Men and HIV: evidence-based approaches and interventions

A framework for person-centred health services

World Health Organization

UNAIDS

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Abbreviations and Acronyms

ANC	antenatal care
ABYM	adolescent boys and young men
ART	antiretroviral therapy
ARV	antiretroviral
COPD	chronic obstructive pulmonary disease
CVD	cardiovascular disease
DSD	differentiated service delivery
HCW	health care worker
HIVST	HIV self-testing
HTS	HIV testing services
LMICs	low- and middle-income countries
MMD	multimonth dispensing
NCD	noncommunicable disease
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PrEP	pre-exposure prophylaxis
STI	sexually transmitted infection
TB	tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
VMMC	voluntary medical male circumcision
WHO	World Health Organization

Executive summary

Men experience increased risk of morbidity and mortality across all ten major contributors to poor health *(1–3)* and continue to lag behind women regarding HIV services and other health outcomes. Globally, men now account for the majority of new HIV infections *(4, 5)*. In 2022, only 72% of men living with HIV (aged 15 years or older) had access to antiretroviral (ARV) therapy (ART) compared to 82% of women living with HIV in the same age range *(6)*.

Most evidence on how to engage generalized male populations in HIV services is from eastern and southern Africa. HIV cascade data in 2022 show that adolescent boys and men aged 15 years and older in the subregion are less likely than women to know their HIV status (91% for men vs 94% for women), initiate ART once identified as living with HIV (78% for men vs 86% for women), and reach viral suppression (73% for men vs 81% for women) *(7)*. Men are up to twice as likely to have advanced HIV disease compared to women *(8)*.

Improving coverage of HIV services for men is critical for population health and HIV epidemic control including through increased, consistent coverage of ART and durable viral suppression *(9–14)*. Recent models show that improving men's HIV testing and treatment coverage could reduce HIV incidence among women by half *(15)*.

Opportunistic infections and other infections that increase risk of HIV infection and/or poor HIV-related outcomes show similar sex differences. Sexually transmitted infections (STIs) such as gonorrhoea and trichomoniasis, viral hepatitis and HIV/tuberculosis (TB) co-infection are among the most pressing health concerns where men are underrepresented in health services and must be addressed alongside HIV *(16, 17, 18, 19)*.

This document provides a simplified and consolidated framework to increase men's engagement in health systems across HIV and related health services, using a person-centred care approach. We intentionally include HIV-related services (including safer sexual practices, STIs, viral hepatitis and HIV/TB co-infection) given the burden of disease among men living with HIV, and the increased risk of infection, morbidity and mortality. Additionally, this document compiles and includes a list of World Health Organization (WHO) evidence-based recommendations for men.

Sexual and reproductive health services have historically not been developed with men in mind, often leaving men on the sidelines of key HIV and related health services. Men, like all people, need health services that are responsive and align with person-centred care which re-orients health services to put people and communities at the centre of service delivery strategies *(20)*. Men need services that are **easy to access**, are **delivered with quality** and are positive experiences, and offer **supportive services** that are responsive to men's unique needs and enable sustained uptake of health services *(21, 22)*.

This framework summarizes barriers to health services experienced by men and overarching strategies to address barriers and improve health service outcomes for men across three core pillars of person-centred care – access to care, quality services and supportive services. Person-centred care is good for everyone and should be implemented universally. Throughout this document we highlight key strategies from person-centered care that work for men, although they may work for others as well. Fig. 1. provides a summary of overarching strategies. In this document, we use the term men to include adolescent boys and men aged 15 years and above.

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Fig. 1: Summary of overarching strategies along three core pillars to address them (see the more comprehensive table in Table 1)

Access

1. **Routine entry points**, including offering screening and testing and other reproductive and sexual health services when men routinely engage with health systems, such as during outpatient and emergency department visits (frequented by men) and during partner's pregnancy.
2. **Community-centred services** that offer services at diverse community-based venues, such as work and faith-based organizations.
3. **Flexible facility-based services** that offer differentiated services, such as multimonth dispensing (MMD), and rapid refills.

