Defining Quality of HIV Services for MSM and Transgender Women

Results of a Systematic Review

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ABBREVIATIONS

ART	antiretroviral therapy
CBO	community-based organization
HCT	HIV counseling and testing
LGBT	lesbian, gay, bisexual, and transgender
LMIC	low- and middle-income country
MSM	men who have sex with men
PrEP	pre-exposure prophylaxis
PEP	post-exposure prophylaxis
STI	sexually transmitted infection
TASP	treatment as prevention
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

Achieving quality in the design and delivery of health services is necessary to reach the intended benefits of service delivery programs. The term "quality" is broadly applied to describe the type and manner by which services are delivered. Some elements of quality are universal, while others are specific to the particular health problem. In the field of HIV, recent advances in biomedical approaches to prevention and treatment have led to an increased focus on quality in HIV service provision. This is especially important for men who have sex with men (MSM) and transgender women— key populations who are at greater risk of acquiring HIV, and whose social marginalization may influence the kind of healthcare they receive.

Consistency in the conceptualization and measurement of quality for HIV services provided to MSM and transgender women is critical. The term "quality" is ubiquitously used as a benchmark for HIV programs, in HIV-related guidance documents, and across research studies. However, there is great variety in how the term is defined and operationalized by policymakers, program implementers, and researchers. This makes it difficult to develop common measures and establish an evidence base for quality as a contributing factor to HIV service use uptake and adherence across contexts and studies. It also limits the degree to which a common approach to reaching quality can be replicated in the design and implementation of HIV service delivery programs.

In this document, we build on the literature related to quality and HIV services for MSM and transgender women, to arrive at a common definition and analytical framework that can be applied across programs and research projects. The first step in this process was a systematic literature review. In March and April 2015, we searched the PubMed database and websites related to the health of MSM and transgender populations. We identified 137 policy documents, guidance manuals, tools, reports, and scientific studies from around the world as relevant to the review. Our next step was to analyze each document using a coding scheme developed from HIV-related frameworks and seminal quality frameworks from adjacent health fields that have a health systems perspective. Our final step was to share our findings with expert reviewers through two interactive webinars, and then to revise the definition of quality and the analytical framework we had proposed, using the reviewers' practice-based experience as a complement to the literature.

The results of the review indicate a need for two major shifts in the way quality HIV services are currently conceptualized for MSM and transgender women:

1. Responsibility for providing quality HIV services to MSM and transgender women is disproportionately centered on individual providers. Indeed, as the direct point of contact, providers and other staff may have the most influence on clients' experience of quality HIV services. However, provider performance should be considered within the context of the health system and organization that shapes their work. Therefore, this document outlines important aspects of quality to be considered at multiple levels of the broader health system and healthcare organizations, in addition to providers.
2. Current conceptualizations and uses of the term "quality" focus primarily on minimizing stigma and discrimination, but should also emphasize technical and cultural competency as equally important to quality service provision. Lack of stigma and discrimination alone is an insufficient benchmark of quality HIV services. Rather, services must be delivered so that they meet national and global standards for the minimum package of services and in accordance with recognized guidelines and protocols for HIV services and referrals to ancillary services. Client-provider interactions and the design of HIV delivery systems should take into account shared cultural norms of local MSM and transgender populations, and also recognize the diversity within each group. The definition of quality

proposed in this document gives equal weight to these additional aspects of quality and the framework for quality proposed here outlines how to operationalize each.

Based on the literature reviewed, we proposed the following definition of quality:

> *Quality HIV services for MSM and transgender women are those that are based on scientific evidence of the appropriate package of services. They are delivered in a culturally and technically competent manner through efficient and effective linkages across a variety of service delivery models that ensure continuity of care (that is, facility-based, community-based, public, and private settings) and HIV service types (diagnosis, treatment, retention, and ancillary services supporting these). Quality services are voluntary, confidential, and timely. They are delivered in a stigma-free environment, by providers who are equipped to address HIV and other overlapping health problems and concerns of MSM and transgender women, and who understand the culture, values, and social challenges faced by these populations.*

To support this definition, we also proposed three essential domains of quality: technical competency, cultural competency, and services that are stigma-free. Within each domain, we list criteria derived from our literature review that should be considered.

Domain 1: Technically competent

- At a minimum, providers should possess the knowledge and skills to implement globally and nationally recognized guidelines and protocols for HIV service provision. This should include appropriate sexual and health history taking that elicits information necessary for clinical service recommendations, but does not force a client into disclosure nor is influenced by provider curiosity.
- Providers must give clients correct information in a way that clients can understand. This information should not be limited to HIV prevention through condom and lubricant use. It should also cover the natural progression of HIV, antiretroviral therapy (ART), ART-based prevention strategies including pre-exposure prophylaxis (PrEP) and treatment as prevention (TASP), hormone therapy for body modifications, and how to navigate the health system overall.
- Providers should be equipped to diagnose and treat health conditions that disproportionately affect MSM and transgender women, and that intersect with HIV vulnerability (for example, mental health and substance use problems). Organizations and providers who are unable to provide services directly should know what services are available and how to make and track appropriate referrals.

Domain 2: Culturally competent

- At a basic level, cultural competency means that providers understand the difference between sexual orientation and gender identity; that appropriate terminology and pronouns are used; and that appropriate interpersonal communication skills are employed to build trust and rapport with clients.
- Consideration should be given to the diversity within MSM and transgender populations in the design and delivery of programs (for example, differences in socioeconomic status, religion, politics, and geography). It is especially important to address the different needs of younger and older MSM and transgender women.
- The culture of local MSM and transgender populations should be studied and considered in the design and delivery of services. Culture applies to commonly shared beliefs, values, and customs, and should extend beyond a singular focus on sexual behavior or the shared experience of stigma and discrimination.

- Intersecting vulnerabilities with HIV should be acknowledged and addressed through counseling and service provision, and effective linkage to ancillary services through documented referrals. This is particularly important for transgender clients who may have housing, employment, and other needs as a result of stigma and social isolation.
- MSM and transgender community-based organizations (CBOs) should be engaged in the design and delivery of HIV services. This will support responsiveness to shared values and norms within MSM and transgender communities.

Domain 3: Stigma-free

- HIV service provision environments should be welcoming and nonjudgmental. Sexual orientation and gender identity should be included in nondiscrimination policies within organizations and at the national health system level, with appropriate sanctions enforced.
- Physical environments should be designed as inclusive of key population groups: for example, through access to gender-neutral restrooms and monitoring of waiting rooms to mitigate acts of discrimination by other clients.
- The personal values of providers should be explored to mitigate overt cases of stigmatizing attitudes, as well as unconscious stereotypes that may inadvertently influence service provision.
- MSM and transgender women should be trained and engaged in direct service provision. Extra efforts to maintain confidentiality should be enforced when providers are from the same social circles as clients.
- "Courtesy stigma" experienced by providers serving MSM and transgender populations (explained later in this report) should by monitored and action taken to mitigate stigmatizing events.

These three dimensions of quality should be applied at the provider, organization, and health system levels.

Provider

Providers should be able to provide stigma-free and nonjudgmental services, in a way that builds rapport and trust with clients. This requires interpersonal communication skills. When appropriate, providers should possess the skills to be able to include same-sex spouses in information-sharing and service provision. Providers should give clients correct information about HIV prevention, disease course, treatment, and new technologies (for example, PrEP and TASP) in a way that the client population can understand. Providers are also ultimately responsible for clients' provision of consent for services, and for maintaining the confidentiality of client information.

Organization

To achieve technical competency, organizations should have appropriate protocols in keeping with national and global standards, including the necessary commodities and equipment to provide care. Supportive supervision should be available to providers. Organizations should be networked so that they can make referrals for services beyond their capacity. To achieve cultural competency, organizations should adopt, post, and enforce nondiscrimination policies that are MSM- and transgender-friendly, monitor waiting rooms, have gender-neutral bathroom facilities, and be responsive to preferred times and places for service delivery. Organizational policies should ensure the confidentiality of health information and accommodate the same-sex partners of clients. Intake forms should include options for nonconforming gender identities and preferred names. Registration and security personnel should be properly sensitized and monitored.

Health System

To achieve technical competency at the health system level, national guidelines should be established that cover taking sexual and health histories appropriately. The inclusion of skills in providing the recommended package of HIV and ancillary services for MSM and transgender women should be promoted as a necessary part of training in medical curricula. Special credentialing for providers with appropriate skills to provide HIV-related and other health services for MSM and transgender women should be considered. Recruitment and training of MSM and transgender women as HIV service providers should be promoted, through professional organizations and other resources.

A system to support and track referrals should be established to ensure that clients have access to the appropriate HIV-related and ancillary services. Similarly, to achieve quality standards, health information systems should be developed and supported that accurately capture patient information, and that facilitate the availability of patient information over time and across providers. Quality measures should also be promoted as part of the data captured in tracking of HIV services delivered to MSM and transgender populations.

Cultural competency at the health system level requires designing health service delivery to be responsive to patterns of health-seeking behavior within each group. This will likely require variety in the way HIV services are delivered. Some clients may prefer "one-stop shopping," while others may prefer HIV services that are nested within primary healthcare. Interaction with clients through technology may also be appropriate. The degree of variety needed to achieve quality HIV services will depend on the context, including the level of stigma and discrimination toward sexual minorities and local preferences. Nondiscrimination policies should also be adopted at the national level to promote service delivery in a stigma-free environment. MSM and transgender advocacy groups should be part of HIV governing bodies (for example, National AIDS Control Program, and country coordinating mechanisms) and consulted in the design of HIV services, in order to increase understanding of MSM and transgender cultures, values, and health needs in these arenas.

A strength of this review is the comprehensive analysis of the vast literature on this topic. However, we note several deficits in available literature that research should address:

- Few documents were available that focused principally on community-based or outreach services (9%), and only one focused on home-based care. As mechanisms for delivery of HIV services move beyond static facilities, so should the conceptualization and application of quality standards.
- Only 15 percent of available documents focused solely on transgender populations. Transgender populations face unique circumstances in seeking HIV care, because they are more easily identified and hence more vulnerable to stigma than other key populations are and because of health concerns related to hormone use and other forms of transitioning.
- Most documents or studies were from North America, Europe, or Australia (66%). Caution should be taken to avoid the imposition of Western perspectives on the experience of sexual and gender minorities in other contexts.

In this document, we have synthesized the current literature related to quality of HIV services for MSM and transgender women, and proposed a simple, easy-to-use definition of and framework for quality. This is a step toward a better understanding, operationalization, and assessment of the quality of HIV services for MSM and transgender women. It incorporates three dimensions of quality that can be operationalized at three different levels: provider, organization, and health system. It also takes into consideration the perspectives both of HIV providers and clients. The next step to move the findings of this review into action is to develop measures that relate to each domain of quality and at each level.

INTRODUCTION

The HIV epidemic persists as one of the most important global health problems of our time (AIDS, 2014; Murray, et al., 2014). HIV/AIDS is the fifth leading cause of disability adjusted life years (Murray, et al., 2012), and the sixth leading cause of death globally (Organization, 2014). Sexual minorities, including MSM (Beyrer, Baral, et al., 2012) and transgender women (S. D. Baral, et al., 2013) suffer a substantially higher burden of HIV relative to the general population (AIDS, 2014). In low- and middle-income countries (LMICs), the odds of acquiring HIV are 19.3 times greater for MSM than for the general population (Beyrer, Baral, et al., 2012). The global prevalence of HIV among transgender women is estimated at 19.1%, based on data pooled across regions from 2000 to 2011 (S. D. Baral, et al., 2013). The increased HIV burden for these populations is most clearly evident in concentrated epidemic settings, although it is also important in generalized epidemic contexts (Beyrer, Sullivan, et al., 2012). For this reason, MSM and transgender women are recognized as key populations who should receive increased efforts to combat and mitigate the HIV epidemic (AIDS, 2014; Coordinator, 2012; Sidibe, Dybul, & Birx, 2014).

Great strides have been made toward ending the HIV epidemic. Globally, HIV incidence peaked in 1997, and mortality peaked in 2005 (Murray, et al., 2014), largely as a result of the introduction of ART, including its use in prevention of mother-to-child transmission (Murray, et al., 2014). With these interventions, it is estimated that 19.1 million years of life have been saved since 1996, mostly in developing countries (Murray, et al., 2014). At odds with this exceptional level of success is the fact that those populations most at risk for HIV—including MSM and transgender women—have benefited the least from intervention efforts. For example, in an analysis of HIV spending in 50 LMICs conducted in 2009, HIV expenditures for key populations as a percentage of total HIV spending were only 1 percent in generalized epidemic contexts, and only 7 percent in concentrated epidemic settings (Izazola-Licea, et al., 2009). The mismatch in allocation of resources and burden of disease has not changed significantly over time, with only 7 percent of HIV spending going to key populations in LMICs across epidemic type as recently as 2011 (Amico, Gobet, Avila-Figueroa, Aran, & De Lay, 2012). As a result, it is estimated that only 10 percent of MSM globally have been reached with HIV prevention services (amFAR, 2008; Beyrer, 2010). The need to effectively provide MSM and transgender women with quality HIV services is even more pressing today, given recent advancements in biomedical prevention technologies, including the ART-based strategies of PrEP (Grant, et al., 2010) and TASP (AIDS, 2014; Beyrer, Sullivan, et al., 2012; Cohen, et al., 2011; Sidibe, et al., 2014).

In 2014, the Joint United Nations Programme on HIV/AIDS (UNAIDS) set new targets to achieve the end of the AIDS epidemic by 2030 (HIV/AIDS, 2014). These targets were motivated by new biomedical technologies to prevent HIV, as well as success made toward the 2015 Millennium Development Goal 6: to halt and reverse the spread of HIV and achieve universal access to treatment for those who need it (Sidibe, et al., 2014). The new "90-90-90" targets ambitiously aim that by 2020, 90 percent of all people living with HIV will know their HIV status, 90 percent of all those diagnosed will be on ART, and 90 percent of those on ART will have viral suppression (HIV/AIDS, 2014). Achieving these targets will slow the epidemic to a level that would facilitate the epidemic's control. If these targets are missed, and the epidemic persists at the current rate, the funding available for HIV services will not be able to support everyone needing treatment.

Realization of the 90-90-90 targets will depend on the scale-up of quality HIV testing, treatment, and retention services at an unprecedented rate (Hill & Pozniak, 2015). According to UNAIDS, this "…will require application of best practices and lessons learnt from high-achieving settings as well as tailored approaches to address the unique challenges in diverse settings" (HIV/AIDS, 2014). Nowhere is this more true than with key populations, including MSM and transgender women, who face significant challenges to obtaining quality HIV service provision as a result of the stigma attached to their nonheterosexual orientations and nonconforming gender identities (S. Arreola, et al., 2015; G. M. Ayala, K. Santos, G. Arreola,

S. Hebert, P. Thomann, M. Wilson, P. Beck, J. Do, T., 2014; HIV/AIDS, 2014; United Nations Population Fund, 2015). Indeed, results from the 2012 Global Men's Health and Right's Survey show significant drop-offs in the HIV treatment cascade for MSM (G. M. Ayala, K. Santos, G. Arreola, S. Hebert, P. Thomann, M. Wilson, P. Beck, J. Do, T., 2014), with particular gaps noted in testing (only 57% of participants had ever tested for HIV), and ART treatment retention once initiated (G. M. Ayala, K. Santos, G. Arreola, S. Hebert, P. Thomann, M. Wilson, P. Beck, J. Do, T., 2014). In this study, drop-offs along the HIV care continuum were correlated with aspects of service provision quality, including MSM's lower level of comfort with their healthcare providers (G. M. Ayala, K. Santos, G. Arreola, S. Hebert, P. Thomann, M. Wilson, P. Beck, J. Do, T., 2014), experiences of homophobia and stigmatizing attitudes of healthcare providers (S. Arreola, Hebert, P., Makofane, K., Beck, J., Ayala, G., 2012), and experiences of sexual stigma (S. Arreola, et al., 2015).

The Reason for This Study

Provision of quality HIV services is ubiquitously set as a benchmark for HIV programs (Coordinator, 2012), in HIV-related guidance documents ("Policy Brief: Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations," 2014) ("Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men Who Have Sex with Men, and Transgender People," 2013), and across research studies. However, there is great variety in how the term is defined and operationalized by policymakers, program implementers, and researchers. This makes it difficult to develop common measures and establish an evidence base for quality as a contributing factor to HIV service use uptake and adherence across contexts and studies. It also limits the degree to which a common approach to reaching quality can be replicated in the design and implementation of HIV service delivery programs. This is in contrast to a relatively well-established literature on healthcare quality in general (Bruce, 1990; Donabedian, 1988; Organization, 2006). **A consistent definition serves as an important precursor to setting quality goals, assessing quality, and improving quality through learning cycles within as well as across projects.** The objective of this study is to address this gap, through a focus on quality of HIV services for MSM and transgender women.

How to Use This Study with Other Tools

At the time of this review, two guidance documents were under development that relate to the objective of this study. These documents—now published—serve as supporting tools for the WHO consolidated guidelines for HIV services for key populations, by making recommendations on strategies for implementation of HIV services. The first tool focuses on MSM and is titled *Implementing Comprehensive HIV and STI Programmes with Men Who Have Sex with Men*—referred to as the "MSMIT" (UNFPA, et al., 2015). The second tool focuses on transgender people and is titled *Implementing Comprehensive HIV and STI Programmes with Transgender People*—referred to as the "TRANSIT" (UNDP, 2016). Quality is an inherent component of the recommendations in these tools. However, it is not explicitly delineated as a measurable construct with specific parameters. Through our review, we arrive at similar conclusions in terms of essential aspects of quality as those promoted in these tools, and define these using specific domains. We also provide a wider lens on concepts to be included in a quality definition based on our use of established frameworks for quality from adjacent health fields and a health systems perspective. Similar to these tools, our recommendations are directed to public health officials and managers of HIV programs, nongovernmental and civil society organizations, health workers, health policymakers, advocates, and international funding agencies. These groups should use the findings of our study along with these other tools, to be sure that the programs they plan include the essential elements of quality. The clear focus on quality and delineation of important dimensions of quality outlined here make a unique contribution to the measurement of quality for internal monitoring and evaluation of programs, offering consistency in the analysis of trends in quality across projects.

