specifically in understanding how stigma manifests, what kinds of HIV stigma interventions exist, what best-practices are recommended to reduce HIV stigma and what the impact of service provider stigma is on the community. The study aims were investigated through a systematic literature review using the PRISMA protocol. Findings suggest that HIV-related stigma is still common among health care providers and is the product of a synergistic cooccurrence between deeply held personal beliefs and values. Findings also suggest that this stigma is propagated through a lack of training and education on H/A and PLWHA populations, lack of experience, wide-ranging societal stigma, and biased individual views. We recommend an increase in psychosocial training for service providers. Practice interventions at the micro, mezzo, and macro levels are also recommended.

**Keywords**---HIV interventions, HIV services, HIV stigma, implicit bias, societal stigma.

## Introduction

### *Analysis of the Manifestation of HIV Stigma and Targeted Interventions*

Nearly 1.2 million people in the United States (US) are currently living with HIV/AIDS (H/A). Roughly 14 % of this population (148,000) is unaware of their H/A status and requires testing or other support services (Centers for Disease Control and Prevention [CDC], 2020). According to recent CDC statistics, there were approximately 36,400 new HIV infections in the US in 2018. While the rate of increase for new infections has reduced by more than two-thirds since the peak of the 1980s epidemic, social advances and novel interventions have plateaued since 2014. Recent data also indicate that effective HIV prevention and treatment options are insufficiently available to marginalized groups in greater need of services (e.g., transgender persons, persons living with H/A (PLWHA), people of color, and men who have sex with men (MSM)) (Sayles et al., 2007).

H/A affects certain marginalized groups disproportionately, e.g., in 2018, men who identify as bisexual or gay and other men who have sex with men (MSM) constituted nearly 69% of new H/A diagnoses in the US, while 24% of new diagnoses were among those who identify as heterosexual (CDC, 2020). Critical information can also be gleaned from looking at H/A statistics within an array of analytic categories, including race and ethnicity (in 2018, African Americans comprised 42% of all new H/A diagnoses); age (in 2018, the rate of new infections was highest for persons aged 25-34), country/region (South Africa has the highest amount of PLWHA at 7.5 million); culture (cultural beliefs impact H/A perceptions); socioeconomic status (H/A disproportionately affects people of lower

socioeconomic status); and substance use history (of the 38,7391 H/A diagnoses in 2017, 1 in 10 were among people who inject drugs (PWID). Lastly, research indicates that MSM, heterosexuals engaging in high-risk sexual behavior, and PWID are most at risk for acquiring H/A (CDC, 2020).

H/A also continues to be the victim of misinformation and acute stigma. The CDC (2020) showed that some 40% of adults in the US believed HIV could be transmitted by coughing, sneezing, or sharing a glass. In the same study, adults with misinformation regarding transmission were more likely to blame individuals for contracting H/A. A widely accepted definition of HIV-related stigma is "prejudice, discounting, discrediting, and discrimination directed at people perceived to have AIDS or HIV" (Herek, 1999). False information and fear were initial accelerants for widespread stigma towards H/A and PLWHA during the height of the H/A epidemic in the mid-1980s linking H/A with social deviance and aberrant behaviors (Vanable et al., 2006; Goffman, 1963). PLWHA are still commonly associated with already stigmatized and marginalized groups (e.g., MSM and intravenous (IV) drug users, sex workers, and the homeless) (Walcott et al., 2016).

HIV-related stigma acts as a significant barrier to treatment, prevention, and interventions for PLWHA and is linked with lower service utilization and poor physical and mental health outcomes (Burke et al., 2015; Earnshaw & Chaudoir, 2009; Sayles et al., 2007). Additionally, marginalized racial, ethnic, and cultural subgroups are disproportionately represented among PLWHA (e.g., Blacks/African Americans account for 42 % of HIV diagnoses in the US) (HIV.gov, 2020; CDC, 2020). For these PLWHA subgroups, stigma from within their subpopulation and broader social stigma create multiple layers of oppression, leading to an even higher risk for low service utilization (Calabrese et al., 2016). For example, for PLWHA, people who inject drugs (PWID), there is potential for a double-stigma where these two populations intersect, i.e., stigma from the needle-using drug community combined with broader HIV-related social stigma (Burke et al., 2015). Such stigma obstructs PLWHA from getting tested, seeing a primary care doctor to treat their H/A, and accessing a range of other provider-based services (Sen et al., 2020).

Felt stigma—shame and expectation of discrimination that deter people from talking about their experiences and stop them from seeking help—is a significant barrier to services. Nevertheless, PLWHA may also encounter stigma as it manifests among providers themselves (Li et al., 2009). PLWHA depends on healthcare providers for critical, life-sustaining treatment. Considering providers' critical role in the lives of PLWHA, and knowing stigma is a significant barrier to services, a better understanding of HIV stigma among providers needs to be reached (Stein et al., 2008). Types of essential service providers for PLWHA include medical care teams and secondary providers, e.g., registered nurses, doctors, coordinators, and social workers (Sen et al., 2020).

A primary obstacle in assessing the extent and severity of HIV-related stigma at the provider-level is the lack of clarity on conceptualizing stigma (Earnshaw & Chaudoir, 2009). Due to a lack of consensus, it is difficult to approximate the extent of stigma's impact on service utilization, treatment, and prevention efforts. Despite an established correlation between HIV-related stigma and low service provider utilization, few studies have been conducted on HIV-related stigma as it manifests in healthcare settings or among professional service providers (Heijnders & Van Der Meij, 2006; Li et al., 2006). Determining the scope and magnitude of HIV-related stigma at the service-provider-level is critical for various reasons, e.g., better services, improving utilization, and enhancing the provider-patient relationship (Earnshaw & Chaudoir, 2009).

As early as 1991, studies on attitudes toward gay men &/or AIDS patients among clinical psychologists and social workers (N=185), using case vignettes, suggest these professionals are significantly less likely to take on MSM &/or H/A patients as clients and more likely to refer them to other providers (Crawford et al., 1991). Even today, it remains challenging to assess the ongoing validity of such findings or to determine the extent and severity of HIV-related stigma among service providers, owing to the lack of a commonly accepted framework for measuring HIV-related stigma (Sengupta et al., 2011; Earnshaw & Chaudoir, 2009).

This study seeks to understand the manifestation of stigma, what kinds of HIV stigma interventions exist, what best-practices are recommended to reduce HIV stigma and what the impact of service provider stigma is on the community. The poor understanding of the stigma concept and lack of consensus on currently available conceptualizations result in a lack of clarity on stigma's conceptualization to predicate this study. Thus, a clear understanding of the stigma concept as a gestalt, extended to a more specific analysis of H/A-related stigma, is required before an investigation into how stigma manifests at the service-provider-level is conducted. This literature review further discusses the merits of analyzing H/A-related stigma at a provider level within the context of multiple, dynamic levels of environment/influence (Micro, Mezzo, Exo, and Macro). This approach applies the holistic, ecological framework to facilitate integrated analysis of the individual, societal, and structural spheres of influence (Gupta et al., 2008; Alonzo & Reynolds 1995; Mak et al., 2017; Nehru, 2016).

### *Theoretical framework*

Erving Goffman's theoretical work on stigma paved the way for the bulk of subsequent research on H/A-related Stigma (Parker & Aggleton, 2003; Link & Phelan, 2001). Goffman (1963), frames stigma as an "undesirable attribute," which is "incongruous with our stereotype of what a given type of individual should be". Goffman (1963), asserts that this incongruity influences perception. The stigmatized person becomes "of a less desirable kind—in the extreme, a person who is quite thoroughly bad, or dangerous, or weak," who is thus reduced "from a whole and usual person to a tainted, discounted one." (Goffman, 1963). Goffman asserts that society propagates stigma through social norms and rules, which, in effect, impose a "spoiled identity" on the stigmatized person (Goffman, 1963). Goffman offers a foundational understanding of individual-level social stigma, i.e., cognitive perceptions and interpersonal relationships.