Quality

1. **Positive interactions with health care workers (HCWs)** promoted through HCW sensitization to men's needs, HCW training and job aids on how to best interact with men as clients, and male-friendly spaces.
2. **Integrated services** that maximise time men already spend at health facilities can facilitate holistic care and ensure confidentiality and anonymity.

Support

1. **Comprehensive counselling and facility navigation** that address men's unique needs, interests and life goals.
2. **Peer services** that provide ongoing support and ongoing relationships to men, who often have limited male social support.
3. **Virtual interventions** that can maintain connections and provide ongoing support for men, regardless of their physical location.

Men's health matters. Increasing evidence shows that men care about their health and want to use health services, but how health systems are organized and the services offered often limit men's routine contact and access to HIV and related services *(23)*. Health systems can and should address many male-specific barriers to care by providing person-centred services specific to men's needs. It is time health systems become a place for all populations, including for men.

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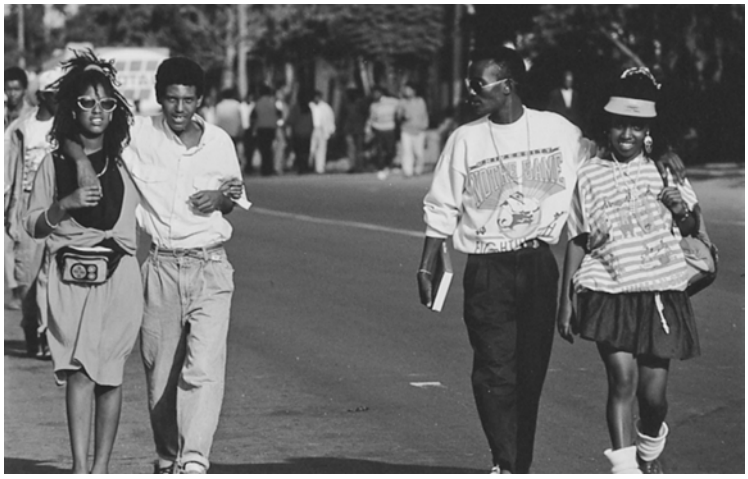

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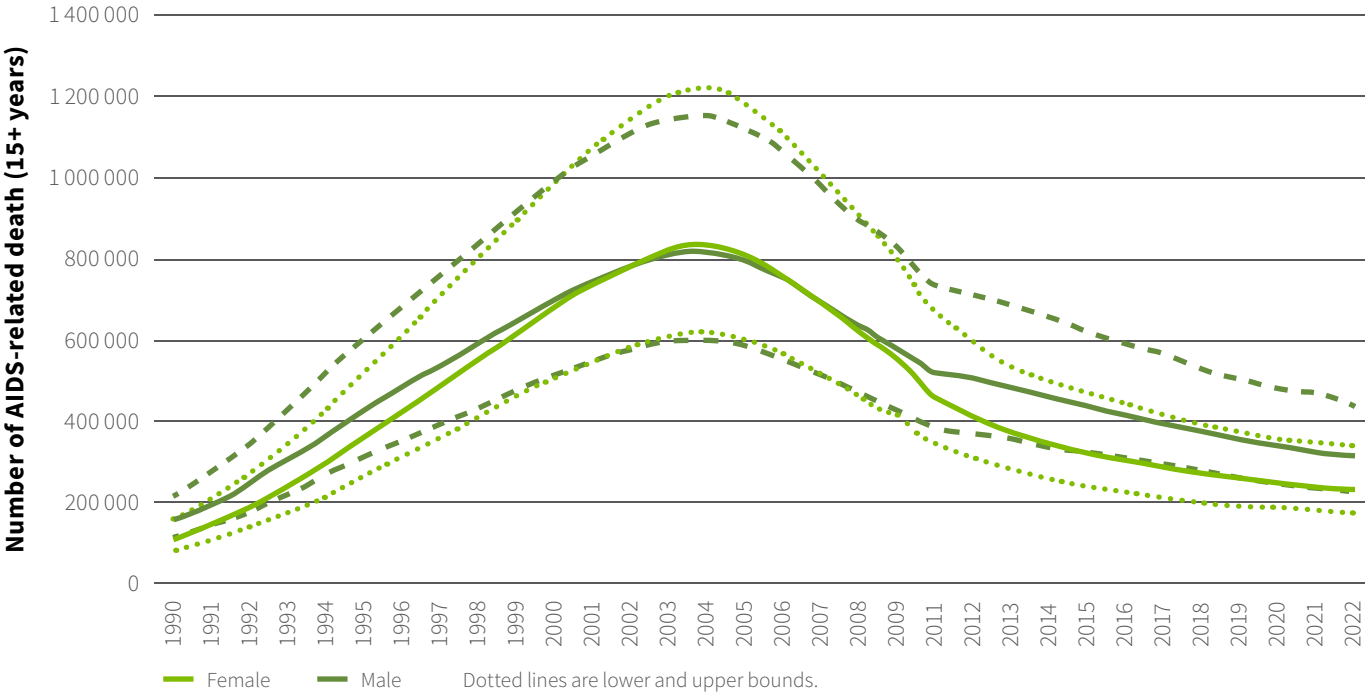
Introduction