Quality as a Construct

Throughout this document we will refer to quality as a construct comprising multiple domains. A construct is a multidimensional concept derived from shared ideas, knowledge, and experience. A domain refers to categories, components, or elements of the broader concept of a construct. This approach to characterizing quality as a tangible aspect of HIV-related services is consistent with how quality is addressed in healthcare and health systems in general (Donabedian, 1988; Organization, 2006) and in other sexual and reproductive health services (Bertrand, 1995; Bruce, 1990). Approaching quality as a construct implies that there are fluid parameters establishing the boundaries of how it is defined. It allows flexibility in our understanding of quality over time, and room for adaptation as consensus and conventional wisdom about components of quality, as well as aspects of the HIV epidemic and HIV-related services also change. At the same time, it recognizes that there is value in establishing a structured definition of quality based on consensus to date.

Quality and Access

An important distinction to consider is the difference between the concepts of quality and access to health services. Quality and access are discrete aspects of health services that merit separate attention when assessing the HIV service environment (Bertrand, 1995; Donabedian, 1988; Organization, 2006). In broad terms, access focuses on factors related to engaging clients with the health system, while quality focuses on the experience of clients once "in the door" of the health system (Bertrand, 1995). Generally, access issues have focused on geographic and physical proximity, as well as economic barriers. Cognitive access (knowledge about services) and psychosocial access (attitudinal and social factors such as stigma) are additional elements of access that have been explored with particular interest in the field of family planning (Bertrand, 1995) and are especially relevant for HIV services and sexual minority populations.

In contrast to access, quality begins once a client recognizes a need for and desires a health service. Quality then encompasses the experience of the client as they seek and receive health services. The "in the door" analogy does not limit engagement with the health system to facility-based care. Particularly with HIV services, the health system is broader, and care may be delivered in diverse settings (outreach, community-based, and home-based) and by a variety of providers (government health agencies, civil society organizations, and faith-based groups, among others).

We recognized overlapping areas related both to access and quality in our analysis of how to define quality of HIV services. For example, a potential tension exists between delivery of high-quality services that require extensive resource and time investments, and increased access to services for a larger segment of the population. It is difficult to achieve both an intensive and comprehensive level of service provision while also rapidly expanding the reach of services to clients. At the same time, quality drives initiation and retention in HIV services both for the clients who have sought services and peers with whom clients have shared their positive or negative experiences. Of particular importance for HIV-related services for marginalized populations such as MSM and transgender women is the social stigma that undermines both access to and the quality of services. To this end, "social enablers" such as stigma have been noted as important determinants of HIV service uptake and continuation ("Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men Who Have Sex with Men, and Transgender People," 2013). In this analysis, we give attention to how broader social norms influence service provision, rather than how services might direct change in wider social norms.

Seminal Frameworks for Quality of Healthcare

There exists a strong foundation of theoretical and empirical literature in public health to guide the conceptualization of quality health services. Although not specific to HIV services for MSM and transgender

women, these documents serve as a useful starting point for framing an analysis of quality. In this section, we provide a short summary of the seminal frameworks and models related to quality that guided our literature review.

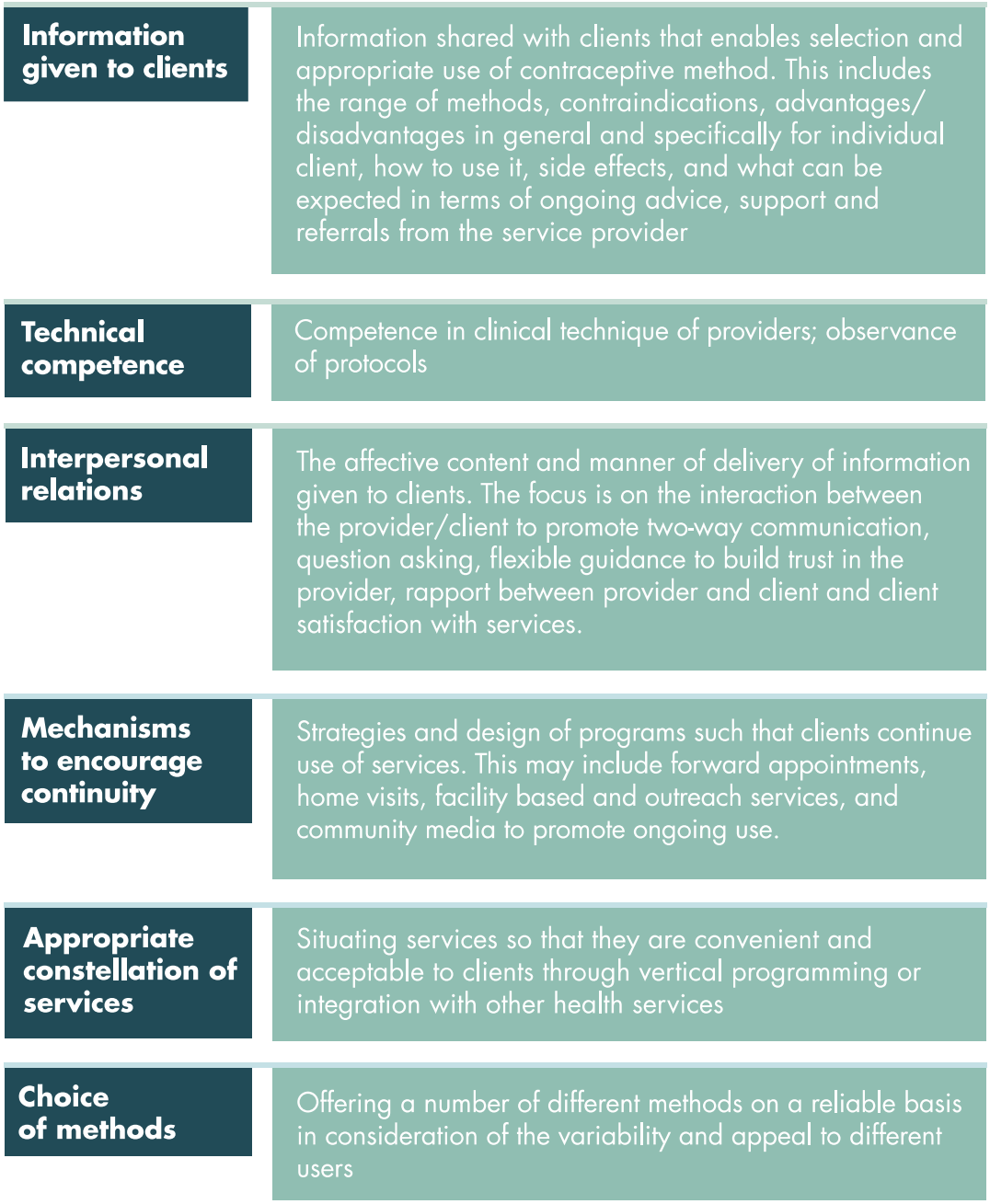
The Bruce-Jain Framework

Developed in the early 1990s, the Bruce-Jain framework for quality established the central paradigm currently used to understand and assess quality in the field of international family planning (Bertrand, 1995; Bruce, 1990). Before this framework was introduced, family planning programs focused on demographic targets and the reach of interventions to meet global objectives in population control. From the late 1980s forward, a patient-centered approach where the well-being of family planning clients (particularly women), and reproductive health rights became a central focus in the design and provision of services. The Bruce-Jain framework is representative of this shift toward balancing quality with program reach.

In several ways, the balance achieved between objectives related to reach versus patient-centered services in family planning applies to the current state of services in the field of HIV. Biomedical interventions such as PrEP and TASP hold promise for greatly reducing HIV incidence if brought to scale, meaning that a certain threshold is met in terms of service reach (HIV/AIDS, 2014). At the same time, the quality of services may be an important determinant of service use. Another similarity between the fields of family planning and HIV is the need to consider social norms that influence health service provision. In family planning, attention to social norms related to the roles and status of women, which in many contexts limit decision-making power over fertility. Although changing these norms was beyond the scope of an individual service provider, understanding and addressing how they influenced services delivery and client experience was noted as an important aspect of quality (Bertrand, 1995). In the same way, the marginalization of MSM and transgender women linked to wider social norms is likely an important aspect of quality HIV service provision for these clients.

The Bruce-Jain framework outlines six domains of quality as follows: information given to clients, technical competence, interpersonal relations, mechanisms to encourage continuity, appropriate constellation of services, and choice of methods. Figure 1 describes each domain.

Figure 1. Six quality domains from the Bruce-Jain Framework



Source: Bruce, 1990.

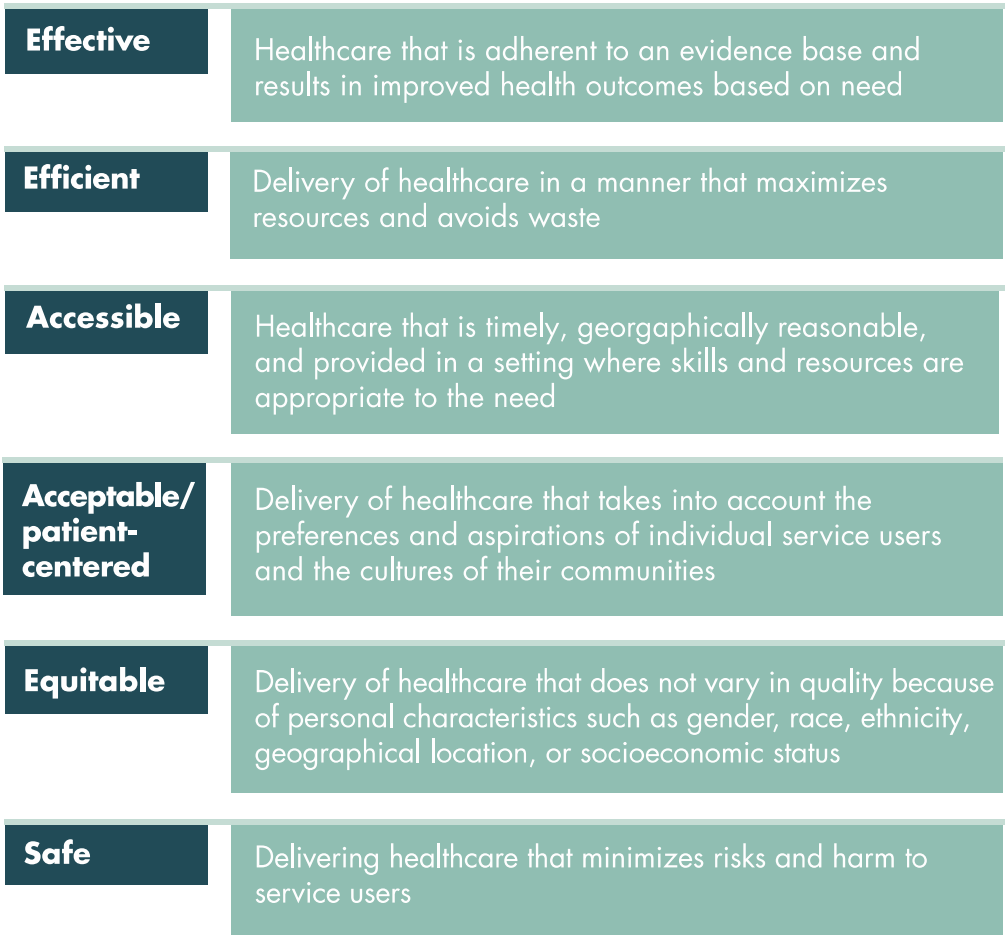
The WHO Concept of Quality of Care

In 2006, the World Health Organization (WHO) published a guide on quality improvement to help national-level decision makers enhance the quality of services from a health systems perspective (Organization, 2006). The document emphasized a "whole-system perspective," with the understanding that increased know-how and resources, in themselves, will not translate into high-quality services. Rather, how the delivery of care is

organized has an instrumental role in the provision of quality care. The document encourages the selection of health goals and quality objectives related to these goals when strategic decisions are made about the provision of services.

WHO defines the six domains of a health system's quality as follows: effective, efficient, accessible, acceptable/patient-centered, equitable, and safe. Figure 2 describes each domain.

Figure 2. Six quality domains from the World Health Organization



Source: World Health Organization, 2006.

HIV-Related Frameworks

Frameworks developed specifically within the field of HIV have focused primarily on assessing the multiple levels of factors that influence vulnerability and exposure to HIV. These frameworks are useful for building causal models that identify the level at which interventions should focus to be effective: for example, individual, community, environmental, and structural levels and distal/proximate determinants (Baral, Logie, Grosso, Wirtz, & Beyrer, 2013; Boerma & Weir, 2005; Hayes, Kapiga, Padian, McCormack, & Wasserheit, 2010; "Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men Who Have Sex with Men, and Transgender People," 2013; Sweat, 1995). However, they do not delineate

specific characteristics of HIV services at each level that would equate to quality service provision. Two exceptions to this exist. The first exception is a document titled *Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men who have Sex with Men, and Transgender People ("Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men Who Have Sex with Men, and Transgender People," 2013)*. This document notes that at the time it was developed, no checklist of quality standards for HIV services existed. Therefore, the authors suggest a checklist of quality standards described as the "Five As" to be used in monitoring and evaluation: adherence to national standards, availability of services, accessibility of services, acceptability of services, and attitudes of service-delivery providers toward users ("Operational Guidelines for Monitoring and Evaluation of HIV Programmes for Sex Workers, Men Who Have Sex with Men, and Transgender People," 2013). The second exception is a document that outlines quality components related specifically to HIV testing and counseling (HTC): *Consolidated Guidelines on HIV Testing Services* (Organization, 2015). This document promotes the "5Cs" necessary to achieve quality HTC: consent, confidentiality, counseling, correct test results, and connection (referrals and linkages across HIV services) (Organization, 2015). (It builds on an earlier publication that proposed "3Cs": consent, confidentiality, and counseling.)

HIV Services

Decades of research related to HIV interventions provide a strong evidence base for the package of HIV services that should be combined for HIV prevention, diagnosis, and treatment (Hankins & de Zalduondo, 2010; Padian, et al., 2011). This evidence has been used to develop a series of guidance documents on the recommended package of services for HIV. In 2011 and 2014, WHO and UNAIDS published guidance on HIV services recommended specifically for key populations including MSM and transgender women ("Policy Brief: Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations," 2014). Further, tools to assist in implementing the recommendations for HIV programs with MSM in 2015 and transgender people in 2016 were also published (United Nations Population Fund, 2015). The recommended HIV services for MSM and transgender women encompass a broad spectrum of behavioral and clinical interventions at the individual, structural, and social levels, and as shown in Table 1 ("Policy Brief: Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations," 2014; United Nations Population Fund, 2015). The current document, focusing on quality domains to be applied to the recommended package of services, complements these recommendations and tools.

Table 1. Recommended HIV services for key populations

HIV prevention	• Provision of condoms and condom-compatible lubricants • Provision of pre-exposure prophylaxis (PrEP) • Provision of post-exposure prophylaxis (PEP) • Implementation of individual and community level behavioral interventions to prevent HIV and STIs • Targeted internet-based information to decrease sexual risk behavior and increase uptake of HIV testing and counseling (HTC) • Social marketing strategies to increase uptake of HIV and STI testing and counseling • Sex venue-based outreach strategies to decrease risky sexual behavior and increase uptake of HTC
HIV testing and counseling (HTC)	• HTC routinely offered both in community and clinical settings • Community-based HTC linked to prevention, care and treatment services • Provider-initiated testing and counseling
HIV treatment and care	• Key populations should have the same access to antiretroviral therapy (ART) and to ART management as other populations
Prevention and management of co-infections and co-morbidities	• Key populations should have the same access to tuberculosis prevention, screening and treatment as other populations at risk of or living with HIV. • Key populations should have the same access to hepatitis B and C prevention, screening and treatment services as other populations at risk of living with HIV. • Routine screening and management of mental health disorders (depression and psychosocial stress) should be provided for key populations living with HIV to optimize health outcomes and improve their adherence to ART.
Substance use and blood-borne infections	• Persons with harmful alcohol or other substance use should have access to evidence-based brief psychosocial interventions involving assessment, specific feedback, and advice. • People who inject drugs should have access to needle and syringe exchange programs and opioid substitution therapy.
Sexual health	• Screening, diagnosis, and treatment of STIs should be offered routinely. • People from key populations, including those living with HIV, should experience full, pleasurable sex lives and have access to a range of reproductive health options, including family planning services.
Critical enablers	• Laws, policies, and practices should be reviewed and, where necessary, revised by policy-makers and government leaders, with meaningful engagement of stakeholders from key population groups, to allow and support the implementation and scale-up of healthcare services for key populations. • Countries should work toward implementing and enforcing antidiscrimination and protective laws, derived from human-rights standards, to eliminate stigma, discrimination, and violence against people from key populations. • Programs should work toward implementing a package of interventions to enhance community empowerment among key populations. • Violence against people from key populations should be prevented and addressed in partnership with key population-led organizations. All violence against people from key populations should be monitored and reported, and redress mechanisms should be established to provide justice.

Source: World Health Organization, 2014b, and the United Nations Population Fund, 2015.

METHODS

We conducted a systematic literature review to determine the appropriate elements of quality for HIV services delivered to MSM and transgender women. To identify published and gray literature for the review, we searched the PubMed database and websites related to this topic. The search was conducted in March and April 2015. Search terms were words and synonyms in three categories: quality attributes, service type, and key population (see Table A1 in the Appendix for a list of terms by category). The search terms used with Boolean operators in PubMed are shown in Box 1.

Box 1. Search term and Boolean Operators Used in PubMed Database Search

"quality" OR "acceptable" OR "access" OR "competent" OR "stigma" OR "judgement" OR "barrier" OR "prejudice" OR "sensitivity" OR "equitable" OR "respectful" OR "knowledgeable"

AND
"bisexual" OR "homosexual" OR "MSM" OR "YMSM" OR "men who have sex with men" OR "gay men" OR "homosexual" OR "same sex" OR "sexual minority" OR "transgender" OR "transsexual"

AND
"HIV" OR "health service" OR "healthcare" OR "health care" OR "HIV service" OR "HIV treatment" OR "HIV testing" OR "provider" OR "worker"

Although access and quality of services are different in principle, we included "access" as a search term because, for key populations, access overlaps with quality. For example, stigma is considered a significant barrier to accessing services among key populations; it is also often a major deterrent for MSM and transgender women to disclose their sexual orientation, which may make services less likely to meet quality standards.