Building on Goffman's framework, research carried out by sociologists Link & Phelan (2001); Parker & Aggleton (2003), shed light on stigma at a societal and structural level (Sen et al., 2020). Link & Phelan (2001), note the proliferation of social science research dedicated to stigma, specifically in the realm of social psychology, and argue that the concept of stigma is "too vaguely defined and individually focused." (Link & Phelan, 2001). The authors attempt to address this problem with a more distilled definition of stigma; a dynamic "co-occurrence" of its [stigma] components of "labelling, stereotyping, separation, status loss, and discrimination," which act on, and are acted upon by, the dominant social power structures (p. 363).

Similarly, Parker & Aggleton (2003), hold that much of the available literature places an inordinate emphasis on a micro- or individual-focused analysis of the Stigma concept. An oversaturation of research on H/A-related Stigma associated with individual perceptions (primarily manifested as stereotyping) directs critical focus away from the structural conditions that work to maintain and influence stigma (Parker & Aggleton, 2003). Parker & Aggleton (2003), posit that we can understand stigma in terms of social processes.

Conceptual work on stigma has, in large part, failed to synthesize a definitive understanding of stigma as a concept (Link & Phelan, 2001). Currently, numerous authors apply oblique, working definitions or rely on the dictionary definition of stigma. As a result, most H/A research literature still utilizes similarly vague working definitions of stigma concerning health and social issues (Link & Phelan, 2001). The absence of a mutually held, precise, and readily understandable definition of stigma poses a significant challenge for researchers seeking to compare relevant peer-reviewed information (Earnshaw & Chaudoir, 2009).

In 1979, Urie Bronfenbrenner published a theoretical framework of ecological systems theory to offer an analytical method for achieving a more complete, nuanced understanding of the human social environment (Addison, 1992). Bronfenbrenner theorized that human socialization occurs within the context of multiple layers of the environment (Addison, 1992). Bronfenbrenner identified these layers micro, mezzo, and macro systems. The microsystem contains the individual and the smallest, most immediate level of the environment a person lives in. The mezzo system represents the next level away from the micro system and is composed of organizations and small communities. The macro system is made up of larger spheres of influence (e.g., government policy, political systems, and dominant social structures). We argue that Ecological systems theory is an appropriate framework for this study as it offers a comprehensive framework to understand the multilevel, multidimensional nature of service provider HIV-related stigma (Creese et al., 2002; Merson et al., 2008; Gilliam et al., 2011; Brent, 2016). An ecological framework is therefore utilized to determine how service provider stigma manifests at the individual, organization/clinic, and macro policy and structural levels supports this study's goal: to arrive at a holistic understanding of how HIV-related stigma manifests at the provider level. Examples of stigma at each level of the ecological framework are: 1) micro-level – an expression of predominant societal beliefs in health workers; 2) mezzo-level – systemically racist hiring practices in clinics; and 3) macro-level - fluctuation in government funding policy for responding to H/A.

The foundation for this study is provided by two primary sociological theories - Stigma Theory and Ecological Systems Theory - which enable this literature review to synthesize findings, organize analyses, and inform how results are discussed. Though useful for micro-level, socio-cognitive analysis, Goffman's conceptualization alone is insufficient to analyze stigma at the mezzo, and macro levels. For the mezzo and macro level investigations, Link & Phelan's, and Parker & Aggleton's models are more suitable. Please see Table 1 for a summary of how we conceptualize and measure stigma in this paper.

## Methods

This was a systematic literature review conducted using the PRISMA method (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) of the research protocol that explains the hypothesis, reasoning, and methods for the review process (Moher et al., 2015). A precise, consistent protocol for the literature review process enhances the transparency of the review method. Readers can more easily evaluate the quality of the review and understand how it was carried out. This review draws from searches conducted using SJSU OneSearch, JSTOR, PubMed, Google Scholar, ProQuest, and EBSCO databases. Search terms used incorporated relevant themes on HIV-related stigma, HIV intervention, HIV prevention, HIV stigma-reducing best practices, provider-level stigma, social stigma experiences, stigma, stigma and healthcare systems, and critical demographic information. Sixty-three sources yielded from these searches were selected by excluding sources that did not address stigma, stigma theory, and HIV-related stigma directly.

To maximize relevant sources that address this topic directly, and because it is well documented that stigma manifestation can vary depending on nationality and culture, this review also includes international studies (Mahajan et al., 2008). All sources selected for this review are available in English and published between 1963 and 2020 to include foundational work on stigma theory and provide a comprehensive conceptualization of HIV-related social stigma. Eligibility criteria also included critical information related to theoretical frameworks used for the review and study (stigma theory, ecological systems theory). Data was compiled from peer-reviewed articles with both quantitative, qualitative, and mixed-methods approaches, grey literature including pertinent organizations, as well as other systematic literature reviews. Grey literature was discipline-specific, pertaining to HIV intervention and HIV stigma (Holzemer et al., 2009; Carr & Gramling, 2004; Duffy, 2005; Karjono et al., 2017).

In order to determine which articles to exclude, we scanned the titles and abstracts to see if words such as HIV stigma and HIV stigma intervention were included in the abstract. When reviewing the articles, we kept in mind our research questions targeting HIV stigma and our target population of PLWHA. The articles we selected include national and international research from the following countries: the United States of America, Canada, Thailand, Ghana, Nigeria, Malawi, India, China, South Africa, Uganda, Finland, Estonia, Lithuania, Kenya and Peru, among others. We believe our literature review to be reliable and valid, as we followed specific PRISMA criteria. Qualitative, mixed methods, quantitative studies, and several systematic reviews are included in this review.

## Literature Review

The manifestation of stigma and interventions targeting stigma were the two primary themes that emerged through this research. The primary themes of the manifestation of stigma included *manifestations at multiple levels of the ecological model, including individual/micro, mezzo and macro-levels*. The primary themes of interventions targeting stigma included *interventions targeting HIV knowledge, HIV risk perception, HIV service providers and other interventions identified through the grey literature*. These primary themes are discussed in the following sections.

### *Manifestation of Stigma*

#### *Individual/Micro-Level: Service Provider Stigma*

Due to the dearth of studies carried out within the United States in the last ten years exploring HIV-related stigma among healthcare providers, this review draws heavily from international work (Stringer et al., 2016). Determining the breadth and scale of micro-level stigma among service providers is a crucial factor in understanding the dynamics of a patient-provider relationship and those same providers' health/mental health (Li et al., 2006). Developing an understanding of how HIV-related stigma manifests at an individual provider level is also imperative for creating intervention programs and measuring the outcomes of intervention programs (Van Brakel, 2006). Several critical dimensions to address in understanding how micro-level service provider stigma manifests include broad individual provider attitudes towards PLWHA, feelings about patients' rights, professional attitudes, and how service providers feel about themselves when caring for PLWHA patients (Stein & Li, 2008).

Grounded in Goffman's (1963), earlier work, Herek (1999), defines HIV-related stigma as "prejudice, discounting, discrediting, and discrimination directed at people perceived to have AIDS" (Herek, 1999). Health and human services professionals may hold such stigmatizing beliefs about PLWHA and fear becoming targets of stigma by providing services to PLWHA (Snyder et al., 1999). Using Herek's conceptualization of HIV-related stigma as a working definition, it remains challenging to understand how stigma manifests among providers at an individual

level due to the lack of a reliable, objective measuring tool that is translatable across cultures and borders. A 2003 report reveals that almost no progress had been made in developing a reliable tool for measuring stigma among individual professionals working in care and prevention at that time (USAID, 2003).

In response to the lack of a generalizable stigma scale, [Stein & Li \(2008\)](#), conducted a study for developing and validating a multidimensional, five-factor scale for measuring HIV-related stigma among service providers in China, using exploratory and confirmatory factor analysis. Though research suggests stigma in China is high, results indicate the scale can be used in various international settings ([Stein & Li, 2008](#)). The results of the study (N=1,101) indicated a sublevel association in participants' difficulty in separating their personal beliefs about PLWHA from their professional attitudes. However, when presented with a case vignette set in a medical facility/clinic, results revealed a strong correlation between participants' ability to differentiate between professional obligations and personal beliefs when working with PLWHA.