Background and rationale

Men have shorter life expectancies than women *(1)*, with increased risk of morbidity and mortality across all ten major contributors to poor health *(2, 3)*. Globally, life expectancy for men is 5 years lower compared to women, with little change in sex differences from 2000–2019 *(24)*. One area with persistent sex differences is access to HIV services and treatment outcomes. Globally, men now account for the majority of new HIV infections *(4, 7)*. Adolescent boys and men aged 15 years and above, accounted for 53% of total new HIV infections among adults in 2022. Outside of sub-Saharan Africa, men and boys accounted for approximately 70% of new HIV infections. In sub-Saharan Africa, HIV cascade data show that men are less likely than women to know their HIV status (89% for men vs 93% for women), initiate treatment (78% for men vs 86% for women) and reach viral suppression (73% for men vs 80% for women) *(5, 7)*. Global efforts to reach women with HIV services has led to rapid declines in deaths among women living with HIV as compared to men – in 2022, AIDS-related mortality had declined by 55% among women and girls and by 47% among men and boys since 2010 (see Fig. 2).

Fig. 2: AIDS-related deaths among people aged 15+ years, by sex *(7, 25)*



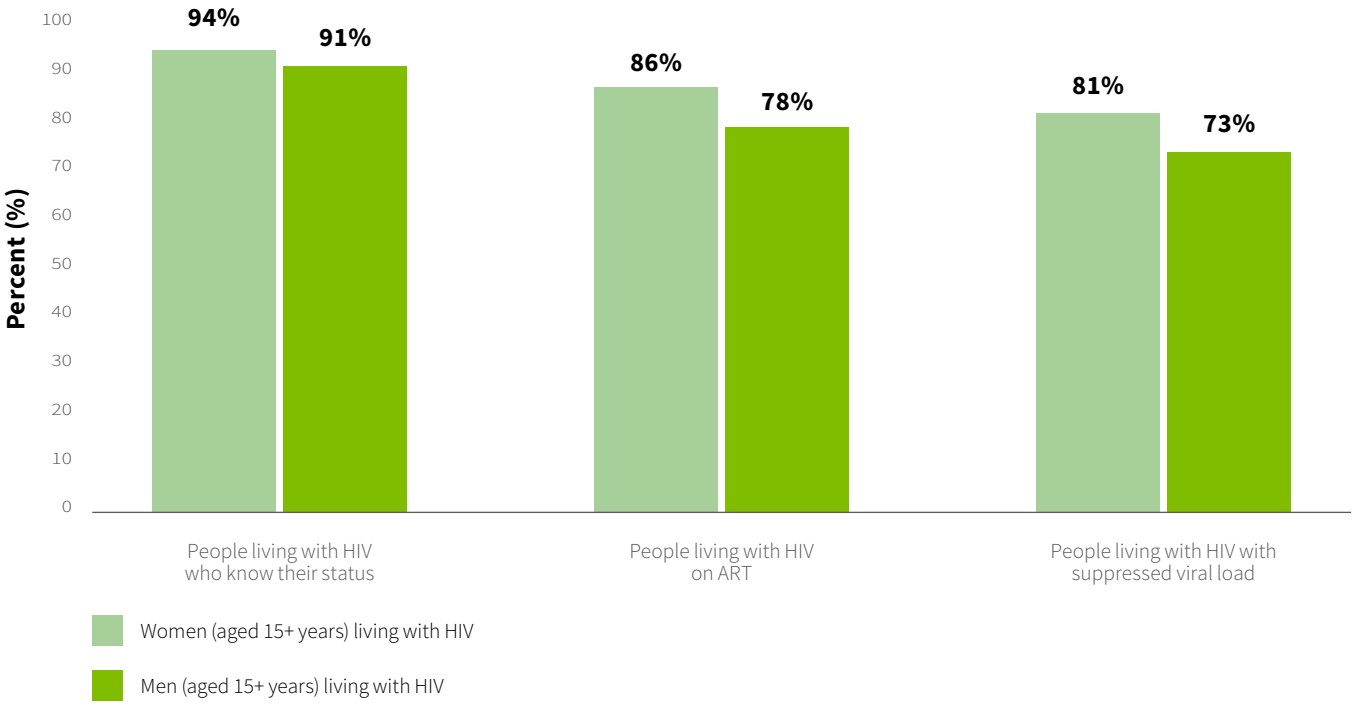
Source: UNAIDS epidemiological estimates, 2023

In 2022, approximately 76% of women living with HIV globally have achieved viral suppression, compared to only 67% of men living with HIV