In addition to the published literature, we also searched the gray literature on the following websites relevant to HIV services and key populations: WHO, UNAIDS, the Global Forum on MSM and HIV, Pangaea, the Johns Hopkins Center for Public Health and Human Rights, the Center for Excellence for Transgender Health, the Fenway Institute: National LGBT Health Education Center, the Williams Institute, Center for AIDS Prevention Studies, Global Action for Trans*Equality, and the U.S. Health Research and Services Administration's LGBT Health website. The search on these websites yielded a large number of program reports, case studies, guidance, and policy documents. We reviewed all that met our inclusion criteria, as follows:

1. The document was published between 2000 and March 2015 (we did not include documents published prior to 2000 because of rapid developments in the field since that time).
2. The document was related to the topic of quality of healthcare for MSM and transgender persons.

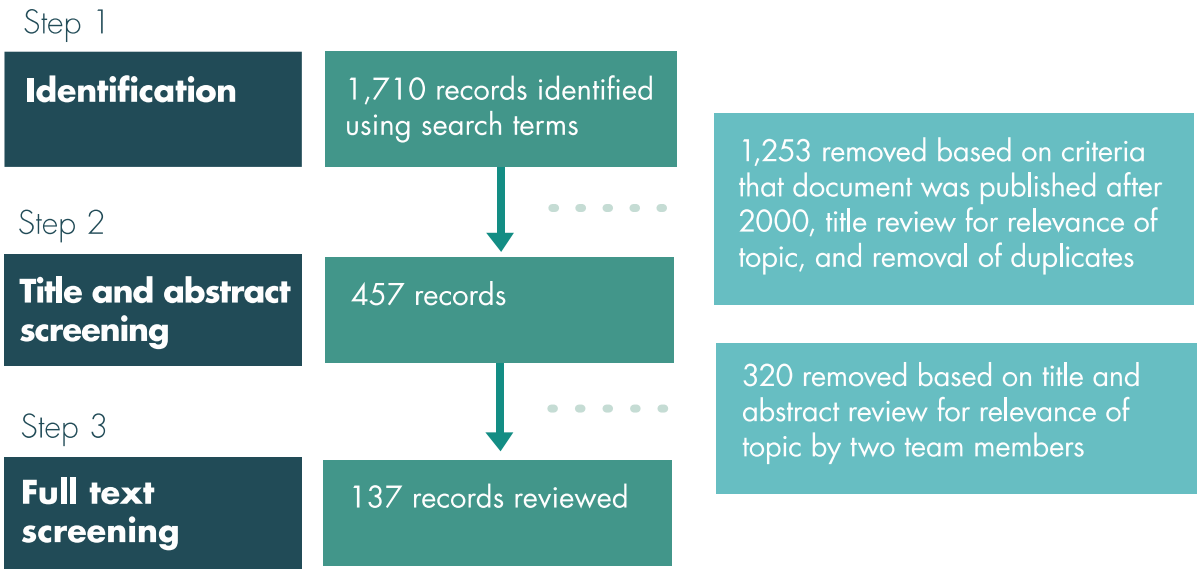
A report or document did not have to be limited to HIV services or healthcare per se, as long as it was in the field of HIV and met these two criteria.

The studies and documents reviewed can be categorized in two broad groups: (1) those that define and describe characteristics of "quality" HIV services among MSM and transgender people and (2) those that aim to promote the provision of quality HIV services. Examples of the first group are commentaries on the special needs of MSM and transgender people in terms of health problems and services and tools and guidance documents to assess the quality of services. Examples of the second group are guidance documents on how to provide quality services, how to train healthcare workers to provide services to these populations, and how to eliminate barriers to obtaining quality services at the individual, facility, and system levels.

Initially, we identified 1,710 documents. Removal of duplicates, elimination of articles published before 2000, and review of titles for relevance reduced the number of documents to 457. The titles and complete abstracts of these documents were further reviewed and were retained if the information presented was related to

defining the appropriate elements of quality for HIV services for MSM and transgender women. Review of title and abstract by two team members reduced the number of documents to the 137 that we ultimately considered.

Figure 3. Flow chart of the review process for document inclusion



Analysis

All documents were imported into the textual analysis software NVivo, Version 10.0 (Ltd., 2012) to facilitate coding and analysis. We had developed a coding scheme based on the existing frameworks of quality of care described in the introduction. We then developed an additional code to capture new concepts. Three members of the research team coded the documents. Initially, the team members piloted and revised the coding scheme through a consultative process. The three coders then coded separate documents, meeting as necessary when questions arose about specific texts. Codes were applied to text in each of the documents that represented the concept symbolized by that code. In addition to codes, attributes were assigned to each document to identify: (1) the focus population of the document (MSM; transgender women; or both); (2) the venue of service delivery discussed (facility-based; community or outreach; home-based; or multiple); (3) the geographic region of focus (North America, Europe, or Australia; Latin America and the Caribbean; Asia; Africa; or global standard/guidance); and (4) the perspective from which the document was written (provider; client; or both).

The query function was used to extract relevant text from the documents for review by individual code. Within each code, the attribute designation indicating focus population (MSM or transgender women) was used to consider similarities and difference of code concepts by population. This allowed us to determine if the salience of the code, and if particular aspects of the code, differed for MSM and transgender women. Summaries for each code were prepared. Because of a considerable amount of overlap among codes, in the results section we summarize findings by clustering results for codes representing similar concepts. We then synthesize the results to propose an analytical framework for quality HIV services among MSM and transgender women, including key domains and their meaning.

RESULTS

Summary of Documents Included in Review

Most of the 137 documents reviewed focused on MSM populations (43%) or were applicable to both MSM and transgender women (42%) (see Table 2). Only 15 percent of documents focused exclusively on transgender people, indicating a need for additional research among this group. However, although there were fewer documents for transgender women, the relevance of the documents available to the topic of quality HIV services for this population was high. Most documents focused on service delivery at the facility-level (53%), or were applicable to multiple types of venues without one specific focus (38%). Few documents focused principally on community-based or outreach services (9%), and only one focused on home-based care. There was a strong bias toward high-income countries in the literature available for the review: 66 percent of documents or studies were conducted in North America, Europe, or Australia. The next most prevalent context was the Africa region, represented in 9 percent of documents. Few documents were available that focused exclusively on Latin America and the Caribbean (5%) or Asia (4%), although several of these documents provided a substantial amount of critical text for coding related to quality. Fifteen percent of the documents were global in focus (systematic reviews, global guidance documents, etc.). As for perspective, most documents were written from the provider perspective, or to support provider recommendations (42%). Twenty-six percent were written from the client perspective, and 15 percent represented both the client and provider perspective. For 18 percent of the documents, the focus was general and

Table 2. Attributes of documents included in literature review

Document attribute	Number (%)
Focus population	
MSM	59 (43%)
Transgender women	20 (15%)
Both MSM and transgender women	58 (42%)
Venue of service delivery	
Facility-based	72 (53%)
Community-based and outreach	12 (9%)
Home-based	1 (<1%)
Multiple	52 (38%)
Geographic location	
Africa	12 (9%)
Asia	6 (4%)
Latin American and Caribbean	7 (5%)
North America, Europe, Australia	91 (66%)
Global standard or other global document	21 (15%)
Perspective	
Client	35 (26%)
Provider	57 (42%)
Both client and provider	20 (15%)
Not applicable	25 (18%)

Box 2. Areas Where Additional Information Is Needed for Quality

In community-based, outreach, and home-based HIV service settings

For transgender women

In Asia, Latin American and the Caribbean

addressed healthcare issues overall, but were not client- or provider-specific. Table A2 in the Appendix provides detailed information for each document: the year of publication, author, population focus, venue, perspective, and document type (research study or commentary/guidance).

Characteristics of Quality Reported in the Literature

As noted in the Methods section, each document was coded to identify domains of quality from seminal frameworks and HIV-specific guidance documents. We also coded to identify new emerging concepts of quality. Multiple aspects of quality were emphasized in the literature from each of the frameworks, while others were given less attention. We will summarize only the concepts highlighted as important in the literature. Among the aspects of quality that were emphasized, there was considerable overlap in domains emerging from the literature. We clustered results from similar domains across the frameworks, which led to the following six sections:

- Patient-centeredness and acceptability
- Interpersonal relationships between providers and clients
- Stigma and discrimination
- Constellation of services, choice of methods, efficiency, and effectiveness
- Technical competence
- Confidentiality and consent

There is substantial overlap in the concepts presented in each of the six sections. The order in which we present the findings indicates the degree to which the concepts were given importance in the literature (from highest to lowest). This determination was based on the number of documents that note the concept as an important aspect of quality HIV service provision, and the emphasis placed on the concept in descriptive text of the documents.

Patient-Centeredness and Patient Acceptability

"Patient-centered and acceptable health services" is a key dimension outlined in the WHO framework for quality that was also highly emphasized in the literature reviewed specific to HIV services for MSM and transgender women. The WHO framework defines patient-centered care that is acceptable as "delivery of healthcare which takes into account the preferences and aspirations of individual service users and the cultures of their communities" (WHO, 2006). The findings from the literature for this domain can be summarized in two main categories: provider knowledge of diversity in sexual orientation and gender identity (including appropriate terminology); and provider knowledge of medical problems for which MSM and transgender women are at greater risk, including the underlying causes of those problems. In addition to provider-level interactions, patient-centered care is also determined by policies and procedures at the facility and organizational levels. The design and delivery mechanisms for services are a final important aspect of patient-centered care to consider.

Knowledge of Diversity in Sexual Orientation and Gender Identity

Many articles reported that providers should have an understanding of the differences between sexual orientation and gender identity, and the diversity within each group. In addition, providers should know related terminology and how to use it effectively with clients ("Best Practices in HIV Prevention: Translating Innovation into Action," 2014; "Expert Consultation on Implementation Science and Operational Research

Priorities for Strengthening Access to Care and Treatment Services for MSM Living with HIV," 2014; "HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005; Makadon, 2011; McNair & Hegarty, 2010; Muller, 2014; Peate, 2013). The use of appropriate language was heavily emphasized in documents related to transgender health specifically ("8 Best Practices for HIV Prevention among Trans People," 2009; "Best Practices in HIV Prevention: Translating Innovation into Action," 2014), and included an emphasis on the use of gender-neutral pronouns or the correct pronoun, based on client self-identification ("8 Best Practices for HIV Prevention among Trans People," 2009; "HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005; Makadon, 2011; "Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender populations," 2009; "Providing Welcoming Services and Care for LGBT People: A Learning Guide for Health Care Staff," 2015; Roberts & Fantz, 2014). Providers should also ask only questions related to the client's care and refrain from questions based on curiosity ("Affirmative Care for Transgender and Gender Non-Conforming People: Best Practices for Front-line Health Care Staff," 2013; "Best Practices in HIV Prevention: Translating Innovation into Action," 2014; Kennedy, O'Reilly, Medley, & Sweat, 2007; "Providing Welcoming Services and Care for LGBT People: A Learning Guide for Health Care Staff," 2015). For MSM, use of language was more commonly discussed in reference to sexual and romantic partners. For example, it was recommended that providers use the term "partner" or "spouse" rather than "husband" or "wife" in initial conversations with clients (A. E. Daley & Macdonnell, 2011; Muller, 2014). Both for transgender people and MSM, it was recommended that providers either begin interactions with clients using gender-neutral terminology (McNair & Hegarty, 2010), and then mirror the language used by patients (Makadon, 2011), or that providers begin by asking clients what pronouns they preferred (Makadon, 2011; "Providing Welcoming Services and Care for LGBT People: A Learning Guide for Health Care Staff," 2015). Correct use of language was noted as important for auxiliary healthcare providers in addition to clinicians, and especially among staff responsible for registration ("Expert Consultation on Implementation Science and Operational Research Priorities for Strengthening Access to Care and Treatment Services for MSM Living with HIV," 2014). In cases where official documentation on insurance papers and identification cards do not match the correct name of the client, registration staff should make note of this and pass the information on to providers so that they refer to the client in the correct manner. One mechanism suggested was to ask all clients for a preferred name or nickname on intake forms ("Providing Welcoming Services and Care for LGBT People: A Learning Guide for Health Care Staff," 2015).

Knowledge of Health Needs for MSM and Transgender Women and Underlying Causes

Box 3. Health problems Affecting MSM and Transgender Women in Addition to HIV

- Mental health (suicide ideation, stress, depression)
- Substance use
- Other STIs

MSM and transgender women are at increased risk for certain health problems: mental health problems (suicide ideation, stress, depression); substance use that may result from internal and external stigma; and sexual health-related problems (STIs, including HIV). Ability to provide patient-centered and acceptable care requires healthcare providers to be aware of health disparities and increased health risks for sexual minority clients, as well as the underlying factors that lead to these disparities (Banwari, Mistry, Soni, Parikh, & Gandhi, 2015; Beyrer, Sullivan, et al., 2012; Brennan, Barnsteiner, Siantz, Cotter, & Everett, 2012; Brotman, Ryan, Jalbert, & Rowe, 2002; A. E. Daley & Macdonnell, 2011;

Box 4. How to Promote MSM and Transgender Women as Health Service Providers

Short Term:

- Provide special trainings and promote peer referral and education programs
- Mandate board and other membership in organizational charters

Long Term:

- Support advocacy and programs to prevent school drop-outs
- Support scholarships and fellowships for MSM and transgender women to receive tertiary degrees in medical professions

Eady, Dobinson, & Ross, 2011; Kelley, Chou, Dibble, & Robertson, 2008; Makadon, 2011; Mayer, et al., 2012; Muller, 2013; Obedin-Maliver, et al., 2011). For HIV care specifically, providers should understand how health problems may act synergistically to affect HIV-related care and retention (for example, substance use undermining treatment adherence) ("Best Practices in HIV Prevention: Translating Innovation into Action," 2014). Moreover, providers should know how to mitigate factors (for example, stigma) leading to health disparities. This can be accomplished both through their own interactions with clients and through referral to appropriate legal and social services (Remien, et al., 2003). Knowledge of appropriate referrals and efficient means of linking clients was noted as particularly important in mitigating the underlying factors leading to poor health outcomes (Mayer, et al., 2012).

The wider literature on patient-centered or culturally competent care focuses primarily on providing care to clients of diverse racial and ethnic backgrounds, and emphasizes aspects of culture such as customs, values, and beliefs as important. In contrast, the MSM- and transgender-specific literature we reviewed rarely provided descriptions of culture in the traditional sense. Several documents noted a lack of cohesive understanding of the culture of sexual minority populations as a limitation in general and in healthcare service provision (Daley & MacDonnell, 2015; Merryfeather & Bruce, 2014). Rather, the most commonly noted aspect of culture was the shared experience of living within heteronormative and gender-binary (male/female) societies, and the resultant external and internal stigma experienced. A number of documents expressed the importance of having healthcare providers who are themselves MSM and transgender women—the underlying assumption being that they would better understand and address the values and beliefs of clients ("HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005; J. M. Sevelius, Patouhas, Keatley, & Johnson, 2014). Yet these values and beliefs were not clearly articulated.

The concept of culture should not be limited to the shared experience of stigma and social marginalization. It is important to understand shared customs, values and beliefs of local MSM and transgender populations when designing quality HIV services.

Many documents noted the importance of providers understanding the influence of sexual orientation and nonconforming gender identity stigma on health-seeking behavior ("Affirmative Care for Transgender and Gender Non-Conforming People: Best Practices for Front-line Health Care Staff," 2013; Araujo, Montagner, da Silva, Lopes, & de Freitas, 2009; Brotman, Ryan, & Cormier, 2003; "Guide for HIV/AIDS Clinical Care," 2014; "HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005; McNair & Hegarty, 2010; Muller, 2013; Natale & Moxley, 2009; Peate, 2013; Schilder, et al., 2001) and as a trigger for behaviors such as substance use and sexual risk behavior that may increase health risks (Beyrer, Sullivan, et al., 2012; Mayer, et al., 2012). As stated in one article, "Providers need to recognize that patients' emotional states affect their ability to solve problems and attend to important medical or social issues" ("HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005). However, limited guidance was given on how to mitigate these larger social influences in the clinical setting. An exception was the recommendation of ways to appropriately take health and sexual histories, such that clients are not forced to

disclose information about their sexual orientation and gender identity unless they feel comfortable doing so (Ayala, et al., 2011; "Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014; Brennan, et al., 2012; Erdley, Anklam, & Reardon, 2014; Makadon, 2011; McNair & Hegarty, 2010). One article did suggest that providers could address the root causes of maladaptive behavior resulting from social stigma by "becoming familiar with local outreach agencies, hotlines, and media that can connect MSM with positive role models and social opportunities" (Mayer, et al., 2012). Several documents suggested that a key way for providers to gain knowledge about MSM and transgender women was to increase providers' exposure to people from these populations through training about the needs of these communities (Jin, et al., 2014) and by working alongside providers from these populations in direct service delivery (Beattie, et al., 2012; A. Daley & MacDonnell, 2015; "Expert Consultation on Implementation Science and Operational Research Priorities for Strengthening Access to Care and Treatment Services for MSM Living with HIV," 2014; Mansh, Garcia, & Lunn, 2015; Melendez & Pinto, 2009; Natale & Moxley, 2009).

Several articles noted that providers should be prepared to counsel clients who have diminished social support as a result of stigma, and thus may lack family and other relationships that would help support the "architecture of adherence"(Natale & Moxley, 2009; Remien, et al., 2003) for those on HIV treatment. One article suggested training for providers to be able to provide same-sex spousal counseling (Beyrer, Sullivan, et al., 2012). Other articles noted a need to understand the "gay lifestyle," (Mayer, et al., 2012; Merryfeather & Bruce, 2014; Natale & Moxley, 2009) but did not describe what this means. In one qualitative study conducted among providers in a U.S. setting, "gay lifestyle" was equated with "…values that were more liberal, pursuant of independence and more concerned with sexual freedom" (Lawlor & Braunack-Mayer, 2004). Another article reported substance use as a cultural factor for MSM, supported through behavioral norms as well as environments such as bathhouses (Natale & Moxley, 2009). A clear limitation is that most of the research overall, and the few studies that discuss cultural aspects of the MSM and transgender communities (beyond noting those aspects' importance in providing care), have been conducted in U.S. settings.