[Tavakoli et al. \(2020\)](#), conducted a cross-sectional study (N=400) using a validated stigma questionnaire to examine how stigma manifests among healthcare providers in Iran. The mean  $\pm$  standard deviation (SD) of the stigma score was  $25.95 \pm 7.20$  out of 50, with higher scores indicating more stigmatizing beliefs ([Tavakoli et al., 2020](#)). Findings indicate that HIV-related stigma is significant among healthcare providers in Iran and stigmatizing beliefs are primarily motivated by fear of contracting H/A. The groups with the highest levels of stigma were paramedics, nurses, lab workers due to frequent contact with blood and other bodily fluids ([Tavakoli et al., 2020](#)). Due to the religiously conservative culture in Iran, high levels of stigma were associated primarily with sexual behaviors. Overall, fear of contracting H/A, and personal moral and social judgments, were the most common expressions of HIV-related stigma found in this study.

[Vorasane et al. \(2017\)](#), in Lao PDR on service provider-level stigma among doctors and nurses (N=558), employing a 17-item, scaled questionnaire, found that 50 % of participants had high levels of HIV-related stigmatizing attitudes. This study also concluded that lower levels of HIV-knowledge and lower general education levels were associated with higher levels of stigma. Stigmatizing attitudes most prevalent in this study include fear of H/A, discrimination at work, and prejudice.

A range of studies from the patients' perspective suggests that micro-level HIV-related stigma at the service provider level is common and has a significant deleterious effect on patients' overall health outcomes ([Green & Platt, 1997](#)). [Green & Platt \(1997\)](#), analyzed 61 subjective reports on experiences in healthcare settings from PLWHA living in Scotland, concluding that fear of contagion is the primary source of stigma in that region's healthcare settings. [Stringer et al. \(2016\)](#), carried out a study in the southern United States, using a structured questionnaire to interview over 600 healthcare workers serving PLWHA populations and referencing studies conducted in that region on HIV-related stigma from a patient's perspective. The results showed more than 25% of U.S. patients reported experiencing stigma, including patient avoidance, lack of concern for confidentiality, and extreme precautionary methods ([Stringer et al., 2016](#)).

[Nyblade et al. \(2009\)](#), reviewed several international studies to identify common ways HIV-related stigma manifests among workers in healthcare settings. [Nyblade et al. \(2009\)](#), noted gossip, hostile attitudes, denial of care, neglect, and disclosing serostatus without consent as being among the most prevalent discriminatory practices associated with stigma. The authors (2006) also looks at research carried out among general global populations in Nigeria, Tanzania, Ethiopia, and Mexico to identify three leading causes of H/A-related stigma: (1) Poor understanding of stigma and its impact, (2) Fear of contagion, due to lack of knowledge and (3) Value judgments associating PLWHA with sin and dishonor.

The impact of HIV-related stigma on the experiences of PLWHA while engaging with service providers has a high cost. For individuals, research suggests links between perceived stigma and diminished engagement with preventative care services ([Varga et al., 2006](#); [Nguyen et al., 2009](#)). Research suggests links also exist between HIV-related stigma, delaying testing, poor medication compliance, distrust, and fear of a possible confidentiality breach. Previous literature also identifies incompatible religious beliefs, cultural views on deviance, linking H/A to illicit drug use, and other forms of the stigma associated with value judgments as significant stigma sources in healthcare settings ([Surlis & Hyde, 2001](#); [Mahendra et al., 2006](#)).

Finally, the importance of stigma research is highlighted by the fact that much of the literature reviewed also provides a detailed narrative of the real-world impact of HIV-related stigma, e.g., overall poor health outcomes, especially for homeless/unstably housed PLWHA and PLWHA with poor mental health ([Wolitski et al., 2009](#)). In summary, this portion of the review demonstrates a vast body of evidence suggesting individual-level stigma manifests in various ways at the service provider level, is relatively common, poses a significant barrier for accessing services, and is associated with poor health outcomes. Please see Table 2 for a summary of how we have described the manifestation of stigma at the micro-level.

### *Mezzo Level: HIV-Related Stigma*

HIV-related provider-level stigma is also shown to manifest at the clinical level, i.e., clinical characteristics, types of clinics, and clinics' locations (Tavakoli et al., 2020). To begin, Philbin et al. used 58 qualitative interviews to examine "processes, barriers, and facilitators of adult care transition" across the US for adolescents infected with HIV moving to adult care in hospital settings (Philbin et al., 2017). Stigma was reported by participants to be among the primary reasons motivating their reluctance to transition to adult clinics. The authors reported participants feared the transition to adult care would jeopardize their confidentiality as clinics with specialized H/A services incorporate H/A into the name of the clinic. In addition, this study found clinical stigma manifests as a lack of knowledge on the potentially stigmatizing names specific clinics choose, which arguably compromise the degree of anonymity typically afforded what is considered protected health information. Significant barriers for adolescents transitioning to adult care included stigmatizing language used in communication between clinics and varying degrees of stigma in care cultures (Philbin et al., 2017).

PLWHA frequently report experiencing fear related to disclosure of H/A status when in healthcare facilities, which impacts levels of engagement and compliance with antiretroviral treatment (ART) medications (Wringe et al., 2009). The spatial organization of healthcare facilities can inadvertently identify PLWHA to others inside healthcare facilities and increase the potential for felt or enacted stigma (Bond et al., 2019). Health facilities with notable demarcations place PLWHA at risk for unwanted disclosure. Planned spaces can also exemplify how dominant social structures are portrayed in controlling physical movement (Massey & Jess, 1995).

Racial and ethnic disparities in healthcare quality for PLWHA are also vital characteristics varying between clinics and systems of clinics as related to stigma in addition to policy and structure issues. (Institute of Medicine, 2003). To explore the impacts of racial and ethnic disparities, the Institute of Medicine (IOM) formed a committee to evaluate the effects on racial/ethnic disparities in health care. Results from the committee found that racial/ethnic minorities receive lower quality care regardless of insurance status, age, and income. Given that previous literature has identified a relationship between HIV-related stigma and racial discrimination, the ethnic diversity of clinics and healthcare organizations influences the degree of stigma felt by racial/ethnic minorities (Logie et al., 2018., Arnold et al., 2014).

Stigma toward PWID that are also PLWHA is frequently reflected in clinic culture and policies. Health organizations withhold access to ART medications for PWID based on the assumption that PWID are incapable of adhering and complying with ART regimens (Carlberg-Racich, 2016). There is a significant overlap between PLWHA and PWID: Of the 38,739 HIV diagnoses in 2017, 3,641 (1 in 10) were PWID (CDC, 2017). Considering these statistics, the PWID-related stigma that denies PLWHA access to lifesaving ART is an impactful form of HIV-related stigma at the clinical level, particularly in the context of the ongoing American opioid epidemic.

Furthermore, clinic-level stigma also manifests in faith-based healthcare. Faith-based organizations (FBOs) commonly provide healthcare services across the globe. A cross-sectional study evaluating four Eastern Caribbean countries among providers associated with FBOs found that religious doctrine and attitudes grounded in religious beliefs were significant predictors of stigma (Kang Dufour et al., 2013). Provider-level stigma was shown to lead to an inability to provide interventions that effectively respond to H/A (Kang Dufour et al., 2013). Provider-level stigma has been shown to affect H/A communities in different areas of the U.S. In 2016, H/A patients reported that stigmatizing beliefs were being reinforced by health workers in FBOs across the Southern U.S (Stringer et al., 2016). Please see Table 3 for a summary of how we have described the manifestation of stigma at the mezzo-level.

### *Macro Level Factors*

The U.S. increased funding for H/A treatment, prevention, and research between 2000 and 2010 with a marked reduction in stigmatizing policy following the Reagan administration. Funding for H/A work continues to depend heavily on discretionary funding programs and traditional entitlement programs such as Medicaid. H/A service provider advocates' ability to engage political administrations is shown to have significant influence over these types of funding, the development of H/A treatment and prevention policy. Predictably, stigma is reflected in funding levels.

HIV-related stigma also manifests in provider-level policy, often concerning dominant cultural norms where providers are located (Geter et al., 2018). For example, as reflected by the policy, provider-level stigma has been observed for decades in healthcare settings in conservative parts of the U.S. that resist the implementation of sex education as part of the H/A prevention strategy. Provider-level stigma manifests at a policy level in the US based on morality issues more so than in most other western countries.