Sex differences in HIV-related outcomes are largely due to suboptimal coverage of HIV testing and treatment among men. In 2022, only 72% of men living with HIV (aged 15 years or older) had access to ART compared to 82% of women living with HIV in the same age range *(6)*. Globally, there remain extensive gaps when comparing women's engagement with men's use of health services spanning HIV testing, treatment initiation, and durable treatment engagement necessary for viral suppression. While there is geographic diversity in how men and women engage in HIV services, generalized epidemics show persistent gaps in HIV services for men. The biggest gap in viral suppression is seen in the Caribbean, sub-Saharan Africa, and Eastern Europe and central Asia. Yet there is still relatively little known about how to best design and deliver HIV services for general male populations in these regions.

The majority of evidence on how to engage generalized male populations in HIV services is from eastern and southern Africa. In 2022, approximately 20.8 million individuals living with HIV were living in eastern or southern Africa, representing 54% of all people living with HIV *(6)*. Sex differences in the region are compounded by lack of infrastructure, health system constraints and poverty. Men in the region are less likely than women to know their HIV status (91% for men vs 94% for women), initiate ART once identified as living with HIV (78% for men vs 86% for women) and reach viral suppression (73% for men vs 81% for women) *(7)* (see Fig. 3). Men are at increased risk of treatment interruption, repeat treatment interruptions and long durations out of care, as compared to women *(7, 26)*. In population surveys, men have been found to be twice as likely to have advanced HIV disease compared to women *(8)*. Advanced HIV disease contributes to onward transmission, risk of opportunistic infections and high mortality among men *(27)*.

Fig. 3: HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), eastern and southern Africa, 2022. *(7)*