For transgender populations, homelessness, unemployment, low income, and thus limited access to care were emphasized as social factors resulting from stigma that in turn influence health-related behavior ("Affirmative Care for Transgender and Gender Non-Conforming People: Best Practices for Front-line Health Care Staff," 2013; Kennedy, et al., 2007). It was also reported that transgender client desires may not align with those of providers and health systems in terms of health priorities. Specifically, gender-affirming needs including hormones may take precedence from the clients' perspective over concerns about HIV care ("HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005). It is important for providers to be aware of the health priorities of clients, and how HIV testing, care, and retention fit within larger overall health goals.

> *A patient's cultural background influences health-related beliefs and behaviors, and personal or historical adverse experiences may make some patients distrustful of medical care. In addition, some patient's distrust of medical research can impede their willingness to access new drug therapies.*
>
> *—Guide for HIV/AIDS Clinical Care,* 2014

Building an understanding of how people's background, relationships, and experiences are shaped by community stigma toward sexual minorities was noted as one way to build trust with clients and thereby increase quality ("Guide for HIV/AIDS Clinical Care," 2014). Experiences of discrimination within and outside the health system may result in distrust of the medical establishment, which may prevent health service use altogether or prevent clients from sharing important information with their providers for fear of discrimination (Erdley, et al., 2014; Foglia & Fredriksen-Goldsen, 2014; Rounds, McGrath, & Walsh, 2013). Providers must be aware of a potential lack of trust, and take care to alleviate clients' concerns through

sensitive health-history taking (Ard, 2012; Brotman, et al., 2003) and use of appropriate language, as noted above (Coren, Coren, Pagliaro, & Weiss, 2011; Polly & Nicole, 2011; J. Sevelius, 2013). Another way to build trust may be to include sexual minorities as providers ("HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005; Iguchi, et al., 2009; J. M. Sevelius, et al., 2014), although this may also require heavy emphasis on confidentiality if people from the same social community serve as providers to clients. At the same time, it is also important to acknowledge that gender- and sexual-minority providers themselves may face stigma and discrimination within the healthcare field and from other providers. For example, one study conducted among providers in the United States noted that providers from these populations experienced challenges like "derogatory comments, humiliation, harassment, fear of being ostracized, and residency/job placement discrimination" (Mansh, et al., 2015).

A major consequence of a lack of understanding of culture for sexual minority populations, outside of the shared experience of stigma, is the propensity for providers to lump all sexual minority populations together as one group ("Best Practices in HIV Prevention: Translating Innovation into Action," 2014; Callahan, et al., 2015; A. E. Daley & Macdonnell, 2011; Erdley, et al., 2014; "Gay Men and Other Men Who Have Sex with Men," 2014; "Guide for HIV/AIDS Clinical Care," 2014; "HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005; Johnson, Mimiaga, & Bradford, 2008; Lombardi, 2001; Mayer, et al., 2012; Melendez & Pinto, 2009; Merryfeather & Bruce, 2014; Peate, 2013; Ross, et al., 2015). To some degree, this has been perpetuated by the use of the umbrella term "men who have sex with men," which until recently was also used in the field of HIV to refer to transgender people ("Prevention and Treatment of HIV and Other Sexually Transmitted Infections Among Men Who Have Sex with Men and Transgender People: Recommendations for a Public Health Approach," 2011). Sexual orientation and gender also intersect with other identities that are important to understanding how to provide care: for example, variation across race and ethnicity; socioeconomic status ("Gay Men and Other Men Who Have Sex with Men," 2014; Mayer, et al., 2012); education; geography; religion; and political affiliation (C. V. Johnson, et al., 2008). Attention to clients as individuals with varying backgrounds beyond sexual orientation and gender identity is an important aspect of providing quality care, especially the longer-term care needed for HIV treatment.

A particularly important variation within sexual minority populations to consider is age. For example, research conducted in the United States indicates that older MSM may experience more stigma and social isolation due to a propensity for older generations to hold more conservative and stigmatizing attitudes (Erdley, et al., 2014; Foglia & Fredriksen-Goldsen, 2014; Peate, 2013; Sharek, McCann, Sheerin, Glacken, & Higgins, 2014). In contrast, MSM and transgender youth may present their providers with different needs owing to their stage of cognitive development, probable lower level of self-acceptance, and subsequent "outness" to providers and social and kin relations (Ginsburg, et al., 2002). Transgender youth may experience increased isolation, if they are still figuring out and going through the gender-affirming process (Cruz, 2014). Again, most literature on variability within sexual minority populations and quality care is from high-income settings. Although one study in Botswana investigated the emergence of a local gay culture among lesbian, gay, bisexual, and transgender (LGBT) populations to "emancipate from the Western gay culture" (Ross, et al., 2015). This highlights the importance of developing

Box 5. Ways to Promote Quality at the Organizational Level

- Gender-neutral bathrooms
- Public posting of nondiscrimination policies
- Educational literature that depicts MSM and transgender people
- Intake forms that include gender nonconforming identities and nicknames
- Policies allowing same-sex partner, spousal, and kin privileges in decision making
- Hiring criteria that require provider knowledge and skills in MSM and transgender health

a contextually specific understanding of local MSM and transgender cultures and identifying the relevant intersecting identities in each context.

Policies, Procedures, and the Service Delivery Environment

A number of documents reported that delivery of patient-centered care is influenced by policy and organizational-level factors in addition to individual provider interactions. For example, within the service delivery environment, having facilities with gender-neutral or single occupancy restrooms, public posting of nondiscrimination policies, availability of educational and other literature with pictures of MSM and transgender women clients, and monitoring of waiting rooms to mitigate instances of harassment from other clients (Coren, et al., 2011; National LGBT Health Education Center 2013, 2014, 2015) are ways to create a welcoming environment for these populations. Organizational policies and standard operating procedures can also support patient-centered care through nondiscrimination policies that include MSM and transgender women (Polly & Nicole, 2011), and policies that allow same-sex partners to be at the bedside of clients and other spousal or kin-related privileges (Foglia & Fredriksen-Goldsen, 2014). Use of intake forms and other relevant documents that allow clients to enter their preferred name, gender identity, and pronouns for partners is also important ("Affirmative Care for Transgender and Gender Non-Conforming People: Best Practices for Front-line Health Care Staff," 2013). Training curriculum, guidelines, and enforcement of guidelines should be adopted as part of standard operating procedures at the organization or facility level to ensure nondiscrimination on the part of providers and staff (including registration and security personnel) ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014; "Expert Consultation on Implementation Science and Operational Research Priorities for Strengthening Access to Care and Treatment Services for MSM Living with HIV," 2014; Foglia & Fredriksen-Goldsen, 2014; Polly & Nicole, 2011).

Location and Involvement of MSM and Transgender Women in Service Delivery

Another aspect of patient-centered care that moves beyond provider-level interactions is the design of service delivery, including the location and mechanism by which care is delivered. For MSM and transgender women clients, outreach and community-based service delivery (for example, bars, parks, and clubs) should be coupled with availability of services at static health facilities (Natale & Moxley, 2009). HIV services should be coordinated with other care needs of MSM and transgender women ("HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005). The use of technology is also important and culturally relevant. Online services are increasingly used by MSM and transgender women globally and in LMICs as a mechanism to avoid homophobia and transphobia. Similar online platforms could be used to promote HIV service use, including retention and follow-up care for people living with HIV (Allison, Adams, Klindera, Poteat, & Wolf, 2014). In this regard, a particularly useful document is a commentary (Allison, et al., 2014) that illustrates examples of innovative uses of technology for HIV services aimed at MSM and transgender women: websites, online chat rooms, SMS messaging programs, YouTube campaigns, social networking sites, and email blasts, among other techniques. Although these different service delivery mechanisms are perhaps beyond the scope of quality at the provider or individual organization level, they should be considered at the health systems level.

Involvement of MSM and transgender women in the design and delivery of services was also highlighted as an important way to ensure that services are patient-centered (Allison, et al., 2014; Beattie, et al., 2012; A. E. Daley & Macdonnell, 2011; "Expert Consultation on Implementation Science and Operational Research Priorities for Strengthening Access to Care and Treatment Services for MSM Living with HIV," 2014; Natale & Moxley, 2009). This can be accomplished by including gender and sexual minorities as part of the provider team, as previously noted. Measuring community involvement is an important indicator of the degree to which programs strive to become patient-centered (Mansh, et al., 2015).

Interpersonal Relationships between Providers and Clients, and Information Given to Clients

Interpersonal relationships and information given to clients are two of the six domains included in the Bruce-Jain framework for quality of care (Bruce, 1990) that also emerged as important themes in the literature we reviewed. As the framework indicates, interpersonal relationships refer to the affective interactions between providers and clients during service provision. These interactions support a high quality of care when the client perceives them as positive and productive exchanges. They are promoted by understanding, respect, honesty, two-way communication, question-asking, and flexible guidance (rather than authoritarianism). This yields trust in the provider, belief in the provider's competence, and willingness to contact the provider. Interpersonal relationships are different from but related to information giving, which refers to the content of counseling that enables clients to choose and employ appropriate health services. Information also entails what clients can expect from providers in terms of service provision, and the making of referrals in a way that clients understand and that fits with their cultural backgrounds (Bruce, 1990).

Interpersonal Relationships

Results from the literature review indicate that the issue of trust in the relationships between providers and clients is of paramount importance. Clients must feel that healthcare providers are willing to listen to them in a sensitive, responsive, and nonjudgmental way before they can share their sexual orientations and healthcare needs. Trust is important to assure clients that information they share with providers will remain confidential. This is especially important for adolescents and young adults who may be experimenting with their sexuality (Adams, McCreanor, & Braun, 2008; Beattie, et al., 2012). `

How a provider sits, the use of gesture, personal distance, facial reactions, and eye contact are some of the ways that providers can promote comfort and foster trust of gender- and sexual-minority clients.

A provider's interactional style may directly influence clients' level of comfort, whether they would be willing to disclose their HIV status and sexual orientation, and the perceived quality of care (Sharek, et al., 2014). For example, some studies reported that clients would feel uncomfortable or under pressure to disclose their sexual identity if providers ask excessive questions about sexual orientation and practices (Eady, et al., 2011; Knight, Shoveller, Oliffe, Gilbert, & Goldenberg, 2013). This is because provider-client relationships can be perceived as "asymmetrical" and "hierarchical" and communications are often one-way, with providers asking questions and clients answering them (Klitzman & Greenberg, 2002). Asking many questions can also be perceived by clients as providers' taking advantage of the opportunity to educate themselves about sexual minorities and contribute to negative experiences with services (Eady, et al., 2011). In several documents, clients (bisexuals and young people experimenting with their sexuality) reported negative experience of services, because providers had pressed them to assert a certain sexual identity when they were not ready to do so. Conversely, if providers do not ask questions and only make assumptions about clients' sexual identity, clients may not volunteer to share this information. This also applies to disclosure of HIV status (Bairan, et al., 2007), despite the fact that many clients are aware of potential health consequences if they do not disclose their HIV status.

Nonverbal communication was often described as an important way that service providers can influence the level of comfort during a service visit (Stover, Hare, & Johnson, 2014). Some studies have reported that providers whose jobs involve touch were less comfortable than others around HIV-positive clients and more likely to keep a distance from them (Abell, Rutledge, McCann, & Padmore, 2007). Not making any assumptions about sexual identity and practices, and asking questions instead, is also preferred by many gender- and sexual-minority clients (Coren, et al., 2011; Rounds, et al., 2013). For example, some providers reportedly made assumptions about promiscuity and immorality associated with sexual orientation (Schilder,

et al., 2001). It is important and recommended that healthcare providers deconstruct their personal attitudes and values to approach care provision from an open-minded perspective (Callahan, et al., 2015; Foglia & Fredriksen-Goldsen, 2014; Ginsburg, et al., 2002; Lawlor & Braunack-Mayer, 2004; Makadon, 2011).

Providers reportedly do recognize that many MSM and transgender women experience discomfort and anxiety when asked about sexual orientation and practices (Knight, et al., 2013). There are a few strategies that providers employ in order to minimize this discomfort. For example, some providers de-emphasize or eliminate questions related to sexual identity. While this approach may reduce anxiety among some clients, it may not be helpful for others who would not otherwise share their sexual orientation. Alternatively, providers approach service provision with a gender-neutral perspective. While this approach may help clients feel more comfortable, a potential disadvantage is that it may limit opportunities to provide services that are patient-centered and that address health needs specific to MSM and transgender women populations.

Information Given to Clients

The quality of information provided by healthcare providers is seen by clients as an important factor of service quality. At a basic level of quality, the information given to clients should be accurate. It is important for service providers and support staff to be aware of issues of low self-esteem and depression that many MSM and transgender women may be dealing with, be sympathetic, assure clients that they are being listened to, and make them feel acknowledged as whole persons (Hoffman, Freeman, & Swann, 2009; Stutterheim, et al., 2014). Two-way communications and trust between providers and clients are crucial to address mistrust and stigma, which are major barriers in the ability of gender- and sexual-minority groups to access care, stay in care, and disclose sensitive information ("Transgender HIV/AIDS Health Services Best Practices Guidelines," 2007). In one study of heterosexual and homosexual doctors (Lawlor & Braunack-Mayer, 2004), it was reported that "listening to the patient is important… I mean actually hearing what they're saying and sometimes hearing what they're not saying." Belittling a client's responses, making stereotyping comments to a client, and arguing about a client's response are some examples of how interaction with a provider can be a negative experience for a client (Rounds, et al., 2013).

Information should be communicated in a manner that is understood by the client through techniques such as two-way communication, using easily understood terms, and giving clients opportunities to share and to ask questions.

An increasingly important aspect of the quality of information is the recognition and inclusion of a same-sex partner in care and consultations. Individuals in same-sex couples often reported that they were less likely than other clients to be listened to or to have had enough time with providers (Coren, et al., 2011). This is particularly problematic in contexts where same-sex partnerships are not legally recognized. Even in the United States, where legal recognition of same-sex partnerships has recently occurred, same-sex partners are often excluded from information sharing and from participating in healthcare decisions with their partners (Jackson, Johnson, & Roberts, 2008).

The specific type of information that should be communicated was less emphasized in the literature. Of the few documents that referenced the importance of specific information given to clients, a majority noted that there was a lack of emphasis on education about the natural progression of HIV as a disease and about ART (Bankoff, McCullough, & Pantalone, 2013; Beattie, et al., 2012; Chakrapani, Newman, Shunmugam, & Dubrow, 2011). Rather, programs focused mostly on HIV prevention and condom use (Chakrapani, et al., 2011). This was noted as an important gap to fill, primarily to

Several documents note the need to communicate more information about the natural progression of HIV and how antiretroviral therapy works in addition to standard information about safe sex and condom use.

increase treatment adherence but also because correct information in this area could also motivate people to test for HIV (Beattie, et al., 2012). For people living with HIV, correct information delivered in a manner that is easy to comprehend was correlated with lower levels of anxiety and depression (Bankoff, et al., 2013). It was also noted that more information needs to be delivered in relation to emerging prevention technologies, especially PrEP (Wilson, 2011). However, this should be context-specific, given that PrEP is not currently available in LMICs. Other areas where there was a perceived gap in information given to clients was in how to navigate the healthcare system, especially in relation to insurance coverage and referrals ("Guide for HIV/AIDS Clinical Care," 2014; Ross, et al., 2015; Snelgrove, Jasudavisius, Rowe, Head, & Bauer, 2012). In contexts where MSM are stigmatized, and in generalized epidemic settings, it was noted that information specific to HIV among gender and sexual minorities was lacking. In this case, HIV messaging solely focused on heterosexual transmission, and could be improved by including messages directly related to MSM and transgender women ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014; Wirtz, et al., 2014). These issues were similar for MSM and transgender women, with the exception that an overall dearth of information about transgender healthcare exists both for HIV and for the transitioning process (Snelgrove, et al., 2012).

Stigma and Discrimination

The majority of the documents cited stigma and discrimination as major, and probably the most important, barriers preventing gender- and sexual-minority groups from accessing and receiving quality care. Problematic stigma and discrimination from healthcare providers ranged from negative attitudes to health workers' outright refusal to provide services (S. Arreola, Ayala, G., Banos, O., Beck, J., Keatley, J., Sundararaj, M., 2010). Homophobia and transphobia create an environment where sexual minorities do not feel comfortable talking to service providers and do not want to disclose their sexual identity and practices for fears of negative consequences (Cruz, 2014; Erdley, et al., 2014; Makofane, 2014; Roberts & Fantz, 2014; Sharek, et al., 2014). The manifestations of discrimination vary from derogatory comments made by service providers and staff to refusal to provide services or prescribe medication without conducting exams to prescribing ineffective medication (Beattie, et al., 2012; Chakrapani, et al., 2011; Lane, et al., 2011; Mansh, et al., 2015; Rounds, et al., 2013). Individuals who are bisexual may also experience negative judgment from providers who pathologize bisexuality and focus on their sexual identity and practices while ignoring other health issues (Eady, et al., 2011; Makofane, 2014). Other expressions of homophobia are embarrassment, anxiety, pity, excessive curiosity, avoidance of physical contact, breach of confidentiality, and verbal and nonverbal harassment (Brotman, et al., 2003; Rutledge, Abell, Padmore, & McCann, 2009). Mistrust of the healthcare systems, fears and anxiety, and avoidance of care are examples of direct consequences of stigmatizing attitudes and discrimination (Polly & Nicole, 2011).