Debate concerning the adoption of harm-reduction policies is another common way that provider-level stigma manifests at a policy-level (Drucker & Crofts, 2017). For example, provider-level stigma at a policy-level in the southern U.S. can make it challenging to find locations that distribute free contraception and safe needle exchange. Please see Table 4 for a summary of how we have described the manifestation of stigma at the macro-level.

### *Interventions Targeting Stigma*

In the previous section, we discussed various ways in which stigma manifests. In the following section, we examine current interventions targeting HIV stigma. The structure of HIV and HIV-stigma interventions vary depending on a researcher's perspective of the problem. The intervention may also be built around a theoretical framework. In addition, the intervention may be primary; attempting to prevent the spread of HIV, secondary; intervening at the onset of the disease, or tertiary; decreasing the impact of the disease for those currently living with HIV. A tertiary intervention may have a pharmacological solution, and a primary intervention might be expanding public health preventative work. For example, an intervention targeting HIV-positive Haitian Americans individuals, who experience disproportionate rates of HIV, may look different than an intervention targeting a population that is not as impacted by HIV (Santiago et al., 2010). In this study, researchers identified the disproportionate rates of HIV as a public health concern and sought to increase testing among Haitians individuals (Santiago et al., 2010).

It is critical that interventions are targeted to specific populations because different populations are at higher risk of being HIV positive. Hosek et al. (2011), prioritized young African American MSM, who represent the fastest-growing group affected by HIV in the U.S, with cases growing at a rate of 93%. Utilizing the Social Cognitive Theory as a guiding framework and multi-level prevention methods, researchers were able to incorporate culturally centered approaches to group sessions, role play, and skill-building workshops (Hosek et al., 2011). Miles et al. (2003), focused on low-income African American mothers with HIV to assist mothers in managing unique feelings around fear of not being able to care for their children. These studies indicate that interventions must be designed to address the unique circumstances of the participants.

Interventions targeting HIV-related stigma take a variety of approaches depending on the targeted population, including: providing information, promoting skills, testimonials from PLWHA, and support groups (Sengupta et al., 2011). The strategy of exposing community members to PLWHA in order to share their experience and reduce stigma has been used in a variety of countries, including Nigeria, Peru, and South Africa (Fakolade et al., 2010; Young et al., 2011; Pretorius et al., 2016). Previous literature utilized media channels as a tool to educate the public audience on HIV stigma and alleviate social isolation among PLWHA across South Asia (Stangl et al., 2010).

Providing accurate representations of HIV is necessary to give those afflicted more confidence, as well as to quiet the fears often associated with the disease. Although current efforts to develop stigma-reducing HIV interventions are ongoing, HIV stigma continues to be a global issue. As previous studies have identified key factors that contribute to HIV stigma, an assessment on best practices must be conducted to inform potential improvements on current interventions addressing HIV stigma.

The following section will focus on best practices observed in interventions targeting HIV stigma. The academic literature suggests that stigma-reducing interventions target the following areas: HIV knowledge, HIV risk perception, and service provider stigma. An examination of the three categories will be conducted in addition, to a section on grey literature regarding current initiatives on HIV and HIV-related stigma. Please see Table 5 for a summary of our discussion on stigma-related interventions.

### *Interventions Targeting HIV Knowledge*

From previous review of the literature, interventions aimed at increasing HIV knowledge of both the affected and non-affected aid in reducing stigma (Feyissa et al., 2012; Apinundecha et al., 2007). Researchers have incorporated a variety of methods to increase HIV awareness and knowledge. Interventions from previous studies include: providing counseling and testing, using media, and utilizing HIV educational curriculum (Nuwaha et al., 2012; Rivera et al., 2015; Wang et al., 2009). In several studies, counseling and testing were included together to create one comprehensive intervention (Nuwaha et al., 2012; Jürgensen et al., 2013; Mall et al., 2013). For example, a Ugandan study implemented a home-based HIV counseling and testing (HBHCT) program from 2004-2007 (Nuwaha et al., 2012).

In Uganda, researchers explored shift in participant's HIV knowledge on HIV status, risk behavior, and stigma by providing home-based HIV counseling and testing (HBHCT) to high-risk HIV negative adults and children (Nuwaha et al., 2012). The program would allow participants to test at home and access support services if participants tested

positive for HIV (Nuwaha et al., 2012). The study found that HBHCT increased HIV knowledge and decreased HIV stigma. As a result of the study, individuals felt more comfortable sharing their status with a sex partner (41% to 57%), and family members' stigma of sharing their PLWHA loved one's status decreased from 68% to 57%. In addition, with the increase in HIV knowledge, risky sexual behavior decreased. For example, condom use in sex work increased from 39% to 80%. Another study using HBHCT as an intervention in Zambia observed a reduction in stigma over time associated with an increase in HIV testing (Jürgensen et al., 2013). Researchers targeted a rural Zambian community, both those affected and unaffected, to discover whether stigma would decrease over time with an increase in testing. All interested individuals aged 16 and older living in the 18 Zambian villages targeted in the study were invited to participate in home HIV testing and counseling. Particularly, the reduction in self-reported stigma of the participants was significant in the feeling that those with HIV should have equal opportunities in society. A South African study used voluntary counseling and testing (VCT) to address gaps in HIV knowledge contribute to stigma (Mall et al., 2013). Between 2004-2008, knowledge of HIV/AIDS increased and stigmatization of PLWHA decreased among the randomly selected 14-older population in a peri-urban South African community with high HIV prevalence. More specifically, an increase in HIV-related knowledge was found to be significantly associated with a low stigma score. By using counseling and testing as an intervention, this study was able to show how individuals' assumptions about the virus decreased along with associated HIV misinformation.

Similar to providing counseling and testing opportunities, utilizing media to promote HIV knowledge also leads to a decrease in stigma. One study in a New York City neighborhood with the prevalence of drug use utilized media, specifically a video entitled "Health Screenings for Life," to illustrate to its viewers the importance of having health screenings (Rivera et al., 2015). As a result of the intervention, individuals who viewed the video reported less HIV-related blame and shame. In another study using media to increase HIV-related knowledge, African American youth from four mid-sized United States of America cities were shown a video to increase their understanding of HIV (Kerr et al., 2015). By using media to engage young people and by also including HIV risk-reduction information and curriculum, African American youth experienced increases in knowledge and decreases in HIV-related stigma over a significant period of time. Media has been shown to be an effective tool to engage modern audiences, encouraging them to pay attention to the information.

Utilizing an HIV-related curriculum has also been an effective intervention to improve HIV-related knowledge. Derose et al. (2016), used an HIV-related curriculum as a tool to reduce stigma in areas experiencing high HIV occurrence. The curriculum was utilized to decrease stigma in 3 primarily Latino and 2 African American churches. As a result, churches that experienced the intervention were associated with higher rates of HIV testing after the intervention. Using HIV-related curriculum to educate a target population as a means of providing knowledge has been shown to increase rates of HIV testing, resulting in healthier communities. Please see Table 6 for a summary of our discussion on interventions targeting HIV knowledge.

### *Interventions Targeting HIV Risk Perception*

Another important factor contributing to HIV stigma is risk perception of the virus by the affected, unaffected, as well as those who might be exposed to the virus. Many interventions target HIV risk perception as a means of decreasing HIV-related stigma and increasing acceptance of one's risk of contraction. The level of risk community members feel when exposed to an HIV-positive person determines how they will treat PLWHA and as a result, how isolated PLWHA will become. Risk perception impacts stigma because it may perpetuate misinformation about how infectious PLWHA are. A common intervention used to target HIV risk perception is to expose community members to PLWHA. This strategy seeks to challenge and decrease stereotypes associated with HIV. Young et al. (2011), recruited influential community leaders among three urban coastal cities in Peru to dissipate misinformation about HIV among community members. In this way, the study targeted both risk perception of those affected, as well as the perceived stigma of the unaffected. Over the span of 12 and 24-month periods, reported HIV-related stigma and individual fear of transmission had decreased (Young et al., 2011). Similarly, a study in Nigeria utilized PLWHA in the intervention to decrease HIV risk perception among the community (Fakolade et al., 2010). Researchers in Nigeria utilized a mass media campaign to increase the social support of individuals infected with HIV, as well as to provide accurate information about risk perception. Researchers found that those who were exposed to the campaign experienced a significant reduction in stigma against PLWHA. Findings suggest that mass media campaigns featuring PLWHA discussing their reality lead to a reduction in stigma and fears in the community by providing accurate information on risk. Another study in the North West of South Africa brought PLWHA together with their family members to discuss the disease (Pretorius et al., 2016). Family members completed the interview sessions with a better understanding of HIV, HIV risk perception, and how they had stigmatized their family members living



with HIV. As a result, PLWHA felt more supported by their families, and experienced less self-stigma. If PLWHA experience less self-stigma, they may be more willing to accept and acknowledge their own risk of positive status. When community members feel particularly at risk of contracting HIV, they may be less willing to engage with PLWHA, contributing to the positive individual's isolation. Creating interventions that put PLWHA at the forefront so that community members can better understand their experience serve to dispel assumptions of HIV risk perception, and contribute to destigmatizing the disease. In the following section, we examine interventions targeting stigma from a specific population: the service providers tasked with treating PLWHA. Please see Table 7 for a summary of our discussion on interventions targeting HIV risk perception.