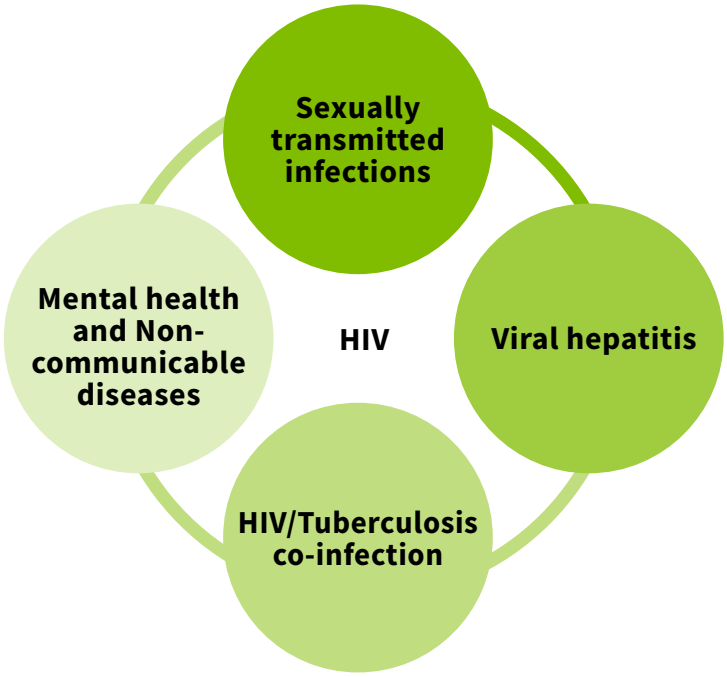
Source: UNAIDS epidemiological estimates, 2023

Improving coverage of HIV services for men is critical for population health and HIV epidemic control. Unsuppressed HIV also increases risk of onward HIV transmission. One of the best strategies for prevention is consistent use of ART and durable viral suppression (namely, treatment-as-prevention *(9–14)*. Improving HIV service coverage for men is one of the best ways to improve HIV outcomes for young women and adolescent girls *(28)*. Approximately 290 000 women, 15 years and above, in eastern and southern Africa were newly infected with HIV during 2022 compared to approximately 150 000 men *(7)*. Young women and adolescent girls' increased risk of HIV infection is largely worsened by the suboptimal treatment coverage among men living with HIV *(15)*. Recent studies show that improving men's HIV testing and treatment coverage would significantly reduce HIV incidence among women, namely, by half *(15)*.

Improving HIV service coverage for men is one of the best ways to improve HIV outcomes for young women and adolescent girls.

Opportunistic infections and other infections that increase risk of HIV infection and/or poor HIV-related outcomes show similar differences by sex. Other STIs, mental health and non-communicable diseases, viral hepatitis and HIV/TB co-infection are some of the most pressing health concerns that must be addressed alongside HIV (see Fig.4). The presence of STIs increase risk for HIV acquisition *(16)* and individuals living with HIV with unsuppressed viral loads are at increased risk of STIs and TB with increased morbidity and severity *(17)*. Men have higher incidences of gonorrhoea (56% for men vs 44% for women), trichomoniasis (53% for men vs 47% for women) and hepatitis C (54% for men vs 46% for women *(18)*. In low- and middle-income countries (LMICs), TB prevalence among men is over twice as high as among women. TB case notification rates are also higher for men, and the ratio of prevalent-to-notified cases of TB – an indication of how long patients take to be diagnosed on average – was 1.5 times higher among men than women, suggesting that men are less likely than women to achieve a timely diagnosis *(19)*. TB is the leading cause of death among people living with HIV *(29)*. Men living with HIV are nearly twice as likely to die from TB as women *(30, 31)*. Prevention programmes targeting men, such as safer sexual practices and voluntary medical male circumcision (VMMC) have had mixed impact, with suboptimal results in many contexts. Only one of the 15 priority countries for VMMC have reached the 90% coverage target, and 6 of the 15 countries have not improved coverage in recent years *(23)*. Strategies to reach men with HIV services should also optimize coverage across related health services wherever possible, given the similar epidemiological trends across service outcomes, and the fact that health systems' infrastructure is much stronger for HIV services as compared to services for STI, viral hepatitis and HIV/TB co-infection.

Fig. 4: HIV and related health needs for men



Strategies to reach men with HIV services should also optimize coverage across related health services wherever possible.