MSM and transgender women face real and perceived stigma and discrimination on a daily basis across different areas of life, but they are diverse groups and can have very different stigma experiences. Stigma and discrimination can vary depending on clients' identity, experience, and social position (Cruz, 2014; Lombardi, 2001). For example, in one study conducted in South Africa, MSM presenting for rectal STIs were vulnerable to discrimination, because the conditions were a confirmation that the men engaged in a taboo sexual practice (anal sex) (Lane, Mogale, Struthers, McIntyre, & Kegeles, 2008). A transgender woman who transitioned before turning 30 might be more likely to experience discrimination than someone who transitioned after the age of 30 (Cruz, 2014). Older adults have reported more subtle biases and discrimination than younger gender and sexual minorities (Erdley, et al., 2014; Ettner, 2013). In settings where same-sex partnerships are not legally recognized, many life partners are not allowed to participate in making healthcare decisions or to share living facilities (Jackson, et al., 2008).

Even if providers themselves are not prejudiced against gender- and sexual-minority groups, they may still be reluctant to provide services, for fear that their peers or the larger community will stigmatize them and punish

them for doing good deeds (i.e., "courtesy stigma") (Abell, et al., 2007; Klotzbaugh & Spencer, 2014; Rutledge, et al., 2009; Wolf, Cheng, Kapesa, & Castor, 2013). Due to their social and cultural environment, providers may also have an unconscious bias against people with nonconforming sexual identity; this bias has been reported in the United States (Foglia & Fredriksen-Goldsen, 2014) and South Africa, where the environment is legally or socially restricted with respect to sexual orientation and practices (Muller, 2013). For this reason, the personal values of providers should be assessed and any that are negative toward gender- and sexual-minority clients should be mitigated (Saleh, Operario, Smith, Arnold, & Kegeles, 2011; Taegtmeyer, et al., 2013). The extent of stigmatizing attitudes and discrimination also varies by the religion of providers (Klotzbaugh & Spencer, 2014). For example, one study in Malaysia found that Muslim medical students had more negative attitudes toward MSM than students from other religions did (Jin, et al., 2014). Consequently, it is important to emphasize that health service providers have an obligation to be nondiscriminatory and nonjudgmental in their work, regardless of their own social and religious beliefs (Muller, 2014).

Stigma related to sexual orientation and gender identity can also intersect with other types of stigma that clients experience. For gender- and sexual-minority people living with HIV, stigma and discrimination are compounded, making them especially vulnerable individuals (W. D. Johnson, et al., 2008; J. M. Sevelius, et al., 2014; "Transgender HIV/AIDS Health Services Best Practices Guidelines," 2007; Wilson, 2011). In the United States, it has been noted that racial discrimination adds to the complexity of the scenario, making it even harder for black gender and sexual minorities to access care than their white counterparts. For example, one study reported inequitable access to PrEP between black and white clients and provider bias related to race (Calabrese, Earnshaw, Underhill, Hansen, & Dovidio, 2014).

Constellation of Services, Choice of Methods, Efficiency, and Effectiveness

In this section we synthesize findings from the literature for four constructs from the Bruce-Jain and WHO frameworks that relate to the design and implementation of quality HIV services. From the Bruce-Jain framework this includes constellation of services and choice of methods. "Constellation of services" refers to the design of services so that they are convenient, acceptable to clients, and appropriate for the health needs of the population (Bruce, 1990). Choice of methods refers to the integration of the appropriate package of services (Bruce, 1990). From the WHO framework, we summarize findings related to efficiency, which refers to services delivered in a manner that maximizes resources and avoids waste, and to effectiveness, which refers to interventions based on evidence (Organization, 2006).

Constellation of Services

As noted in the introduction, several guidance documents published by WHO and UNAIDS provide recommendations for the package of HIV services that should be provided for MSM (United Nations Population Fund, 2015) and transgender women ("Policy Brief: Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations," 2014) based on a review of the evidence. Our review of the literature also aligned with the recommendations and supports the inclusion of STI and sexual health, mental health, and substance use services in coordination with HIV services and substance use services (Beyrer, et al., 2011; Conviser & Pounds, 2002; "Guide for HIV/AIDS Clinical Care," 2014; Lombardi, 2001; "Prevention and Treatment of HIV and Other Sexually Transmitted Infections Among Men Who Have Sex with Men and Transgender People: Recommendations for a Public Health Approach," 2011; "Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender populations," 2009; "Priority HIV and sexual health interventions in the health sector for men who have sex with men and transgender people in the Asia-Pacific Region," 2010; "Transgender People," 2014). WHO also recommends that sexual health services be delivered within a broader framework, which includes issues related to relationships, self-esteem, body image, sexual behaviors and practices, spirituality, sexual satisfaction, stigma, discrimination, and alcohol and drug use ("Prevention and treatment of HIV and

other sexually transmitted infections among men who have sex with men and transgender populations," 2009). Depending on the setting and the epidemic patterns, sterile injecting equipment and opioid substitution therapy, accompanied by evidence-informed psychosocial and behavioral interventions involving assessment, feedback, and advice, are some strategies to address this concern ("Policy Brief: Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations," 2014). There is evidence that opioid substitution therapy is effective in improving access and adherence to ART, in addition to reducing injecting behaviors and lowering HIV infection risks ("Policy Brief: Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations," 2014). In terms of mental health, it is critical that HIV service providers be able to screen, access, and refer or treat HIV-positive MSM and transgender women for threshold-level mental disorders and subthreshold presentations of common symptoms (Bankoff, et al., 2013; "Expert Consultation on Implementation Science and Operational Research Priorities for Strengthening Access to Care and Treatment Services for MSM Living with HIV," 2014).

Additional Important Considerations for Transgender People

Transgender women who access healthcare and HIV-related care should receive at the minimum a comprehensive care package from a multidisciplinary team, similar to MSM. Due to intersecting vulnerabilities, many transgender women would need help in supportive services (such as housing, transportation, and food) and care for mental health conditions (including depression, post-traumatic stress disorders, and suicide ideation) and intimate partner violence ("Best Practices in HIV Prevention: Translating Innovation into Action," 2014). Supportive services such as housing, job, and food also may take priority before transgender women consider a need for HIV services (J. Sevelius, 2013). Transgender women also have high needs for support and care for psychosocial issues such as gender confusion and community exclusion, as well as to address limited work options and financial hardships ("Priority HIV and sexual health interventions in the health sector for men who have sex with men and transgender people in the Asia-Pacific Region," 2010).

Combining HIV services with other health priorities for transgender women related to transitioning may increase uptake and adherence, while also improving their overall quality of life.

In addition, health conditions and healthcare needs are specifically associated with gender transitioning. Access to resources and care for hormones and surgeries needed for people to change their sex are largely lacking in general healthcare systems ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014; Lombardi, 2001) or these services are not accessible because of financial constraints (Roberts & Fantz, 2014) or because of transgender people's HIV status (Schilder, et al., 2001). In fact, though, these services could be opportunities to perform HIV testing and prevention for transgender women ("Best Practices in HIV Prevention: Translating Innovation into Action," 2014; Schilder, et al., 2001) and may even attract transgender women to HIV services ("Best Practices in HIV Prevention: Translating Innovation into Action," 2014; "HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005). Too often, these services are offered in isolation, separate from the overall healthcare of transgender women (Melendez & Pinto, 2009; Mogasale, et al., 2010). Long-term use of hormone therapy may also be associated with increased risks for cardiovascular, breast, and metabolic diseases ("Priority HIV and sexual health interventions in the health sector for men who have sex with men and transgender people in the Asia-Pacific Region," 2010). Transgender clients need to be fully informed of the risks and offered testing and screening services. Regular assessments of drug interactions should be done to ensure response to the therapy and minimize risks of adverse effects (Roberts & Fantz, 2014). Clients should be provided with sufficient information about transgender health and relevant social services in the community. A comprehensive list of resources and referrals should be available to transgender clients. There is also a need for providers of hormone therapy as well as HIV and overall healthcare to receive additional education on trans-specific healthcare issues and

greater input from transgender individuals in their own care. Within the sexual health framework for transgender people, it is also important to keep in mind that prostate exams are still required for post-operative trans women ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014).

Quality related to the package of services should be considered at the health systems level, with the ability to effectively link clients with services in an efficient way at the organizational and provider levels.

Choice of Methods

Considerably less emphasis was placed in the literature on "choice of methods," to guide quality concepts related to the right package (and packaging) of services, likely due to the availability of broad and evidence-based guidance documents (Organization, 2015; "Policy Brief: Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations," 2014; United Nations Population Fund, 2015). However, a few concepts emerged that should be noted. In one context, condom promotion was associated with sexual orientation, in that condoms could be seen as "…signifiers for sexual orientation and HIV status and therefore stigmatizing in some countries" (S. Arreola, Ayala, G., Banos, O., Beck, J., Keatley, J., Sundararaj, M., 2010). Given the context, it may therefore be prudent to nest condom distribution and other sexual health services within primary healthcare services (S. Arreola, Ayala, G., Banos, O., Beck, J., Keatley, J., Sundararaj, M., 2010). An innovative recommendation suggested that couple counseling for HIV testing among MSM can have a double benefit, both identifying people in need of HIV care and recognizing the validity of these relationships. Testing and support of stable and monogamous partnerships both are important HIV prevention strategies (Beyrer, Sullivan, et al., 2012). Complementary and alternative medicine (CAM) therapies in HIV treatment and adherence programs can also be valuable. At least one study demonstrated that mutual use of CAM and ART was common among MSM in the eastern United States (Bica, et al., 2003); this might be the case elsewhere, as well. Finally, there is great enthusiasm around introducing PrEP technology with other prevention technologies (Ard, 2012; "Policy Brief: Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations," 2014; "Prevention and Treatment of HIV and Other Sexually Transmitted Infections Among Men Who Have Sex with Men and Transgender People: Recommendations for a Public Health Approach," 2011; "Priority HIV and sexual health interventions in the health sector for men who have sex with men and transgender people in the Asia-Pacific Region," 2010; Wilson, 2011), but how to do so is a major question globally and for LMIC settings. In particular, balancing the introduction of PrEP in contexts where the availability of ART for many people living with HIV is low raises both ethical and logistical challenges (S. Arreola, Hebert, P., Makofane, K., Beck, J., Ayala, G., 2012). Also, there is still a need to address gaps in basic prevention services such as access to condoms and lubricants access while at the same time planning the introduction of new prevention strategies (S. Arreola, Hebert, P., Makofane, K., Beck, J., Ayala, G., 2012).

Providing same-sex couple counseling has the dual benefit of promoting HIV prevention and testing while also recognizing the validity of these relationships.

Effectiveness

In terms of interventions demonstrating effectiveness, drug treatment followed by sexual health interventions at the individual and community levels have been shown to be effective in reducing HIV risk behavior ("Prevention and Treatment of HIV and Other Sexually Transmitted Infections Among Men Who Have Sex with Men and Transgender People: Recommendations for a Public Health Approach," 2011). Behavioral interventions showed mixed findings in effectiveness based on the specific approach (Beckerman & Fontana, 2009; Gayner, et al., 2012), and emphasis was placed on the new emerging prevention tool of PrEP as a promising mechanism to reduce sexual risk of acquiring HIV (Krakower & Mayer, 2012; "Prevention and

Treatment of HIV and Other Sexually Transmitted Infections Among Men Who Have Sex with Men and Transgender People: Recommendations for a Public Health Approach," 2011; Wilson, 2011). Integrated services were noted as potentially both more effective and efficient for service delivery ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014; Brooks, Etzel, Hinojos, Henry, & Perez, 2005). Addressing wider community stigma and discrimination was noted as an important precursor to the delivery of effective interventions, particularly because of the influence on accessibility of services (S. Arreola, Ayala, G., Banos, O., Beck, J., Keatley, J., Sundararaj, M., 2010; Brooks, et al., 2005; Erdley, et al., 2014; "Positive Health, Dignity, and Prevention: A Policy Framework," 2011; "Prevention and Treatment of HIV and Other Sexually Transmitted Infections Among Men Who Have Sex with Men and Transgender People: Recommendations for a Public Health Approach," 2011; "Priority HIV and sexual health interventions in the health sector for men who have sex with men and transgender people in the Asia-Pacific Region," 2010). Mechanisms for service delivery that were deemed effective, in part because they help mitigate stigma as a barrier to services, were the use of technology (Allison, et al., 2014) and appropriate messaging channels (Brooks, et al., 2005). In terms of technology, it was noted that, similar to face-to-face communications, two-way communication enabled by technology rather than simple, static informational resources was more effective (Allison, et al., 2014).

Efficiency

The right constellation of services to achieve maximum efficiency and avoid waste may vary by setting, as well as by clients' sociodemographic characteristics, stage of illness, and co-morbidities (Conviser & Pounds, 2002). The capacity to provide the entire recommended package of services may be beyond the scope of one organization (Melendez & Pinto, 2009). This is particularly true given that ancillary and support services for MSM and transgender populations are especially important to promote HIV treatment adherence.

In contexts where MSM and transgender populations are highly stigmatized, it may be more important to have designated "MSM and transgender friendly services," including private providers that are discrete and accessible to the populations (Makofane, 2014). Community-based delivery of services through civil society groups is critical, in addition to public or private services providers. In this case, "one-stop shopping" may be the optimal form of service delivery for the recommended package of services ("Guide for HIV/AIDS Clinical Care," 2014; "HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005). This form of service delivery is also recommended by the WHO and UNAIDS guidance document for implementing services for MSM (United Nations Population Fund, 2015) and transgender people (United Nations Development Programme (UNDP), 2016).

Having multiple services under one roof is particularly important for transgender people who may also be managing hormone therapy in addition to HIV care ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014); (Melendez & Pinto, 2009). Studies have found that transgender women appreciated a holistic approach to healthcare and the opportunity to obtain hormone therapy, HIV, and STI testing and treatment, social services and general checkups in the same clinic (Melendez & Pinto, 2009). Such an installation of services, in addition to onsite psychosocial support, is likely to contribute to increased attendance and adherence to HIV care for transgender women ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014; "Guide for HIV/AIDS Clinical Care," 2014).

However, one-stop shopping also has several potential limitations to consider. First, it may be more appropriate for longer-term HIV services related to treatment and adherence than for HIV testing. To expand the reach of services, HIV testing may be couched within other services also sought by MSM and transgender people through provider-initiated counseling and testing (Melendez & Pinto, 2009). Community-

based outreach is important for HIV testing, but by its very nature is not set up to provide a multitude of ancillary and support services at one time or in one setting. In this case, linkage and referral when additional services are needed are critically important.

In reality, there is no universally optimal package of HIV and support services.

Another important finding from the literature is the diversity in the combinations of services that clients desire. While a clear strength of one-stop shopping is streamlined coordination of services that are easier to access, not all clients want services to be clustered. A recent study conducted among MSM in San Francisco illustrates this point (Koester, et al., 2013). Its authors identified four typologies (behavioral profiles) of how MSM seek care and their care preferences: "fragmenters," who intentionally separate sexual health services from primary care; "single-issue sexual health care" consumers, who enter healthcare only to seek out sexual health services; "opportunistic integrators," who have a regular healthcare provider and would test for HIV or STI based on that provider's recommendation, but who don't seek these services out separately from primary care; and "consolidators," who actively plan to seek all sexual health services within the context of primary care. These four typologies differ in how client intentions and behaviors align. The study concludes that knowing how MSM manage sexual health and HIV services is an important component of "knowing your epidemic," and is equally as important as knowing risk factors for acquiring HIV in order to organize services for these populations effectively.

Integration, Referrals, and Linkages

Integration through referrals and other linkages between service provision actors was one of the strongest recommendations to increase efficiency and achieve an appropriate package of services, including ancillary services (Bankoff, et al., 2013; Dukers-Muijrers, et al., 2012). However, the mechanism for forming these connections was not well described and remains an important gap to address. A heavy emphasis has been placed on referrals and the ability to track referrals across services. An additional way forward is to explore links between service provision beyond the referral of patients—for example, through exchanges based on the sharing of knowledge, resources, and other information across types of organizations. In one study focused on MSM living with HIV, several factors were found to facilitate service integration. These were shared protocols and agendas between the two service programs and the sharing of professional information, among others (Dukers-Muijrers, et al., 2012).

According to the literature, community-based service providers can play a key role in connecting clients to clinical services to reach integration goals for quality service provision (Bankoff, et al., 2013; Hanssmann, Morrison, Russian, Shiu-Thornton, & Bowen, 2010). Efficiency may also be achieved through the integration of clinical services within community-based services. One example from the literature is a community-based program that provides safe spaces for MSM, such as drop-in centers, combined with access to HIV testing and prevention services and linkage to care when necessary (Makofane, 2014). Other community-based programs reported support group discussions and outreach events that could also host HIV testing and other services. CBOs can also consider offering blood tests and mental healthcare in a cost-effective way.

Another mechanism for such integration is through supporting linkages between MSM/transgender-led CBOs and different actors in the health systems. Such linkages would facilitate capacity building of the health systems to ensure that they are friendly and sensitive to MSM and transgender healthcare needs, that cultural competency training is built into the curriculum for health professionals, and that healthcare initiatives are developed collaboratively with the populations they aim to serve ("Guide for HIV/AIDS Clinical Care," 2014; Makofane, 2014). CBOs play a critical role in advocating structural and systematic changes on behalf of

MSM and transgender women, and addressing stigma and discrimination—two major barriers to accessing quality healthcare ("Guide for HIV/AIDS Clinical Care," 2014).

Technical Competence

In this section, we summarize information from the literature we reviewed related to "technical competence": a domain from the Bruce-Jain framework that refers to the correct practice of clinical guidelines and adherence to service provision protocols (Bruce, 1990). This aspect of HIV service provision was usually mentioned in conjunction with the importance of culturally appropriate care, in that providers' competence implies both technical and cultural competence with regard to MSM and transgender populations. We have discussed cultural competence and patient-centeredness above. Aspects of technical competence were mentioned in slightly less than half of all documents reviewed. Many of them was noted that technical competence is an area in need of improvement. Similar to other constructs, the majority of this literature was from the United States and high-income country settings.

According to the literature reviewed, a technically competent provider is one who is aware of the health needs of MSM and transgender women and knows how to address these needs or is able to effectively refer to appropriate specialized services. The emphasis on technical competence was at the provider-level, although several documents also noted the importance of having the right equipment and commodities in place to provide services: for example, private examination areas, anoscopes, reagents, and medical treatment supplies ("Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender populations," 2009; "Priority HIV and sexual health interventions in the health sector for men who have sex with men and transgender people in the Asia-Pacific Region," 2010). Specialized health needs were overwhelmingly noted in relation to STIs above mental health, although this could be a function of the search criteria focusing on HIV services.