### *Interventions Targeting Service Provider Stigma*

A third target of HIV stigma intervention is service provider stigma. Service provider stigma is critical because this stigma may result in inadequate care. In addition, PLWHA may be less willing to utilize care because of service provider stigma, leading to a worsening of their condition. By targeting service providers in intervention, researchers can attempt to build a bridge between PLWHA and the people tasked to treat them. Unfortunately, misinformation exists in the service provider community globally. Researchers utilize knowledge-based interventions to decrease service provider stigma.

The following interventions target service provider stigma and have led to a decrease in stigmatizing attitudes. This section identifies studies which target service providers throughout Asia. A Hong Kong study engaged nursing students with an intervention to improve HIV knowledge as well as exposure to PLWHA (Yiu et al., 2010). After the intervention, nursing students saw a reduction in their level of stigma, an increase in HIV-related knowledge, as well as a decrease in their fear of contracting the virus. Another study focused on physicians in rural China and attempted to dispel misinformation about the virus through counseling (Wang et al., 2009). By learning more about HIV biology, prevention, and treatment, physicians reported an improvement in their HIV-related knowledge and a reduction in HIV stigma. In this study, reduction in stigma manifested through an increase in patients' HIV and STI knowledge and behavior, as well as an increase in patients' communication with physicians at follow-up appointments. As a result of the intervention, the community engaged in increased HIV testing and condom use. Another study targeted primary health care workers in China (Li et al., 2013). In this study, "popular opinion leaders" in the hospital communities were trained to teach stigma reduction. Popular opinion leaders were identified by providers and department heads, who were asked to identify co-workers who were thought well of and considered influential. Chosen popular opinion leaders then consented to be a part of the study. Methods of reducing stigma were taught to leaders over a period of one-month. Leaders were taught methods of complying with universal precaution procedures and ensuring occupational safety, combating stigma, strengthening provider-patient relationships, ensuring patients are taken care of, and bettering the medical environment. Researchers noted major reduction in prejudice, in avoiding PLWHA, and an increase in support provided for PLWHA in hospitals. These findings were sustained after 12 months. Another study targeting Hong Kong health care professionals engaged with interactive experiential games to better understand the experiences of PLWHA (Mak et al., 2015). The program led to improvements in HIV-related knowledge and supportive health care policies protecting PLWHA. In addition, the intervention led to significant improvement in destigmatizing PLWHA.

The following paragraph identifies studies targeting service provider stigma in African countries. A study conducted in Malawi, East Africa targeted urban hospital workers' HIV knowledge, attitudes, and behaviors (Kaponda et al., 2009). The intervention aimed to increase knowledge through information on stigmatization, prevention, sexuality, safer sex practices, testing, and condom use. After the intervention, hospital workers noted an increase in knowledge about HIV and a decrease in stigma towards PLWHA. An Ethiopian study engaged healthcare providers through interviews and focus groups to improve HIV-related knowledge and decrease stigma (Feyissa et al., 2012). It was found that healthcare providers who had HIV knowledge and information about policies against stigma were associated with having lower stigma scores.

A United States of America-based study used fiction writing to dispel stigma among health professional students (Teti et al., 2019). After viewing photo stories of PLWHA, the health professional students created and wrote about characters with HIV. Health professional students were able to humanize PLWHA and empathize with their experience by putting themselves in their shoes through fiction. The above interventions show the importance of educating service providers to increase their HIV-related knowledge. When service providers are more educated on HIV, service provider stigma decreases, making way for better healthcare policy, treatment, and support for PLWHA. Please see Table 8 for a summary of our discussion on interventions targeting service provider stigma.

### *Interventions Identified through Grey Literature*

In addition to the aforementioned academic research directly or indirectly targeting HIV stigma, there are current interventions targeting HIV that fall under grey literature, some of which specifically target HIV-related stigma. Three such interventions are the Global Commission on HIV and the Law, the Let's Stop HIV Together campaign, and Pragati. These three organizations and interventions include a global initiative, a United States of America campaign, and an initiative in India. These grey literature interventions were chosen because they showcase both macro and micro-interventions. In addition, the three chosen grey literature interventions spotlight different perspectives and approaches to HIV, including a global, domestic, and foreign approach.

The Global Commission on HIV and the Law is an organization governed by the United Nations Development Programme (UNDP) working with the Joint United Nations Programme on HIV/AIDS (UNAIDS) (“Commission Overview”, 2017). This program examines how legal systems, human rights, and HIV can help support PLWHA. This commission helps countries develop laws aligned with the recommendations of the Global Commission on HIV and the law. The Global Commission on HIV and the law acknowledge that stigma is a major barrier to proper health care for PLWHA (“Report Implementation”, 2019). Knowing this, the global commission aims to provide recommendations on how countries can use law to elevate the rights of PLWHA. An example of a human rights-focused law may include developing anti-discrimination laws which allow PLWHA to maintain their jobs, and homes, and better take care of their loved ones (“Commission Overview”, 2017). In addition, the global commission has fought to protect property and inheritance rights for women and girls whose family members have been impacted by AIDS. The commission strives to support laws that can increase PLWHA’s confidence in their health system and willingness to seek HIV-related treatment.

Another current intervention is the Let's Stop HIV Together campaign. This campaign compiles resources for affected and unaffected individuals seeking HIV information and knowledge in the United States of America (“Campaigns”, 2019). The campaign provides information on pertinent resources and partner organizations targeting HIV stigma in an effort to encourage testing, prevention, and treatment. This campaign aims to decrease HIV-related stigma among United States of America citizens by empowering communities, organizations, and health care professionals. The campaign specifically provides HIV stigma resources, as well as information on stigma, how to stop stigma, and how to inform others about stigma in the United States of America.

A third intervention called Pragati was formed in an effort to protect female sex workers in Bangalore, Karnataka, India (“Reaching young, new and high volume sex workers: learning from the Pragati project”). Pragati is an initiative of Swathi Mahila Sangha, an organization seeking to empower female sex workers. The initiative targets new sex workers, young sex workers, and sex workers with a high volume of clients, in order to target the most vulnerable to HIV, as well as to other health-related risks. The Pragati team sets up the individual with a peer counselor who they meet with two to four times per month. The intervention also includes HIV testing every 6 months, medical exams monthly, condom distribution, and STI testing. If the individual tests positive for HIV, the initiative also helps the individual register for ART (antiretroviral therapy). The initiative aims to protect the most vulnerable sex workers, and empower them to take control over their health and HIV status.

### **Discussion**

This scoping review study aimed to explore HIV stigma and summarize interventions targeting HIV stigma in order to gain a stronger understanding of this social issue and identify areas of future research. In addition to understanding factors impacting stigma, this research explored the different ways in which stigma manifests. Stigma manifests as service provider stigma, lack of disclosure due to fear of stigma, as well as self-stigma. Service provider stigma is very alarming, as it impacts infected individuals' access to care (Feyissa et al., 2012). Along with impacting one's access to care, service provider stigma also lessens one's willingness to seek help (Mak et al., 2015). Next, many infected individuals do not disclose their HIV+ status in fear of stigma. Self-stigma is another way in which stigma manifests. HIV+ individuals often internalize stigmatizing beliefs (Tshabalala & Visser, 2011). Self-stigma is critical due to the fact that it impacts one's willingness to seek help, perpetuates the epidemic in society, and vastly impacts PLWHA’s mental health and well-being.