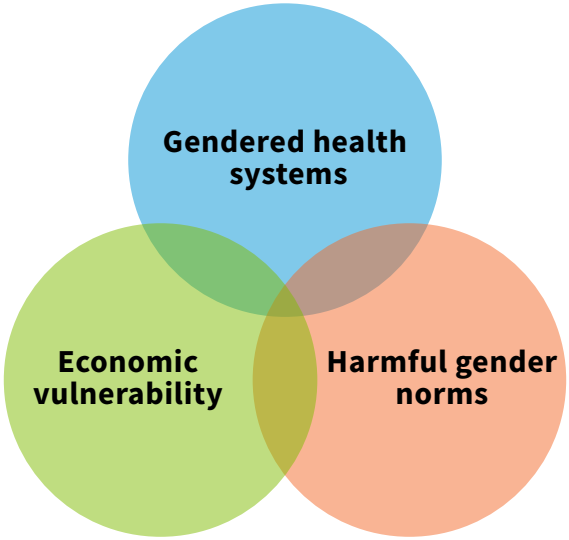
Reaching men in all their diversity

Men have diverse experiences and identities, with specific but diverse health needs. It is important that we recognize and reach men in all their diversity, paying particular attention to vulnerable groups of men, including male members of key populations. Often people have multiple intersecting identities, some that are criminalized or face extensive discrimination *(32, 33)*. With sex work as an exception, men comprise the vast majority of key populations, including people in prisons and other closed settings (>90%), people who inject drugs (70–90% male) *(32)* and gay men and other men who have sex with men who experience some of the highest risk of HIV infection *(33)*. Such men are faced with intersecting vulnerabilities and barriers to care. Categories of key populations are fluid, with men in the general populations often moving across and between key population categories. For example, men who identify as heterosexual can also have sex with men, and in some contexts men frequently move in and out of incarceration. An age- and population-differentiated approach should be used, focusing on the groups of men and boys with the highest HIV incidence and prevalence according to each country's latest epidemiological data. Specific guidance and more information on evidence-based approaches for reaching male key populations can be found in *WHO Consolidated guidelines on HIV, viral hepatitis and STI prevention, diagnosis, treatment and care for key populations (33)*.

Barriers to HIV and related services for men

Men, like women, experience numerous barriers to access HIV and related services. Barriers that have unique impacts on men's use of services are captured within a combination of three domains: 1) gendered health systems that do not target men; 2) economic vulnerabilities that make men choose between making money and accessing health services; and 3) harmful gender norms that may discourage men from seeking services and lead to negative interactions with health care workers (see Fig. 5) *(34-46)*.

Fig. 5: Contributing factors to men's health outcomes



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Health systems do not adequately serve men's needs as clients. In many countries, health-service delivery platforms (antenatal, maternal, paediatric, sexual and reproductive services) are often designed primarily for use by women and/or children. In many settings, few, if any, health-service delivery channels have been developed specifically with men in mind. This has led to the common belief that clinics are not meant for men and deterring men from accessing health services *(34)*. Within health guidelines, programming and research strategies, men are largely not targeted for health services *(35–36)*. In contrast, gender norms embedded within health systems expect women to be main caretaker of the family. Women are often targeted for reproductive health and child services – as a result women spend six times as long seeking health services as compared to men *(37)*. Because health services are not designed for men, men lack routine service entry points for HIV and other services, face rigid service hours that conflict with work schedules and often must seek services in physical spaces that are primarily occupied by women *(38–42)*.

Economic vulnerability, whereby families are unable to meet basic living needs, and social vulnerabilities are experienced by everyone, including both men and women. Men and women can experience income and class-related disparities that make it difficult to successfully access care and meet basic living needs *(43)*. Forty percent of individuals in sub-Saharan Africa live in extreme poverty (<US$ 1.90 per day), with very little progress made in reducing poverty in the region over the past two decades *(44)*. The absolute number of individuals living in absolute poverty in sub-Saharan Africa is increasing *(44)*. Poverty, unpredictable and unstable or informal-sector employment, and job scarcity all amplify systems-related barriers to care. They limit men's ability to access time-consuming health services as men must spend extended periods of time searching for (or performing) income-generation activities *(38, 45, 46)*.