Technical competence for STI diagnosis and management, including HIV, was highlighted in the literature. Primary care providers as well as HIV and infectious disease specialists should be equipped to provide appropriate diagnosis and treatment services. In Table A3 of the Appendix, we reference global and other materials that may be used to assess appropriate clinical service provision for MSM and transgender women overall, and specifically related to HIV clinical care. The majority of these resources are either global standards provided by WHO or developed in the United States. The one exception is the MSM training course "MARPS in Africa." Several documents noted that the establishment of national guidelines and national and regional communities of practice is an important way to support correct clinical management that is also context-specific in terms of available treatment regimens ("Guide for HIV/AIDS Clinical Care," 2014; McNair & Hegarty, 2010; Sharpe & Uchendu, 2014). Furthermore, in order for guidelines to be effective, they must be coupled with mechanisms to ensure implementation such as audits, ongoing trainings, required continuing education, and feedback (McNair & Hegarty, 2010; Obedin-Maliver, et al., 2011). General practitioners should also be aware of the health services that they can provide, given that the vast majority of health concerns will be similar for MSM, transgender women, and the general population. They should also be equipped to make referrals for specialized services (Obedin-Maliver, et al., 2011).

As a precursor to providing the correct clinical care, a number of documents noted the importance of taking a correct health and sexual history (Brennan, et al., 2012; Coren, et al., 2011; "Guide for HIV/AIDS Clinical Care," 2014; Krakower & Mayer, 2012; Makadon, 2011; McNair & Hegarty, 2010; Muller, 2013; Obedin-Maliver, et al., 2011; Polly & Nicole, 2011; Sequeira, Chakraborti, & Panunti, 2012). As stated in one document, "Everyone who practices clinical medicine needs to understand whether patients are LGBT and how to engage in conversations about sexual orientation and gender identity" (Makadon, 2011). Failure to properly equip healthcare providers with these skills has led to the "invisibility" or "erasure" of sexual minorities in healthcare, particularly for transgender populations ("HIV/AIDS in the Transgender

Population: A Community Consultation Meeting," 2005; Makadon, 2011; McNair & Hegarty, 2010; Snelgrove, et al., 2012). At a basic level, providers need to understand the difference between sexual orientation and gender identity (Obedin-Maliver, et al., 2011). Additionally, providers should understand that behavior does not always correlate with identity, although it may confer the same health risk (for example, a man who reports sex with other men but who does not identify as homosexual). In this case, providers should respect clients' self-reported identification in relation to sexual orientation, while at the same time addressing the health-related issues specific to the behavior in a clinically appropriate manner (Makadon, 2011). Asking permission to include information about sexual orientation and gender identity in medical documents is respectful and can build rapport with clients. Similarly, using a preamble to sensitive questions, such as "I am going to ask you some questions about your sexual health and sexuality that I ask all my patients," can put clients at ease and demonstrate equity across how gender- and sexual-minority clients are treated similarly to all other patients (Makadon, 2011).

A major problem noted in the literature was the lack of systematic inclusion of training in medical and other health professional schools and credentialing systems related to gender- and sexual- minority health.

Research in the United States documents providers' feeling that they are inadequately equipped to manage care for these clients (A. Daley & MacDonnell, 2015). The proliferation of tools and training materials has advanced significantly in recent years, but this has largely been left to self-directed learning and ancillary, ad-hoc training (Krakower & Mayer, 2012; Lim, Brown, & Justin Kim, 2014; Obedin-Maliver, et al., 2011). Training should be directed to all types of healthcare providers (for example, nurses and social workers), not just physicians (Muller, 2014). This is especially important in contexts where most healthcare is not provided by a physician. Training and demonstration of technical competency should be a mandatory part of gaining healthcare credentials (Ettner, 2013). In addition to traditional classroom exercises, effective learning techniques include simulations, clinical affiliations, and interaction with and treatment of gender- and sexual-minority clients as part of clinical rotations. Partnerships with CBOs that serve these populations can assist traditional clinical programs in integrating this type of training (Lim, et al., 2014).

Important Considerations for Transgender Women

The literature related specifically to transgender persons highlights aspects of clinical care especially important for this group compared to other sexual minority populations ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014; "HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005; J. M. Sevelius, et al., 2014; "Transgender HIV/AIDS Health Services Best Practices Guidelines," 2007). Mostly, these recommendations related to the use of hormones, and how this, along with knowledge of the patient's genetic sex, may influence correct interpretation of blood tests ("HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005; Polly & Nicole, 2011). In some cases, this may not correlate to a biomedical issue, but may also be affected by client desires, wherein focus on gender transitioning supersedes health concerns and attention to HIV prevention or treatment ("HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005). Even in the United States, hormones can be difficult and expensive to obtain, which may lead to buying hormones outside of the health system and using other substances to achieve body modification goals that cause health problems (for example, injection with cooking oil or body oil) ("HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005; "Transgender HIV/AIDS Health Services Best Practices Guidelines," 2007). Common techniques such as tucking and binding may also have health effects, such as defects or hernias in the external inguinal ring and yeast infections of the skin under the breasts ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014). These are

important issues to address to maintain client health and to promote HIV treatment adherence, although they are not specific to the condition of HIV infection.

Several documents reported a need for providers to have the skills to address the mental health needs of gender- and sexual-minority clients (Callahan, et al., 2015; Chakrapani, et al., 2011; Eady, et al., 2011; Krakower & Mayer, 2012; Makadon, 2011; Mayer, et al., 2012; Polly & Nicole, 2011; "Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender populations," 2009; Rounds, et al., 2013; Rutherford, McIntyre, Daley, & Ross, 2012; J. Sevelius, 2013; "Transgender HIV/AIDS Health Services Best Practices Guidelines," 2007): specifically, depression, anxiety, and suicide ("Best Practices in HIV Prevention: Translating Innovation into Action," 2014; "HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005). Notably, documents reporting specific mental health needs were predominantly those focused on transgender rather than MSM health. The few articles that mentioned substance use did so broadly, without specific reference to type of substance ("Guide for HIV/AIDS Clinical Care," 2014; Obedin-Maliver, et al., 2011; "Transgender HIV/AIDS Health Services Best Practices Guidelines," 2007). Few documents mentioned harm reduction strategies ("Prevention and Treatment of HIV and Other Sexually Transmitted Infections Among Men Who Have Sex with Men and Transgender People: Recommendations for a Public Health Approach," 2011; "Priority HIV and sexual health interventions in the health sector for men who have sex with men and transgender people in the Asia-Pacific Region," 2010; "Transgender HIV/AIDS Health Services Best Practices Guidelines," 2007), or other treatment for substance use—a noticeable gap, given the negative influence this may have on HIV treatment adherence.

Confidentiality and Informed Consent

As noted in the introduction, one of the important HIV-specific guidelines for quality of care are the WHO consolidated guidelines for HIV testing services, which outline the "5Cs" for quality HIV testing services: consent, confidentiality, counseling, correct test results, and connection (Organization, 2015). Aspects of the 5Cs overlapped significantly with domains from other frameworks already covered in this review. This includes "connection," which relates to integration of services and referrals, also noted as important in each of the preceding sections. Important aspects of counseling (for example, two-way communication, the opportunity to ask questions, trust, and rapport with clients) were covered in the section on interpersonal relationships between provider and client and information given to the client. Surprisingly, no document noted "correct results" specifically, although the correct provision of clinical information is implicit in the guidelines referring to clinical care ("Guide for HIV/AIDS Clinical Care," 2014; "Policy Brief: Consolidated Guidelines on HIV Prevention, Diagnosis, Treatment and Care for Key Populations," 2014). In this section, we present information from the literature on the remaining two "Cs": confidentiality and consent.

Confidentiality was part of 36 of the articles reviewed. According to these documents, confidentiality of all information that is exchanged between the patient and provider, as well as of the exchange itself, should be protected (Beattie, et al., 2012). Confidentiality should be ensured in a standard and routine manner that can be documented and monitored (Makadon, 2011). Confidentiality should also be conceptualized as "progressive disclosure, where clients understand the laws in a way that helps them know what they do and don't have to reveal about themselves" ("HIV/AIDS in the Transgender Population: A Community Consultation Meeting," 2005). Clients should be informed of their rights related to confidentiality in a language or manner that is respectful, comfortable, and sensitive ("Guide for HIV/AIDS Clinical Care," 2014). Standards for confidentiality of client information are "assuring clients/patients that client data will remain confidential, including information on sexual orientation and gender identity issues, informing clients/patients that they have the right not to disclose personal information, assuring clients/patients that the information they disclose will only be used to ensure that their health needs are appropriately

addressed…and avoiding topics around the presence of others that may include family, partners, and friends" (Callahan, et al., 2015).

Confidentiality is an important aspect of quality. At the same time, there is a need for accurate data about MSM and transgender clients and HIV service utilization to support data-driven decision making. How to balance these two issues is an important question to address to move the field forward.

From the client perspective, fear of breaches of confidentiality is a barrier to seeking HIV services. This fear encompasses the possibility that the provider could be from the same social circle as the client due to similar sexual orientation (Adams, et al., 2008; J. M. Sevelius, et al., 2014). It was noted that technological advances may help protect confidentiality and anonymity, by making it possible to provide services outside clinic or facility settings. However, technology also brings new confidentiality concerns, given that exchanges through online chat and webcam consultations can be recorded, saved, and made accessible to others online if protections are not properly in place (Garrett, Hocking, Chen, Fairley, & Kirkman, 2011). In facility settings, it was noted that the lack of adequate spaces for private HIV counseling services impedes ability to uphold confidentiality in some settings (Chakrapani, et al., 2011; Sevelius, et al., 2014; van der Elst, et al., 2013). Carelessness in handling patient records and files was also noted as problematic (Stutterheim, et al., 2014). Ways to increase confidentiality noted in the literature were the use of standard client de-identifiers (pseudonyms, numbers, and or other names); personnel policies to enforce the privacy of client-identifying information. such that it be kept in locked and contained spaces: training peer advocates on the value and importance of confidentiality: and assuring the confidentiality practices of other organizations before making referrals ("Blueprint for the Provision of Comprehensive Care for Trans Persons and Their Communities in the Caribbean and Other Anglophone Countries," 2014; "Guide for HIV/AIDS Clinical Care," 2014).

Confidentiality often overlapped with other quality constructs: patient-centered and acceptable services and interpersonal relations. For example, both MSM and transgender people report fear of their sexual orientation being exposed if they seek HIV services (Ross, et al., 2015). Accessing services in a hospital or clinic could expose gender- and sexual-minority clients to others who might recognize them, including family members or neighbors (Garrett, et al., 2011). In addition to their gender- and sexual-minority status, they might also be exposed as being HIV-positive (Beattie, et al., 2012; Chakrapani, et al., 2011; Ross, et al., 2015). This was a concern both among older clients, who feared exposure within the community (Sharek, et al., 2014), and youth, who were fearful of their sexuality being made known to their parents (Klitzman & Greenberg, 2002). One mechanism suggested for increasing both confidentiality and patient-centered service delivery is the use of HIV self-tests distributed through vending machines (Young, et al., 2014). This service allows anonymity, convenience, and confidentiality of the test results. However, the validity of the test results is questionable and follow-up results need to be considered (Young, et al., 2014). Telephone and webcam consultations are at the convenience of the client and may afford greater privacy and confidentiality than obtaining care in a traditional clinical setting (Garrett, et al., 2011), although the additional confidentiality concerns for technology noted above should be taken into consideration.

Confidentiality is related to the interpersonal relationship between provider and client, in that trust, respect, and honesty must be communicated for confidentiality to be achieved. Especially for gender- and sexual-minority youth, privacy was discussed relative to professionalism, honesty, respect, sensitivity, and trust that their provider will maintain the privacy of any personal information shared (Ginsburg, et al., 2002). For older gay men, confidentiality was noted as important to create a safe environment for them to reveal their sexual orientation. This requires that confidentiality policies are established and made known to the patients. As noted in the section on information, it should also be made known to the client if their sexual orientation will be included in their medical records (Peate, 2013).

Informed consent was explicitly mentioned in only three documents ("Key Programmes to Reduce Stigma and Discrimination and Increase Access to Justice in National HIV Responses," 2012; "Priority HIV and sexual health interventions in the health sector for men who have sex with men and transgender people in the Asia-Pacific Region," 2010; "Quality of Care for Most at Risk Populations (MARP) Regional Report - Central America," 2013) in addition to WHO consolidated guidelines on HIV testing (Organization, 2015), and there only in relation to the service of HIV testing. Based on these documents, obtaining informed consent means that clients are made aware of the voluntary nature of services and their ability to decline any part of HIV-related services in which they do not want to participate. One of the issues noted about informed consent was the need for more explicit documentation of consent, and systems for monitoring if consent had been obtained appropriately ("Quality of Care for Most at Risk Populations (MARP) Regional Report - Central America," 2013). While noted specifically for HIV testing services, the quality of other services might also be enhanced through the adoption of this practice: for example, informed consent as part of treatment as prevention and in the context of research studies.

ANALYTICAL FRAMEWORK FOR QUALITY OF HIV SERVICES FOR MSM AND TRANSGENDER WOMEN

Below we propose a definition of quality for HIV services and inclusive domains for MSM and transgender women. The definition and domains are based on a systematic literature review guided by seminal frameworks for quality for HIV services and adjacent health fields, and including a health systems perspective. We discuss these domains in general, with specific notes to special considerations for transgender women when appropriate.

Definition of Quality

Quality HIV services for MSM and transgender women are based on scientific evidence of the appropriate package of services. They are delivered in a culturally and technically competent manner, through efficient and effective linkages across a variety of service delivery models (i.e. facility-based, community-based, public, and private) and HIV service types (diagnosis, treatment, and retention and ancillary services supporting these). Quality services are voluntary and confidential. They are delivered in a stigma-free environment, by providers who are equipped to address HIV and other overlapping health problems and concerns of MSM and transgender women, and who understand the culture, values, and social challenges faced by these populations.

Essential Domains of Quality

Domain 1: Culturally Competent

Quality HIV services for MSM and transgender women are culturally competent in their design and delivery. At a basic level, providers of quality HIV services must understand the diversity inherent in sexual orientation, and the difference between sexual orientation and gender identity. Use of the correct and appropriate terminology, including the right pronouns for clients and their partners, should be employed by providers and on intake and other forms. The physical environment of service delivery should be welcoming to persons of differing sexual orientations and gender identities. Engagement of same-sex couples in HIV service provision and sharing of information with the partners in long-term same-sex relationships should be encouraged.

Culturally competent HIV services require the use of appropriate interpersonal communication skills and techniques to engage clients. In engaging with clients, providers must be aware of and effectively address mistrust of healthcare institutions or past negative experiences with service providers. Providers' use of two-way communication, nonjudgmental language, and opportunities to ask questions are some of the ways to build trust and rapport with clients. Clients need to be assured that their identity and information are treated as confidential and that their privacy is protected. Health and sexual histories should be structured so that information necessary to provide appropriate health recommendations and services is obtained without forcing clients into disclosure or asking excessive questions about personal sexual and gender issues.

Culturally competent care should also recognize the diversity within sexual minority populations. MSM and transgender women may present different needs with regard to HIV and support services as a result of their socioeconomic status, racial and ethnic background, age, and geographic location, among other characteristics. Providers should be prepared to address the needs of clients based on other characteristics and vulnerabilities, as well. They should also refrain from treating MSM and transgender women as a homogenous group and making assumptions with regard to sexual practices and sexual orientation. This includes special attention to the role of gender transitioning for transgender clients. The biomedical role of

hormone use and other body modifications on HIV treatment adherence should be addressed. Similarly, the desire for body modification and the health priorities of clients should be considered in the design of HIV services as a potential mechanism for engaging and retaining more transgender clients.

Intersecting vulnerabilities with HIV as a result of sexual minority stigma and stress should be acknowledged and addressed through counseling and service provision and effective linkage to ancillary services through documented referrals. This is particularly important for transgender clients, who may have housing, employment, and other needs as a result of stigma and social isolation.

Finally, services and programs should be tailored to the local context through engagement of MSM and transgender CBOs in the design and delivery of HIV services. A variety of service delivery options should be available to MSM and transgender clients to address needs related to HIV and support services and mitigate the impact of stigma. For example, in high-stigma contexts, outreach services, anonymous online services, and MSM or transgender-friendly services should all be options for clients. MSM and transgender women should be recruited as service providers, and should be consulted to inform the training and credentialing of other service providers.

Domain 2: Technically Competent

At a minimum, technically competent HIV services are selected based on the scientific evidence demonstrating their merit. Providers need to be competent in their clinical skills and in the implementation of guidelines and protocols that are up to date. For key populations, technical competence needs to go beyond this standard, in that services should appropriately address the HIV and other health needs of MSM and transgender women in the given context. This requires providers to have training and experience in diagnosing and treating the health conditions that disproportionately affect MSM and transgender women, and that intersect with HIV vulnerability (for example, mental health and substance use problems). If unable to provide services directly, organizations and providers should know what services are available and how to make and track appropriate referrals.

Providers must give clients correct information in a way that is understandable to them. This information should not be limited to HIV prevention through condom and lubricant use. It should also include information about the natural progression of HIV; ART, and ART-based prevention strategies, including PrEP and TASP; hormone therapy for body modifications; as well as how to navigate the health system overall.

Overlapping with culturally competency is the need for technically competent care, to include appropriate health and sexual history taking so that providers can address the health needs of MSM and transgender clients. Providers need to be equipped with communication skills (verbal and nonverbal) that encourage clients to share information pertaining to their health and sexual histories. Information on specific health-related behaviors, in addition to sexual orientation and gender identity, should be used to guide provider recommendations.

As discussed above, curricula for health professionals are seriously lacking with regard to technical skills in working with key population. National guidelines should be designed to address the HIV and health needs of MSM and transgender women. Such guidelines can serve as technical guides for training curricula for health professionals in college or on-the-job. Recommendations by WHO and UNAIDS for HIV services for MSM and transgender women provide critical foundations for the development of such guidelines.