Theorists such as Goffman (1963); Parker & Aggleton (2003), as well as Link & Phelan (2001) provide key insights into understanding stigma. Goffman conceptualizes stigma at the micro level. According to Goffman (1963), individuals who adopt a “spoiled identity” often experience felt/self-stigma. Goffman believed stigma is founded on what society assumes is normal. Parker & Aggleton (2003), conceptualize stigma at the macro level. They believe stigma is best understood at the intersection of culture, power, and difference. When viewing stigma in this light,

stigma is perpetuated by societal inequalities. [Link & Phelan \(2001\)](#), describe stigma as both a micro and macro-level issue. Societal and individual issues such as stereotyping generate stigmatizing beliefs. Focus group participants also conceptualized stigma on both the micro and macro level before brainstorming ways to intervene. Participants explored stigma on a micro level through the example of service providers in clinics. Participants noted the importance of service providers exploring their own stigmatizing beliefs about HIV in order to better address their assumptions and provide quality care to their patients. On a macro level, participants conceptualized HIV stigma as stereotypes or labels put upon PLWHA. Further, participants identified that HIV stigma is impacted by both culture and background. Using these key understandings of stigma as a theoretical framework and focus group participants' conceptualization of stigma aids in identifying the best stigma-reducing practices.

It is also crucial to consider the consequences of stigma from the patient's perspective. Experiences with stigma may taint service outcomes from the outset because the patient-provider relationship is not a one-way street, i.e., patient attitudes toward providers can impact provider attitudes toward patients. PLWHA patient attitudes toward providers may be influenced by past experiences with stigma. HIV-related stigma in provider settings manifests at the Micro/individual-level (e.g., beliefs, behavior, and attitudes), Mezzo/clinical-level (e.g., clinical components, types of clinics, and locations), and Macro/structural-level (e.g., support, training, and policy in institutions) ([Tavakoli et al., 2020](#)). The following analysis seeks to elucidate how provider-level HIV-related stigma manifests using Bronfenbrenner's ecological systems to provide a framework for analysis of service provider stigma at the Micro, Mezzo, and Macro levels.

Based on our comprehensive literature review, HIV-related stigma largely impacts HIV intervention and prevention efforts. Specifically, lack of HIV knowledge, HIV risk perception, heterosexism in society, and the perception of sexual promiscuity are four factors heavily impacting stigma. To begin, misinformation about the virus and how it spreads impacts HIV stigma ([Apinundecha et al., 2007](#)). According to the CDC (2019), present day society has a minimal understanding of the disease and stigma has been greatly impacted because of this. In addition, HIV risk perception influences the ways in which people view HIV. Individuals often assume a higher level of perceived risk of contraction due to a lack of familiarity with the disease ([Sobo, 2011](#)). Historical assumptions linking HIV to the LGBTQ+ population profoundly impact stigma. Heterosexism is a value that is upheld in society and although the theory of HIV being the "gay plague" is no longer relevant, this ideology has left its stain on society. Last, the assumed association between HIV and sexual promiscuity largely impacts HIV stigma. There are many social repercussions that arise from this disease and this can be attributed to the belief that HIV is caused by risky behaviors. This research explored various different interventions targeting stigma. A review of the literature found that interventions targeting HIV stigma vary, depending on the ways in which developers define the problem. We have argued that interventions targeting lack of HIV knowledge, interventions targeting HIV risk perception, as well as interventions targeting service provider stigma prove to be helpful in reducing HIV-related stigma.

### *Strengths and Limitations*

#### *Strengths*

A key strength of our research is the utilisation of the PRISMA protocol to conduct this comprehensive literature review. [Mahajan et al. \(2008\)](#), uncovered and catalogued interventions for a broad range of stigma when producing an overview of possible interventions for H/A-related stigma in the available literature. In alignment with the ecological perspective, researchers found it most practical to organize reviewed interventions into discrete levels: intrapersonal, interpersonal, community, institutional, and policy/structural. To better understand H/A-related stigma, researchers must consider the ongoing relevance of the theoretical structures of [Goffman \(1963\)](#); [Link & Phelan \(2001\)](#); [Parker & Aggleton \(2003\)](#).

#### *Limitations*

A limitation to our study is the complex definition and understanding of stigma within the literature. Conceptual work on stigma has, in large part, failed to synthesize a definitive understanding of stigma as a concept ([Link & Phelan, 2001](#)). Currently, numerous authors apply oblique, working definitions or rely on the dictionary definition of stigma. As a result, most H/A research literature still utilizes similarly vague working definitions of stigma concerning health and social issues ([Link & Phelan, 2001](#)). According to [Mahajan et al. \(2008\)](#), few of the programs and interventions that use currently available definitions and concepts in the published literature have been subjected to meaningful scrutiny and analysis because stigma remains a poorly defined concept. The absence of a mutually held, precise, and readily understandable definition of stigma poses a significant challenge for researchers seeking to

compare relevant peer-reviewed information (Earnshaw & Chaudoir, 2009).

*Implications for Policy, Practice and Research*  
*Implications for Social Work and Public Health Policy*

Our literature review has social work and public health policy implications at the clinic and macro levels. One macro-level intervention we suggest includes increasing HIV knowledge through media and education. This includes media and education campaigns addressing the diversity of PLWHA in order to connect people with this population, and to work to address biases associated with PLWHA. In addition, we believe there needs to be an increase in health care facilities and counseling services serving the HIV population, particularly in rural areas, so that the population can experience increased quality care in the areas in which they live. In addition, we stress that anti-discrimination policies need to be established at workplaces serving PLWHA, including in clinics and hospitals. Further, we recommend adding coursework addressing the HIV population, their needs, and the diversity of the population in nursing schools, medical schools, and social work schools, in an attempt to limit further stigmatization of PLWHA. From our review of the literature and the focus group, we have determined that it is crucial to create more policies at the clinic and macro level targeting factors impacting stigma in order to limit service provider stigma in the future.

*Implications to Practice*

At the micro level, we have determined that interventions targeting individuals are crucial. Because of the need to target individuals, we recommend increasing in-person interventions between service providers and PLWHA, because in-person contact with PLWHA can aid in reducing service provider stigma. In addition to service providers' own stigmatizing views of PLWHA, service providers may be influenced by the rest of their ecosystem, including family, friends, and society. From our review of the literature and data, we have determined that family, friends, and society have an impact on service providers, and how they view and ultimately treat PLWHA. In order to reduce HIV stigma, interventions seeking to challenge family and friends' views on heterosexism are recommended. Understanding that service providers are influenced by their larger system underlines the need to create macro policies challenging familial and societal assumptions.

Our data sources point us to recommendations for social work practice at the clinic level as well. At the clinic level, we recommend an increase in training for service providers on topics that include: the psychosocial needs of the population, implicit bias, diversity, leadership training, and modes of HIV transmission in an attempt to separate the infection from homosexuality. We believe service providers working with the HIV population need to be trained through a psychosocial lens, in addition to the medical lens, in order to help service providers further understand the complex needs of this population, including the medical, psychological, and social impacts this infection carries. In addition, we believe that training addressing implicit bias, or unconscious bias, will help service providers become more aware of their own assumptions, and begin to work on their stigmatizing views. Another training topic we believe would be beneficial in effort to decrease HIV stigma includes addressing the diversity of the population. A comprehensive HIV diversity training would provide an in-depth curriculum about this population, and provide case studies illustrating how the population is not homogeneous, but instead includes people of varying sexual orientations, holding many different views on sexuality and sex. We also recommend that leadership is included in training so that clinic leadership can acknowledge their own stigma, work to address their stigma, and be models for their service provider staff.

Finally, we believe training should address the modes of transmission for HIV, in an attempt to separate HIV from the idea of homosexuality, explaining how there are a variety of ways to contract the infection. We believe that robust training addressing service providers' gaps in knowledge needs to be increased in order to target HIV stigma effectively.