HIV programmes have historically been tailored around women and children's health and have unintentionally left men behind without understanding or meeting men's needs.

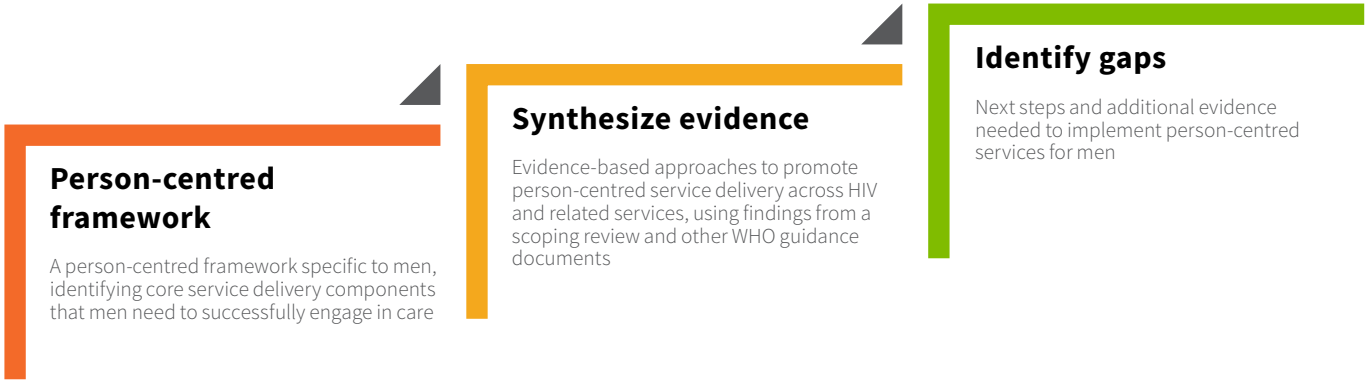
Gender norms can perpetuate rigid, harmful expectations of what men should do and who they should be *(47)*. Harmful gender norms are perpetuated within social systems (such as education systems, health systems and entertainment and marketing industries) and are embedded within communities and individuals. Harmful gender norms, which assume that men should be strong, self-reliant and avoid health services while providing for the needs of their households, negatively affect both men and women *(48)*. These perceptions can act as a barrier to men's use of health services *(34)* if men believe that using services will result in loss of dignity and/or reputation in the community, or loss of ability to have new sexual partners *(49–52)*. Likewise, gender norms also impact how health systems and health care providers interact with men as clients, and can lead to de-prioritizing men's health services and not recognizing the unique vulnerabilities and barriers men face when accessing services *(34, 53)*. Health systems embody and perpetuate harmful gender norms when they do not provide services or health literacy campaigns that target men, and when they simultaneously expect and require women to bear the burden of being the 'caregiver' of the family, attending frequent health visits for women and children's health *(54)*. This reinforces the notion that men do not need health services, affirms perceptions of clinical settings as "female spaces", and where the need to attend numerous health service visits each year translates to substantial time commitments that impede other activities such as education and other forms of paid or unpaid labor *(37)*.

Objectives

We aim to provide a simplified and consolidated resource to increase men's engagement across HIV and related health services, using a person-centred care approach. We intentionally include HIV-related services (including safer sexual practices, STIs, viral hepatitis and HIV/TB co-infection), given the burden of disease among men living with HIV, and the increased risk of infection, morbidity and mortality posed. This framework outlines a person-centred care framework specific to men, synthesizes evidence-based interventions to promote person-centred care and prevention services across HIV and other related services, and identifies next steps and additional evidence needed to implement person-centred services for men (see Fig. 6).

The document draws evidence largely from southern and eastern Africa as that is where the vast majority of evidence has been generated, but guidance is likely applicable to diverse geographic settings across the globe.