Domain 3: Stigma-Free

Quality HIV services should be provided in an environment that is welcoming, nonjudgmental, and free from stigma and discrimination. This is true for the general population and particularly important for key populations, who are already vulnerable to stigma due to their sexual orientation and gender identity. Providers and other personnel should receive MSM and transgender women with the same level of respect and acceptance accorded to all other clients. Overlapping with cultural competency, MSM and transgender women should be addressed using appropriate pronouns and terminology. They should also be provided the same level of care in terms of accuracy, technical skill, and access to treatment. At the institutional level, sexual orientation and gender identity should be included in nondiscrimination policies, with appropriate sanctions enforced. Accommodations should be made to create an environment that is inclusive of key population groups.

The personal values of providers should be explicitly explored through trainings and other ongoing education to identify and mitigate overt cases of stigmatizing attitudes, as well as unconscious stereotypes that may inadvertently influence service provision. Engagement of CBOs and MSM and transgender women themselves in service provision is an important way to reduce stigma and discrimination in service provision. At the same time, extra efforts to maintain confidentiality should be enforced when providers may be from the same social circles as clients. Cases of stigma toward MSM and transgender providers themselves should also be addressed, as well as concerns related to "courtesy stigma" that may be brought upon other providers who serve the MSM and transgender populations. Finally, other characteristics that may compound stigma for sexual minorities (for example, the double stigma of HIV and homosexual orientation) should also be monitored and efforts made to prohibit instances of discrimination.

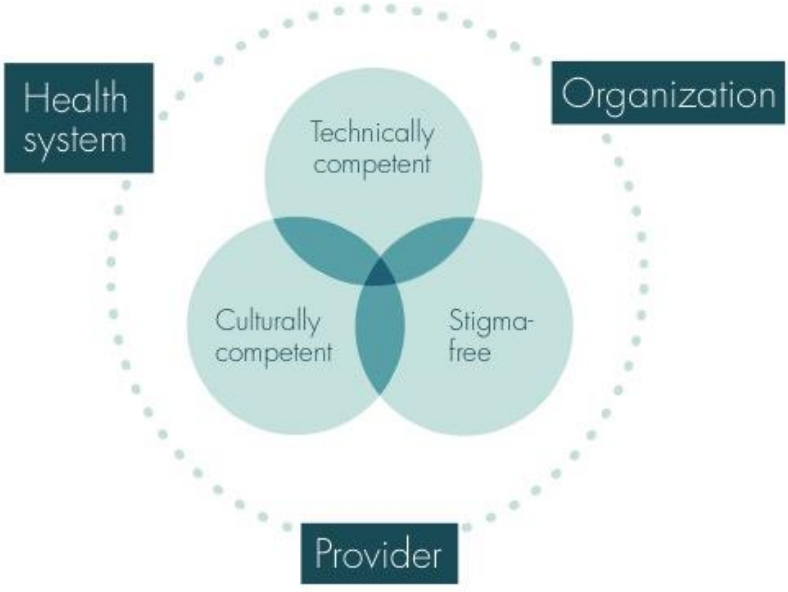
Levels of Quality

Quality of HIV services should be considered and measured at the level of provider, institution, and health system (see Figure 4). The terms in bold refer to some of the aspects of quality that can be measured at each level of service.

Provider

As the direct point of contact, providers and other staff may have the most influence on clients' experience of quality HIV services. However, individual provider characteristics that influence quality HIV services should be considered within the context of the health system and institution that shapes their work. Providers should be equipped with the **cultural and technical competence** necessary to provide quality services to MSM and transgender women. This includes knowledge of diversity in sexual orientation and gender identity (including correct terminology), knowledge of medical problems for which MSM and transgender women are at greater risk and how to treat them, and knowledge of the underlying causes of these problems. They should be able to make appropriate referrals and

Figure 4. Levels and domains of quality of HIV services for MSM and transgender women



follow-up. Providers should be able to provide **stigma-free and nonjudgmental services** and to provide services in a way that builds rapport and trust with clients—capacities requiring skills in **interpersonal communication**. When appropriate, they should possess the skills to be able to include same-sex spouses in information sharing and service provision. Providers should give clients **correct information** about HIV prevention, disease course, treatment, and new technologies (such as PrEP and TASP) in a way that the client population can understand. Providers are also ultimately responsible for clients' provision of **consent** for services and for maintaining the **confidentiality** of client information.

Organization

Many of the same factors noted as necessary to achieve quality HIV services at the health system level are also relevant at the level of institutions or organizations. Of critical importance is an organization's ability either to provide an appropriate **constellation of services** or to make appropriate **linkages** across service delivery type, both within and across the organization. For example, a larger organization that provides both HIV testing and treatment may need to ensure that within the organization, clients are effectively referred from one service to the next as appropriate. They may also refer within the organization for ancillary services, including mental health and substance use services to promote HIV treatment and retention. Alternatively, it may be necessary to refer clients to services outside the organization to meet the health and social needs of clients related to HIV diagnosis, treatment, and retention. Achieving quality HIV services requires that organizations either provide comprehensive services within the organization, or through effective referral and linkage to services. Each organization is responsible for considering logistical and cultural challenges of referrals, for tracking success, and for identifying and mitigating barriers.

Organizations are also responsible for ensuring culturally competent care through the **physical infrastructure** of facilities, **standard operating procedures**, and other **MSM and transgender-friendly policies.** In terms of physical infrastructure, facilities should include single occupancy or gender-neutral restrooms, educational materials that address MSM and transgender women, and mechanisms to prohibit harassment by other clients in common areas. The equipment and resources necessary to address MSM and transgender health needs should be available. In terms of standard operating procedures, organizations should have criteria for taking health and sexual histories appropriate for MSM and transgender women. They should enforce a basic level of provider understanding of MSM and transgender health in their hiring criteria for providers, and provide continuing education and supportive supervision for technical skills related to healthcare needs of MSM and transgender women, including HIV. They should also have mechanisms in place to ensure the **confidentiality** of health information. In terms of policies, organizations should adopt **nondiscrimination policies for sexual and gender minorities**, as well as mechanisms to monitor and enforce appropriate sanctions. Organizations should provide proper intake forms and training of registration and security personnel. They should also adopt policies that are friendly to the spouse and life partners of MSM and transgender women.

Health System

At a broad level, several aspects of the health system must be taken into consideration to attain quality HIV services. Of primary importance are the **linkages** across service delivery models and HIV service types. Service delivery models include services provided by public, private, and community-based organizations through static facilities, in the community setting, and through outreach services. Service types include direct HIV services such as testing, treatment, and retention, as well as ancillary services such as mental health, substance use, social support, and legal services. To achieve quality, CBOs serving MSM and transgender women should play a prominent role in providing services to and linking clients to clinical services. Quality services require an infrastructure at the health system level that facilitates linkages and referrals for clients. To achieve quality HIV services, the responsibility for a successful referral is on the health system, as well as on

organizations and providers within the system and the client. The ability to monitor referrals and linkages across service delivery organizations and service types should also exist at the health system level. Similarly, it is important to develop and support health information systems that accurately capture patient information, and that facilitate availability of patient information over time and across providers to reach quality standards. Quality measures should also be promoted as part of the data captured in tracking the HIV services delivered to MSM and transgender populations.

Realization of quality HIV services requires **variety of service delivery models** for services to be effectively and efficiently delivered. For some clients, one-stop shopping is the optimal form of service delivery. This may take the form of HIV services nested within primary healthcare services, or HIV services that link clients to other healthcare needs. Especially for transgender clients, comprehensive services in one location and from one provider may assist in integrating aspects of gender transitioning that are important to couples with HIV services. For some MSM and transgender women, stand-alone HIV services may be preferred. For others, MSM- and transgender-friendly providers are desired in public or private settings. As a complement to these services, interaction with clients through technology may also be appropriate to make HIV diagnosis, treatment, and retention more effective and efficient. The degree of variety needed to achieve quality HIV services will depend on the context, including the level of stigma and discrimination toward sexual minorities and local preferences. This should be informed by formative research in each context.

Engagement of MSM and transgender populations as partners in the design of HIV service delivery, including how to establish **linkages** and the optimal form of **service delivery models,** will help achieve quality HIV services at the health system level. Recruitment and training of MSM and transgender women as HIV service providers should be promoted at the health system level, including through professional organizations. MSM and transgender advocacy groups should also be consulted to inform the appropriateness of HIV service design and to increase understanding of MSM and transgender cultures, values, and health needs. Furthermore, the health system should consider providing special **credentials** of HIV service providers, general practitioners, and ancillary healthcare providers who achieve appropriate skills for provision of healthcare services for MSM and transgender women. **National guidelines** for taking health and sexual histories of MSM and transgender women and providing appropriate health services should also be established. **Nondiscrimination policies** for clients of different sexual orientations and gender identities should also be adopted at the health system level, to include sanctions for organizations and providers who do not abide by nationally established regulations.

DISCUSSION AND NEXT STEPS

In this report, we synthesized peer-reviewed and gray literature on the quality of HIV services for MSM and transgender women: 137 policy documents, guidance manuals, tools, reports, and scientific studies from around the world. Based on these documents, we propose a definition and framework for conceptualizing quality that has three domains: cultural competency, technical competency, and services that are stigma-free. We further suggest how these domains should be operationalized at the provider, organizational, and health systems level.

The definition and domains for quality overlap seamlessly with the recommendations made in the MSMIT and TRANSIT tools that illustrate best practices for implementing the WHO guidelines for recommended HIV services for MSM and transgender women (UNFPA, et al. 2015; UNDP, et al. 2016). At the same time, this study brings forward several new findings drawn from the cohesive and structured review of this literature, and from the application of seminal quality frameworks in the coding and analysis of the included documents. These are as follows:

- There is a need for additional information from LMICs, given that 66 percent of the available literature was exclusively from North America, Europe, and Australia. There is also a gap in documentation related to quality outside facility-based service delivery, and from the client perspective. It is also notable that only 15 percent of the documents available focused exclusively on transgender women.
- In terms of cultural competency, it is critical to better understand the shared values, beliefs, and customs of MSM and transgender women in each context. This understanding needs to go beyond the shared experience of stigma and discrimination and requires formative work by programs serving these groups.
- Cultural competency requires provider skills in interpersonal communication appropriate for MSM and transgender women. One needs to know not only the correct information to communicate but also the best manner for doing so with individual clients.
- Diversity within MSM and transgender populations should be acknowledged and addressed, including differences in socioeconomic status, religion, politics, and geography. It is especially important to address the different needs of younger and older MSM and transgender women.
- The overriding theme of documents was on the problem of stigma and discrimination, with much less attention devoted to technical service provision. While it is clear that stigma and discrimination must be mitigated for key populations, this is not by itself an adequate benchmark to assess service quality. In our proposed framework, stigma and discrimination are only one of three equally important domains.
- More emphasis needs to be placed on technical competence when operationalizing and evaluating quality. Technical competence requires appropriate health and sexual history taking. This should be done in a way that elicits enough information for providers to make appropriate recommendations, without forcing a client into disclosure and free of the influence of provider curiosity. In the Appendix, we list resources to guide this kind of history taking; the MSMIT and TRANSIT tools offer these resources, too.
- It is imperative to structure and evaluate quality at levels beyond individual service providers and clients. We must consider the organizations and health system in which providers and clients interact. Credentialing systems should be put in place and health issues for MSM and transgender women

should be included in medical curricula. Similarly, nondiscrimination policies that include gender and sexual minorities should be adopted nationally and within healthcare organizations.

- There is no one appropriate model for service delivery. Individual MSM and transgender women differ in expressed preferences for "one-stop shopping," stand-alone HIV services, private versus public services, etc. Therefore, one needs to be flexible in assessing quality at the health system level. For example, it is important to consider the specific context and examine the availability of a variety of service delivery models and the degree to which different service providers are linked to one another.
- Throughout each domain, and at each level, the inclusion of MSM and transgender women as providers, advocates, and key informants in the design and evaluation of services is critical. As noted in both the MSMIT and TRANSIT tools, our findings in this review support the empowerment and involvement of these groups in HIV services.

Defining quality and quality domains is a necessary precursor to setting quality goals, assessing quality, and improving quality. We anticipate that the quality definition and proposed domains will coincide with information familiar to people working in the field of HIV focused on MSM and transgender women. What we propose may be intuitive to advocates serving these groups, given that it is derived from information developed by researchers, policymakers, and program implementers who contributed to the literature in this field. We encourage the use of this definition and three domains as civil society groups, healthcare providers, and funding agencies consider the design and structure of HIV services. Project proposals should include an assessment of the steps taken at the provider and organizational level to support service provision that is culturally competent, technically competent, and stigma free. Similarly, monitoring and evaluation of programs should track indicators within each domain as causal factors that influence project outcomes related to HIV service use uptake and retention across the clinical cascade.

A major strength of this document is that we present a simple and easy-to-understand framework that is based on an extensive document review. The framework can easily be adapted and used by a wide variety of audiences and implementing agencies. It is built from evidence from multiple sources and different types of documents from different geographical regions and covers different types and venues for HIV services. The definition and domains are applicable in many different contexts, yet there is room for adaptation of each domain to a specific context. The framework shows a balance between provider and client perspectives in defining quality, which has not often been done in the field.

That said, the "one size fits all" approach of the framework may not be specific enough to different types of settings (for example, generalized versus concentrated epidemics) and service providers. First, each of the three domains is quite broad, and it may be necessary to break them down further into subdomains as the findings are applied to measure development. Some domains may be more important than others depending on the setting, characteristics of the epidemic, and type and venue of services. Second, the fact that the majority of the documents reviewed came from the developed world is a weakness. There may be a concern that Western standards of care are being recommended to developing countries. For this reason, it is likely necessary to adapt the content and emphasis within each domain locally. Third, because we included access and stigma as key search terms and analyzed them as part of the quality construct, our framework does not clearly distinguish between access and quality of HIV services among key populations. At the same time, the degree to which these two constructs are intertwined makes this a valid approach for this particular type of service and populations. Fourth, this review only includes documents published between 2000 and March 2015, as well as the MSMIT and TRANSIT tools. More recent publications may have been excluded. This is one reason why there was limited discussion of quality in relation to PrEP. This is an important area for future work. Fifth and finally, sustainability of care is not explicitly addressed as part of the domains but may be important to HIV service provision for key populations. From the perspective of clinical services,

sustainability can be thought of as "continuity of services" to ensure long-term care and treatment, and continuous prevention. From the perspective of an HIV-related program, sustainability may refer to something different and may not be directly related to service quality, although equally important.

To move the findings of this study into action, measures are needed that relate to each domain of quality and at each level. These measures will need to be succinct yet rich in their ability to capture the nuances we have outlined within each dimension. It is also important to emphasize the triangulation of quality measures across the provider, organization, and health system levels. With this goal in view, a supplementary document outlining all current measures of quality from this review is being developed.

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APPENDIX

Table A1. Search terms used in the systematic search

Quality Attributes	Service Type	Key Population
Quality	HIV	Bisexual
Acceptable	Health services	Homosexual
Access	Health care	MSM
Competent	Healthcare	YMSM
Stigma	HIV service	Men who have sex with men
Judgment	HIV treatment	Gay men
Barrier	HIV testing	Same sex
Prejudice	Provider	Sexual minority
Sensitivity	Worker	Transgender
Equitable		Transsexual
Respectful		

Table A2. Detailed characteristics of documents included in the literature review

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Abell, N.; Rutledge, S.E.; McCann, T.J.; Padmore, J; 2007	MSM only	Facility-based	Provider	Research study	Yes
Adams, J.; McCreanor, T.; Braun, V.; 2008	MSM only	Facility-based	Both	Research study	No
Aggleton, P.; Chase, E.; Rivers, K.; 2004	Both	Multiple	Provider	Commentary/guidance document	No
Allison, S.M.; Adams, D.; Klindera, K.C.; Poteat, T.; Wolf, R.C.; 2014	Both	Multiple	Both	Commentary/guidance document	No
Araújo, M.A.; Montagner, M.A.; da Silva, R.M.; Lopes, F.L.; de Freitas, M.M.; 2009	MSM only	Facility-based	Client	Research study	No
Ard, K.; Makadon, H.; 2012	Both	Facility-based	Provider	Commentary/guidance document	No
Arreola, S., Ayala, G.; Banos, O.; Beck, J.; Keatley, J.; Sudararaj, M.; 2010	Both	Multiple	Client	Commentary/guidance document	No
Arreola, S.; Herbert, P.; Makofane, K.; Beck, J. Ayala, G.; 2012	MSM only	Multiple	Both	Commentary/guidance document	No
Ayala, G.; Do, T.l Semugoma, P.; Sundararaj, M.; 2011	MSM only	Facility-based	Provider	Commentary/guidance document	No

*Sexual orientation and gender identity

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Beattie, T.S.; Bhattacharjee, P.; Suresh, M.; Isac, S.; Ramesh, B.M.; Moses, S.; 2012	Both	Community or outreach based	Client	Research study	No
Beckerman, A.; Fontana, L.; 2009	MSM only	Community or outreach based	Both	Research study	Yes
Beyrer, C.; Baral, S.; Kerrigan, D.; El-Bassel, N.; Bekker, L.G.; Celentano, D.D.; 2011	MSM only	Multiple	Both	Commentary/guidance document	No
Beyrer, C.; Sullivan, P.S.; Sanchez, J.; Dowdy, D.; Altman, D.; Trapence, G.; Collins, C.; Katabira, E.; Kazatchkine, M.; Sidibé, M.; Mayer, K.H.; 2012	MSM only	Multiple	Not applicable	Commentary/guidance document	No
Bica, I.; Tang, A.M.; Skinner, S.; Spiegelman, D.; Knox, T.; Gorbach, S.; Wilson, I.B.; 2003	Both	Facility-based	Client	Research study	Yes
Binson, D.; Woods, B.; Ekstrand, M.; Freedman, B.; Galvez, S.; 2002	MSM only	Multiple	Provider	Research study	No
Bottonari, K.A.; Stepleman, L.M.; 2009	Both	Facility-based	Both	Research study	Yes
Brennan, A.M.; Barnsteiner, J.; Siantz, M.L.; Cotter, V.T.; Everett, J.; 2012	Both	Facility-based	Provider	Commentary/guidance document	No
Brooks, R.A.; Etzel, M.A.; Hinojos, E.; Henry, C.L.; Perez, M.; 2005	MSM only	Multiple	Provider	Research study	No