*Implications for Social Work and Public Health Research*

The information found in this research is a first step in eradicating HIV stigma. In regards to our literature review methodology, this study was a scoping review of this topic. For this reason, future research should aim to identify specific interventions proven to be effective in reducing HIV stigma. Future research should aim to collect primary qualitative data from a large sample consisting of both individual consumers and service providers. We also believe a large quantitative study with anonymous self-report stigmatizing experiences would provide insight on correlating

factors that we could aim to shift and evaluate through future interventions. Future studies should also aim to gain a broader understanding of this issue by utilizing other types of data and data collection instruments. Furthermore, future work could aim to compare the stigma of HIV to other sexually transmitted infections.

## Conclusion

In summary, the results of this research offer unique contributions to the field of social work practice, policy, and research. Interventions targeting HIV stigma are critical in order to adequately address service provider stigma, societal stigma, as well as self-stigma. The findings from our study illustrate the gap in research in present-day society and emphasize the need to offer more training and education on this topic. The results of this scoping review are promising, as intervention and education can positively influence stigmatizing beliefs. Utilizing the unique contributions this study offers and engaging in the provided recommendations is a strong first step in addressing this social epidemic.

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Table 1  
Conceptualizing and Measuring Stigma

Author & Year	Population	Methodology	Propositions/Findings
Goffman (1963)	People with Mental Health Issues	Theory Building	Society propagates stigma through social norms and rules, which, in effect, impose a "spoiled identity" on the stigmatized person. The author offers a foundational understanding of individual-level social stigma, i.e., cognitive perceptions and interpersonal relationships.
Parker & Aggleton (2003)	General Population	Theory Building	Highlights the manner in which stigma feeds upon, strengthens and reifies existing inequalities of class, race, gender and sexuality. Individualistic modes of stigma are limited. Programmatic approaches in which the resistance of stigmatized individuals and communities is used as a resource for social change.
Link & Phelan (2001)	General Population	Theory Building	The authors define stigma as a dynamic "co-occurrence" of its [stigma] components of "labeling, stereotyping, separation, status loss, and discrimination," which act on, and are acted upon by, the dominant social power structures.
Herek (1999)	People Living with HIV/AIDS	Conceptual	Prejudice, discounting, discrediting, and discrimination directed at people perceived to have AIDS.
Stein & Li (2008)	Service providers in China (N=1,101)	Instrument development	Developed and validated a multidimensional, five-factor scale for measuring HIV-related stigma among service providers in China, using exploratory and confirmatory factor analysis. Results indicate the scale can be used in various international settings. The results demonstrate a sublevel association in participants' difficulty in separating their personal beliefs about PLWHA from their professional attitudes. When presented with a case vignette set in a medical facility/clinic, results revealed a strong correlation between participants' ability to differentiate between professional obligations and personal beliefs when working with PLWHA.

Table 2  
Manifestation of Stigma (Micro-Level)

Author & Year	Population	Methodology	Findings
Green & Platt (1997)	Scotland	Analysis of 61 subjective reports on experiences in healthcare settings from PLWHA	Fear of contagion is identified as the primary source of stigma in the health care setting.
Surlis & Hyde (2001)	Irish	Analysis of 10 HIV patient interviews to explore their experiences of hospitalization and particularly their experiences of nursing care	Incompatible religious beliefs, cultural views on deviance, linking H/A to illicit drug use, and other forms of the stigma associated with value judgments as significant stigma sources in healthcare settings.
Mahendra et al. (2006)	India	Qualitative analysis to develop and test patient responses to hospital-based stigma and discrimination	Recommendations to make improvements among healthcare workers in HIV knowledge, attitudes toward people living with HIV/AIDS, and certain practices with respect to HIV counseling and testing and confidentiality to address stigma and discrimination as a barrier to services.
Nyblade et al. (2009)	Nigeria, Tanzania, Ethiopia, and Mexico	Review of studies	The results indicated three leading causes of H/A-related stigma: Poor understanding of stigma and its impact, Fear of contagion, due to lack of knowledge and Value judgments associating PLWHA with sin and dishonor.
Nyblade et al. (2009)	International	Review of International Studies	Gossip, hostile attitudes, denial of care, neglect, and disclosing serostatus without consent emerged as the most prevalent discriminatory practices associated with stigma.
Stringer et al. (2016)	Southern USA	Interviews with 600 healthcare workers serving PLWHA utilizing structured questionnaire	The results showed more than 25% of U.S. patients reported experiencing stigma, including patient avoidance, lack of concern for confidentiality, and extreme precautionary methods.
Vorasane et al. (2017)	Laos	Survey of doctors and nurses (N=558), employing a 17-item, scaled questionnaire	Results found that 50 % of participants had high levels of HIV-related stigmatizing attitudes. This study also concluded that lower levels of HIV-knowledge and lower general education levels were associated with higher levels of stigma. Stigmatizing attitudes most prevalent in this study include fear of H/A, discrimination at work, and prejudice.

Tavakoli et al. (2020)	Iran	A cross-sectional study (N=400) using a validated stigma questionnaire to examine how stigma manifests among healthcare providers	Findings indicated that HIV-related stigma is significant among healthcare providers in Iran, and stigmatizing beliefs are primarily motivated by fear of contracting H/A. The groups with the highest levels of stigma were paramedics, nurses, lab workers due to frequent contact with blood and other bodily fluids. Due to the religiously conservative culture in Iran, high levels of stigma were associated primarily with sexual behaviors. Overall, fear of contracting H/A, and personal moral and social judgments, were the most common expressions of HIV-related stigma found in this study.
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Table 3  
Manifestation of Stigma (Mezzo-level)

Author & Year	Population	Methodology	Findings
Tavakoli et al. (2020)	Iran	A quantitative cross-sectional study to examine how stigma manifests in healthcare providers	HIV-related stigma manifests at the clinical level and is influenced by clinic characteristics, types of clinics, and clinics' locations.
Philbin et al. (2017)	Adolescents with HIV moving to adult care in hospital settings in USA	Qualitative interviews to examine "processes, barriers, and facilitators of adult care transition"	<ol style="list-style-type: none"> <li>1) Stigma was reported by participants to be among the primary reasons motivating their reluctance to transition to adult clinics.</li> <li>2) Participants feared the transition to adult care would jeopardize their confidentiality as clinics with specialized H/A services incorporate H/A into the name of the clinic.</li> <li>3) Clinic-based stigma manifests as a lack of knowledge on the potentially stigmatizing names specific clinics choose, which arguably compromise the degree of anonymity typically afforded what is considered protected health information.</li> <li>4) Significant barriers for adolescents transitioning to adult care included stigmatizing language used in communication between clinics and varying degrees of stigma in care settings.</li> </ol>
Wringe et al. (2009)	Tanzania	42 in-depth interviews and 4 focus groups conducted among HIV patients	PLWHA frequently report experiencing fear related to disclosure of H/A status when in healthcare facilities, which impacts levels of engagement and compliance with antiretroviral treatment medications.
Bond et al.	Zambia and	Health worker	The spatial organization of healthcare facilities

(2019)	South Africa	reflections on the relationship between health facility spatial organization and HIV stigma in 21 health facilities	can inadvertently identify PLWHA to others inside healthcare facilities and increase the potential for felt or enacted stigma.
Carlberg-Racich (2016)	United States	Qualitative interviews with patients and providers in public clinics	Health organizations withhold access to ART medications for PWID based on the assumption that PWID are incapable of adhering and complying with ART regimens.
Kang Dufour et al. (2013)	Eastern Caribbean	Cross-sectional study among providers in faith-based organizations	Provider-level stigma was shown to lead to an inability to provide interventions that effectively respond to H/A.
Stringer et al. (2016)	Southern USA	Interviews with 600 healthcare workers serving PLWHA utilizing structured questionnaire	H/A patients reported that stigmatizing beliefs were being reinforced by health workers in FBOs across the Southern U.S.

Table 4  
Manifestation of Stigma (Macro-level)

Author & Year	Population	Methodology	Findings
Smith & Smith (2013)	United States	A Primer to Understand Medicaid	Funding for H/A work continues to depend heavily on discretionary funding programs and traditional entitlement programs such as Medicaid. H/A service provider advocates' ability to engage political administrations is shown to have significant influence over these types of funding, development of H/A treatment and prevention policy.
Geter et al. (2018)	United States	Review of Studies	HIV-related stigma also manifests in provider-level policy, often concerning dominant cultural norms where providers are located.
Drucker & Crofts (2017)	United States	Commentary	Debate concerning the adoption of harm-reduction policies is another common way that provider-level stigma manifests at a policy-level.