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Brotman, S.; Ryan, B.; Jalbert, Y.; Rowe, B.; 2002	Both	Facility-based	Client	Commentary/g	No
Burnes, T.; Singh, A.; Harper, A.; Pickering, D.; Moundas, S.; Scotfield, T.; Maxon, W.; Harper, B.; Roan, A.; Hosea, J.; 2009	Trans only	Community or outreach based	Provider	Commentary/guidance document	No
Cahill. S; Singal, R.; Grasso, C.; King, D.; Mayer, K.; Baker, K.; Makadon, H.; 2014	Both	Facility-based	Client	Research study	Yes
Calabrese, S.K.; Earnshaw, V.A.; Underhill, K.; Hansen, N.B.; Dovidio, J.F.; 2014	MSM only	Facility-based	Provider	Research study	Yes
Callahan, E.J.; Sitkin, N.; Ton, H.; Eidson-Ton, W.S.; Weckstein, J.; Latimore, D.; 2015	Both	Facility-based	Provider	Commentary/guidance document	No
Chakrapani, V.; Newman, P.A.; Shunmugam, M.; Dubrow, R.; 2011	Both	Multiple	Client	Research study	No

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Conviser, R.; Pounds, M.B.; 2002	MSM only	Multiple	Both	Research study	No
Coren, J.S.; Coren, C.M.; Pagliaro, S.N.; Weiss, L.B.; 2011	Both	Facility-based	Provider	Commentary/guidance document	No
Cruz, T.M.; 2014	Trans only	Facility-based	Client	Commentary/guidance document	No
Dabrera, G.; Johnson, S.A.; Bailey, A.C.; Cassell, J.A.; 2013	MSM only	Facility-based	Both	Research study	Yes
Daley, A.E.; Macdonnell, J.A.; 2011	Both	Multiple	Not applicable	Research study	No
Daley, A.; MacDonnell, J.A.; 2015	Both	Home-based	Provider	Research study	No
Dibble, S.L.; Eliason, M.J.; Christiansen, M.A.; 2007	MSM only	Facility-based	Both	Commentary/guidance document	No
Dijkstra, M.; van der Elst, E.M.; Micheni, M.; Gichuru, E.; Musyoki, H.; Duby, Z.; Lange, J.M.; Graham, S.M.; Sanders, E.J.; 2015	MSM only	Multiple	Provider	Commentary/guidance document	No

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Dukers-Muijrers, N.H.; Somers, C.; Hoebe, C.J.; Lowe, S.H.; Niekamp, A.M.; Oude Lashof, A.; Bruggerman, C.A.; Vrijhoef, H.J.; 2012	MSM only	Facility-based	Client	Research study	No
Eady. A.; Dobinson, C.; Ross, L.E.; 2011	MSM only	Facility-based	Client	Research study	Yes
Erdbeer, G.; Sabranski, M.; Sonntag, I.; Stoehr, A.; Horst, H.A.; Plettenberg, A.; Schewe, K.; Unger, S.; Stellbrink, H-J.; Fenske, S.; Hoffmann, C.; 2014	Both	Facility-based	Not applicable	Research study	No
Erdley, S.D.; Anklam, D.D.; Reardon, C.C.; 2014	Both	Multiple	Not applicable	Commentary/guidance document	No
Ettner, R.; 2013	Trans only	Facility-based	Not applicable	Commentary/guidance document	No
Fairfield, K.M.; Libman, H.; Davis, R.B.; Eisenberg, D.M.; Beckett, A.; Philips, R.S.; 2001	Both	Facility-based	Not applicable	Research study	No
Foglia, M.B.; Frederiksen-Goldsen, K.I.; 2014	Both	Facility-based	Not applicable	Commentary/guidance document	No
The Foundation for AIDS Research (amfAR); 2008	MSM only	Multiple	Not applicable	Commentary/guidance document	Yes

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Garrett, C.C.; Hocking, J.; Chen, M.Y.; Fairley, C.K.; Kirkman, M.; 2011	MSM only	Multiple	Client	Research study	Yes
Gayner, B.; Esplen, M.J.; DeRoche, P.; Wong, J.; Bishop, S.; Kavanagh, L.; Butler, K.l.; 2012	MSM only	Multiple	Client	Research study	No
Gee, R.; 2006	MSM only	Multiple	Not applicable	Commentary/guidance document	No
Ginsburg, K.R.; Winn, R.J.; Rudy, B.J.; Crawford, J.; Zhao, H.; Schwarz, D.F.; 2002	MSM only	Facility-based	Client	Research study	Yes
The Global Network of People Living with HIV; 2011	Not applicable	Multiple	Provider	Commentary/guidance document	No
Gonser, P.A.; 2000	MSM only	Multiple	Not applicable	Commentary/guidance document	No
Grov, C.; Restar, A.; Gussmann, P.; Schlemmer, K.; Rodriguez-Diaz, C.E.; 2014	MSM only	Multiple	Provider	Research study	No
Hanssmann, C.; Morrison, D.; Russian, E.; Shiu-Thornton, S.; Bowen, D.; 2010	Trans only	Multiple	Provider	Research study	Yes

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Hoffman, N.D.; Freeman, K.; Swann, S.; 2009	Both	Multiple	Client	Research study	Yes
Jackson, N.C.; Johnson, M.J.; Roberts, R.; 2008	Both	Facility-based	Client	Research study	No
Jin, H.; Earnshaw, V.A.; Wickersham, J.A.; Kamarulzaman, A.; Desai, M.M.; John, J.; Altice, F.L.; 2014	MSM only	Facility-based	Provider	Research study	No
PAHO & John Snow, Inc; 2014	Trans only	Multiple	Not applicable	Commentary/guidance document	No
Johnson, C.V.; Mimiaga, M.J.; Bradford, J.; 2008	Both	Multiple	Not applicable	Commentary/guidance document	No
Joint United Nations Programme on HIV/AIDS (UNAIDS); 2012	Both	Multiple	Provider	Commentary/guidance document	No
Joint United Nations Programme on HIV/AIDS (UNAIDS); 2014b	MSM only	Multiple	Provider	Commentary/guidance document	No
Joint United Nations Programme on HIV/AIDS (UNAIDS); 2014d	Trans only	Multiple	Not applicable	Commentary/guidance document	No
Keiswetter, S.; Brotenmarkle, B.; 2010	Trans only	Facility-based	Provider	Commentary/guidance document	No
Klitzman, R.L.; Greenberg, J.D.; 2002	MSM only	Facility-based	Client	Research study	No
Klotzbaugh, R.; Spencer, G.; 2014	MSM only	Facility-based	Provider	Research study	No

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Knight, R.; Shoveller, J.A.; Oliffe, J.L.; Gilbert, M.; Goldenberg, S.; 2013	MSM only	Facility-based	Both	Research study	No
Koester, K.A.; Collins, S.P.; Fuller, S.M.; Galindo, G.R.; Gibson, S.; Steward, W.T.; 2013	MSM only	Facility-based	Client	Research study	No
Krakower, D.; Mayer, K.H.; 2012	Not applicable	Facility-based	Provider	Commentary/guidance document	No
Lane, T.; Mogale, T.; Struthers, H.; McIntyre, J.; Kegeles, S.M.; 2008	MSM only	Facility-based	Client	Research study	No
Lawlor, A.; Braunack-Mayer, A.; 2004	Both	Community or outreach-based	Provider	Research study	No
Lim, F.A.; Brown, D.V.,Jr.; Jones, H.; 2013	Both	Facility-based	Provider	Commentary/guidance document	No
Lim, F.A.; Brown, D.V., Jr.; Justin Kim, S.M.; 2014	Both	Facility-based	Provider	Commentary/guidance document	No
Lombardi, E.; 2001	Trans only	Multiple	Provider	Commentary/guidance document	No
Makadon, H.J.; 2011	Both	Facility-based	Provider	Commentary/guidance document	No
Makofane, K.; Beck, J.; Ayala, G.; 2014	MSM only	Multiple	Client	Commentary/guidance document	Yes
Mansh, M.; Garcia, G.; Lunn, M.R.; 2015	Both	Facility-based	Provider	Commentary/guidance document	No

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
McNair, R.P.; Hegarty, K.; 2010	MSM only	Facility-based	Provider	Research study	No
Melendez, R.M.; Pinto, R.M.; 2009	Trans only	Community or outreach-based	Client	Research study	No
Merryfeather, L.; Bruce, A.; 2014	Trans only	Facility-based	Both	Commentary/guidance document	No
Mogasale, V.; Wi, T.C.; Das, A.; Kane, S.; Singh, A.K.; George, B.; Steen, R.; 2010	Both	Multiple	Provider	Research study	Yes
Müller, A.; 2013	Both	Facility-based	Provider	Research study	Yes
Müller, A.; 2014	Both	Facility-based	Provider	Commentary/guidance document	No
Natale, A.P.; Moxley, D.P.; 2009	MSM only	Community or outreach-based	Provider	Commentary/guidance document	No
National LGBT Health Education Center; 2014	Both	Multiple	Provider	Commentary/guidance document	Yes
National LGBT Health Education Center; 2015	Both	Facility-based	Provider	Commentary/guidance document	No
National LGBT Health Education Center; 2013	Trans only	Facility-based	Provider	Commentary/guidance document	No
Obedin-Maliver, J.; Glodsmith, E.S.; Stewart, L.; White, W.; Tran, E.; Brenman, S.; Wells, M.; Fetterman, D.M.; Garcia, G.; Lunn, M.R.; 2011	Both	Facility-based	Provider	Research study	Yes

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
O'Byrne, P.; Macpherson, P.; Roy, M.; Kitson, C.; 2014	MSM only	Multiple	Provider	Research study	No
Pangaea Global AIDS Foundation; 2014	MSM only	Multiple	Provider	Commentary/guidance document	No
Peate, I.; 2013	MSM only	Facility-based	Provider	Commentary/guidance document	No
Philips, J.C.; Patsdaughter, C.A.; 2010	Trans only	Facility-based	Provider	Commentary/guidance document	No
Polly, R.; Nicole, J.; 2011	Trans only	Facility-based	Provider	Commentary/guidance document	No
Remien, R.H.; Hirky, A.E.; Johnson, M.O.; Weinhardt, L.S.; Whittier, D.; Le, G.M.; 2003	MSM only	Multiple	Client	Commentary/guidance document	Yes
Reygan, F.C.; D'Alton, P.; 2013	Both	Facility-based	Not applicable	Research study	No
Roberts, T.K.; Fantz, C.R.; 2014	Trans only	Facility-based	Not applicable	Commentary/guidance document	No
Rogers, S.J.; Tureski, K.; Cushnie, A.; Brown, A.; Bailey, A.l Palmer, Q.; 2014	Both	Facility-based	Provider	Research study	Yes
Ross, M.W.; Nyoni, J.; Larsson, M.; Mbwambo, J.l Agardh, A.; Kashiha, J.; McCurdy, S.A.; 2015	MSM only	Multiple	Client	Commentary/guidance document	No
Rounds, K.E.; McGrath, B.B.; Walsh, E.; 2013	Both	Multiple	Client	Research study	No

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Rutledge, S.E.; Abell, N.; Padmore, J.; McCann, T.J.; 2009	Both	Facility	Both	Research study	No
Safren, S.A.; O'Cleirigh, C.; Skeer, M.R.; Driskell, J.; Goshe, B.M.; Covahey, C.; Mayer, K.H.; 2011	MSM only	Facility-based	Client	Research study	Yes
Saleh, L.D.; Operario, D.; Smith, C.D.; Arnold, E.; Kegeles, S.; 2011	MSM only	Multiple	Both	Research study	No
Schilder, A.J.; Kennedy, C.; Goldstone, I.L.; Ogden, R.D.; Hogg, R.S.; O'Shaughnessy, M.V.; 2001	Both	Multiple	Client	Research study	Yes
Schneider, J.; Kaplan, S.H.; Greenfield, S.; Li, W.; Wilson, I.B.; 2004	Both	Facility-based	Provider	Research study	Yes
Sequeira, G.M.; Chakraborti, C.; Panunti, B.A.; 2012	Both	Facility-based	Provider	Research study	Yes
Sevelius, J.M.; Patouhas, E.; Keatley, J.G.; Johnson, M.O.; 2014	Trans only	Facility-based	Client	Research study	No
Sevelius, J.; 2013	Trans only	Multiple	Not applicable	Commentary/guidance document	No
Sharek, D.B.l McCann, E.; Sheerin, F.; Glacken, M.; Higgins, A.; 2014	Both	Facility-based	Client	Research study	No

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Snelgrove, J.W.; Jasudavisius, A.M.; Rowe, B.W.; Head, E.M.; Bauer, G.R.; 2012	Trans only	Facility-based	Provider	Research study	No
Stover, C.M.; Hare, P.; Johnson, M.; 2014	Both	Community or outreach based	Client	Research study	No
Strong, K.L.; Folse, V.N.; 2015	Both	Facility	Provider	Research study	Yes
Stutterheim, S.E.; Sicking, L.; Brands, R.; Baas, I.; Roberts, H.; van Brakel, W.H.; Lechner, L.; Kok, G.; Bos, A.E.; 2014	MSM only	Facility-based	Both	Research study	Yes
Taegtmeyer, M.; Davies, A.; Mwangome, M.; van der Elst, E.M.; Graham, S.M.; Price, M.A.; Sanders, E.J.; 2013	MSM only	Facility-based	Provider	Research study	No
Traeger, L.; O'Cleirigh, C.; Skeer, M.R.; Mayer, K.H.; Safren, S.A.; 2012	MSM only	Facility-based	Client	Research study	Yes
Transgender Health Services Working Group; 2007	Trans only	Facility-based	Both	Commentary/guidance document	Yes
Transgender Health Services Working Group; 2009	Trans only	Multiple	Provider	Commentary/guidance document	No
USAID; 2013	Both	Multiple	Not applicable	Commentary/guidance document	Yes
U.S. Department of Health and Human Services; Health Resources and Services Administration HIV/AIDS Bureau; 2014	Both	Facility-based	Provider	Commentary/guidance document	Yes

Author, Year	SOGI*	Venue	Perspective	Document type	Quality measures
	MSM, trans, or both	Facility, community, or both	Provider or client	Research study, commentary /guidance document	Includes a tool or other resource for measuring quality
Willging, C.E.; Salvador, M.; Kano, M.; 2006	Both	Multiple	Both	Research study	No
Wilson, I.B.; Kaplan, S.; 2000	Both	Facility-based	Both	Research study	Yes
Wilson, P.; Santos, G.; Herbert, P.; Ayala, G.; 2011	MSM only	Multiple	Not applicable	Commentary/guidance document	Yes
Wirtz, A.L.; Kamba, D.; Jumbe, V.; Trapence, G.; Gubin, R.; Umar, E.; Stromdahl, S.K.; Beyrer, C.; Baral, S.D.; 2014	MSM only	Multiple	Both	Research study	No
Wolf, R.C. ; Cheng, A.S.; Kapesa, L.; Castor, D.; 2013	MSM only	Multiple	Not applicable	Commentary/guidance document	No
WHO; 2008	Both	Multiple	Not applicable	Commentary/guidance document	Yes
WHO; 2009	Both	Multiple	Not applicable	Commentary/guidance document	Yes
WHO; 2011	Both	Multiple	Not applicable	Commentary/guidance document	Yes
WHO; 2014	Both	Multiple	Not applicable	Commentary/guidance document	No
Young, S.D.; Daniels, J.; Chiu, C.J.; Bolan, R.K.; Flynn, R.P.; Kwok, J; Klausner, J.D.; 2014	MSM only	Community or outreach based	Client	Research study	No
Zablotska, I.; Frankland, A.; Imrie, J.; Adam, P.; Westacott, R.; Canavan, P.; Prestage, G.; 2009	MSM only	Community or outreach based	Client	Research study	Yes

Table A3. Resources for clinical guidelines

Organization	Resource	URL
The Gay and Lesbian Medical Association	Quality of Healthcare for Lesbian, Gay, Bisexual & Transgender People Webinar Series	http://www.glma.org
The American Medical Association Advisory Committee on Lesbian, Gay, Bisexual and Transgender Issues	Links to multiple journal articles, training guides, and examples of nondiscrimination statements	http://www.ama-assn.org/ama/pub/about-ama/our-people/member-groups-sections/glbt-advisory-committee.page
The Desmond Tutu HIV Foundation*	MSM: An Introductory Guide for Health Workers in Africa	http://www.safaids.net/files/MSM_Introductory%20guide%20for%20health%20workers%20in%20Africa.pdf
Most at Risk Populations in Africa*	MSM online training course	http://www.marps-africa.org/
The U.S. Centers for Disease Control and Prevention	A Guide to Taking a Sexual History	http://stacks.cdc.gov/view/cdc/12303/
The Fenway Institute	The Fenway Guide to Lesbian, Gay, Bisexual, and Transgender Health, 2nd edition	http://www.lgbthealtheducation.org/publications/top/
The Nursing Center	Online book: LGBTQ Cultures: What Health Care Professionals Need to Know About Sexual and Gender Diversity	http://www.nursingcenter.com/clinical-resources/lgbtq
The World Professional Association for Transgender Health (WPATH)	Numerous publications and online training courses for providing clinical care to transgender persons	http://www.wpath.org/
Vancouver Coastal Health	Online trainings about transgender health needs and other guidance documents	http://transhealth.vch.ca/
The Endocrine Society	Recordings of session from the Endocrine Society 2013 annual meeting. "Transgender Medicine: What Every Physician Should Know"	http://www.endosessions.org/s/2013an/endo/S53
The Gay Men's Health Crisis (GMHC)	Links to a number of web resources and publications	http://www.gmhc.org/hiv-info/more-resources#med-treat
Health 4 Men	Links to online resources, including "ask an expert" online forum	http://www.health4men.co.za/

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