Table 5  
Stigma Related Interventions

Author & Year	Population	Methodology	Findings
<a href="#">Santiago et al. (2010)</a>	Haitian	Key informant interviews with representatives of organizations providing HIV/AIDS services	An intervention targeting HIV positive Haitian Americans individuals, who experience disproportionate rates of HIV, may look different than an intervention targeting a population that is not as impacted by HIV.
<a href="#">Hosek et al. (2011)</a>	African American	Quantitative analysis among 40 HIV patients participating in a behavioral intervention	Researchers were able to incorporate culturally centered approaches to group sessions, role play, and skill building workshops as it is critical that interventions are targeted to specific populations.
<a href="#">Miles et al. (2003)</a>	African American	Pre and post-test analysis among randomly assigned women caregivers of young children	Focused on low-income African American mothers with HIV to assist mothers in managing unique feelings around fear of not being able to care for their children. Interventions must be designed to address the unique circumstances of the participants.
<a href="#">Sengupta et al. (2011)</a>	United States	Review of Studies	Interventions targeting HIV-related stigma take a variety of approaches depending on the targeted population, including: providing information, promoting skills, testimonials from PLWHA, and support groups.
<a href="#">Fakolade et al. (2010); Young et al. (2011); Pretorius et al. (2016)</a>	Nigeria, Peru and South Africa	Review of Studies	The strategy of exposing community members to PLWHA in order to share their experience and reduce stigma has been used in a variety of countries.
<a href="#">Stangl et al. (2010)</a>	South Asia	Review of Studies	Previous literature utilized media channels as a tool to educate the public audience on HIV stigma and alleviate social isolation among PLWHA across South Asia.

Table 6  
Interventions Targeting HIV Knowledge

Author & Year	Population	Methodology	Findings
<a href="#">Feyissa et al. (2012); Apinundecha et al. (2007)</a>	Ethiopia; Thailand	Cross-sectional mixed-methods study among health care providers; action research to understand intervention	Interventions aimed at increasing HIV knowledge of both the affected and non-affected aid in reducing stigma.

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		effectiveness via pre and post-test	
<a href="#">Nuwaha et al. (2012); Rivera et al. (2015); Wang et al. (2009)</a>	Uganda; New York City; China	Cross-sectional surveys among participants were carried out before and after the interventions	Interventions from previous studies include: providing counseling and testing, using media, and utilizing HIV educational curriculum.
<a href="#">Nuwaha et al. (2012); Jurgensen et al. (2013); Mall et al. (2013)</a>	Uganda; Zambia; South Africa	Cross-sectional surveys among participants were carried out before and after the interventions	Counseling and testing were included together to create one comprehensive intervention.
<a href="#">Nuwaha et al. (2012)</a>	Uganda	Researchers explored shift in participant's HIV knowledge on HIV status, risk behavior, and stigma by providing home-based HIV counseling and testing (HBHCT) to high-risk HIV negative adults and children	HBHCT increased HIV knowledge and decreased HIV stigma. individuals felt more comfortable sharing their status with a sex partner (41% to 57%), and family members' stigma of sharing their PLWHA loved one's status decreased from 68% to 57%. In addition, with the increase in HIV knowledge, risky sexual behavior decreased.
<a href="#">Jürgensen et al. (2013)</a>	Zambia	Data from a baseline survey (n = 1500) and a follow-up survey (n = 1107) were used to evaluate changes in stigma	Using HBHCT as an intervention, study found a reduction in stigma over time associated with an increase in HIV testing.
<a href="#">Mall et al. (2013)</a>	South Africa	Two cross-sectional community surveys assessing HIV knowledge, attitudes and uptake of VCT services were conducted	Knowledge of HIV/AIDS increased and stigmatization of PLWHA decreased. An increase in HIV-related knowledge was found to be significantly associated with a low stigma score. By using counseling and testing as an intervention, this study was able to show how individual's assumptions about the virus decreased along with associated HIV misinformation.
<a href="#">Rivera et al. (2015)</a>	United States	As part of a larger intervention to increase HIV testing, participants in two of three study arms viewed the "Health Screenings for Life" video and were administered pre/post-video surveys capturing HIV stigma	Individuals who viewed the video reported less HIV-related blame and shame.
<a href="#">Kerr et al. (2015)</a>	African American	1613 African American adolescents from four mid-sized cities	African American youth experienced increases in knowledge and decreases in HIV-related stigma over a significant period of time. Media

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		participated in a randomized control trial. Participants completed baseline, 3-, 6-, and 12-month surveys to measure HIV-related stigma and knowledge	has shown to be an effective tool to engage modern audiences, encouraging them to pay attention to the information.
<a href="#">Derose et al. (2016)</a>	Latino and African American	Implemented and evaluated, using a baseline and follow-up survey, a pilot intervention with 3 Latino and 2 African American churches in high HIV prevalence areas.	churches that experienced the intervention were associated with higher rates of HIV testing after the intervention. Using an HIV-related curriculum to educate a target population as a means of providing knowledge has shown to increase rates of HIV testing, resulting in healthier communities.

Table 7  
Interventions Targeting HIV Risk Perception

Author & Year	Population	Methodology	Findings
<a href="#">Young et al. (2011)</a>	Peru	Mixed effects modeling was used to analyze data on 3,049 participants from the Peru site of the NIHM collaborative trial	Reported HIV-related stigma and individual fear of transmission decreased.
<a href="#">Fakolade et al. (2010)</a>	Nigeria	Utilized a mass media campaign to increase the social support of individuals infected with HIV, as well as to provide accurate information about risk perception	Researchers found that those who were exposed to the campaign experienced significant reduction in stigma against PLWHA. Findings suggest that mass media campaigns featuring PLWHA discussing their reality lead to a reduction in stigma and fears in the community by providing accurate information on risk.
<a href="#">Pretorius et al. (2016)</a>	South Africa	Qualitative interviews with family members of PLWHA	PLWHA felt more supported by their families, and experienced less self-stigma.

Table 8  
Interventions Targeting Service Provider Stigma

Author & Year	Population	Methodology	Findings
<a href="#">Yiu et al. (2010)</a>	Hong Kong	Review of Studies	After the intervention, nursing students saw a reduction in their level of stigma, an increase in HIV-related knowledge, as well as a decrease in their fear of contracting the virus.
<a href="#">Wang et al.</a>	China	Using a pre-post design, 69	By learning more about HIV biology,

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(2009)		physicians were recruited from rural county hospitals and participated in a training intervention. Physicians completed baseline and six-month assessments	prevention, and treatment, physicians reported an improvement in their HIV-related knowledge and a reduction in HIV stigma.
Li et al. (2013)	China	A randomized controlled trial conducted in 40 county-level hospitals in 2 provinces of China	Researchers noted major reduction in prejudice, in avoiding PLWHA, and an increase in support provided for PLWHA in hospitals. These findings were sustained after 12 months.
Mak et al. (2015)	Hong Kong	Eighty-eight students of health-related programs were randomly assigned to a study group; They completed measures of stigmatizing attitudes and HIV/AIDS-related knowledge at pre-program, post-program, and one-month follow-up	The program led to improvements in HIV-related knowledge and supportive health care policies protecting PLWHA.
Kaponda et al. (2009)	East Africa	850 hospital workers completed surveys at baseline (N = 366) and post intervention (N = 561)	After the intervention, hospital workers noted an increase in knowledge about HIV and a decrease in stigma towards PLWHA.
Feyissa et al. (2012)	Ethiopia	A cross-sectional study, employing quantitative and qualitative methods, was conducted in 18 healthcare institutions	It was found that healthcare providers who had HIV knowledge and information about policies against stigma were associated with having lower stigma scores.
Teti et al. (2019)	United States	Qualitative analysis of post-intervention interviews, to elaborate on what and how students learned from two anti-stigma interventions.	Health professional students were able to humanize PLWHA and empathize with their experience by putting themselves in their shoes through fiction.

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