Fig. 6: Overarching objectives of the WHO *Men's Framework for action*



The *Men's framework for action* does not supersede but rather complements existing WHO guidance and briefs, such as specific guidance for VMMC *(55, 56)* and taking pre-exposure prophylaxis (PrEP) *(57, 58)*; HIV testing and linkage *(59, 60)*; differentiated service delivery (DSD) models *(61)*; community and structural interventions for HIV services *(25)*; TB screening *(62)*; STI services *(63)*; viral hepatitis services; virtual innovations (including phone- and internet-based interventions) *(64)*; and an overarching, holistic men's framework for HIV in eastern and southern Africa *(25)* and key populations (including male key populations) *(33)*. Annex 1 summarizes existing guidelines on services for HIV, STIs and TB.

The *Men's framework for action* is the first consolidated document providing guidance on how to reach all men across the HIV service cascade and other key services. We include specific case examples to highlight practical examples across all pillars of this framework.

Target audience

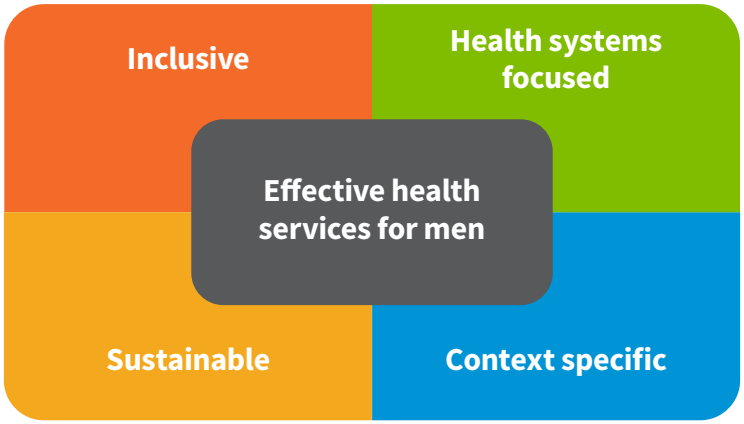
The *Men's framework for action* is primarily intended for use by HIV programme managers. Evidence is drawn from sub-Saharan Africa because the vast majority of evidence is from this region, but it is likely to apply across a diverse range of geographic locations. It will also be of interest to the following audiences:

- managers of health programmes related to HIV;
- clinicians and other health service providers;
- world of work actors: governments, employers and trade unions
- people living with HIV and community-based organizations;
- international and bilateral agencies and organizations that provide financial and technical support to HIV and/or sexual health programmes; and
- researchers generating evidence around sexual health, HIV and TB services.

Guiding principles

The *Men's framework of action* builds on several overarching principles (see Fig. 7).

Fig. 7: Overarching principles for Men's Framework



Inclusive approaches that reach all men are needed

Men should be offered accessible, quality services, regardless of their background or risk factors. Suboptimal health outcomes for men have been established for over a decade *(2, 26, 37, 65, 66)*. We are committed to identifying overarching strategies that can improve access and use of services for men in all their diversity, including general male populations, who have been historically de-prioritized by HIV efforts *(53, 67)*, and key populations.

Health systems are central to improving health outcomes for men

Health systems must offer services in ways that minimize – rather than increase – barriers to care for men. New evidence (see Fig. 11) shows that men do seek health services for themselves and other family members, but that health services often do not meet their needs. Men generally are not well served by sexual and reproductive health services, which tend to focus mainly on women's reproductive health. Men in key populations face particular challenges in accessing HIV prevention services, including discrimination, harassment and denial of health services *(33)*.

We focus on service delivery strategies for men that can be implemented within a health system's framework. A health system's focus shifts responsibility for health service utilization to systems instead of individual men *(68)*. We acknowledge that community gender norms and economic systems should simultaneously be addressed, but this lies outside the scope of this guidance.

Sustainability and scalability are key

A sustainable approach and a health systems perspective are key. Services that are vertical and narrow do not serve men well. Rather, an integrated, country-owned approach is important. In addition, the use of existing structures and systems is needed. This framework uses a public health approach to understand service delivery strategies and interventions that are promising from a sustainability and scalability perspective.

Context matters

All strategies and approaches for reaching men should be informed by local context, including local epidemiology, engagement and active feedback from local communities, review and assessment of current efforts to engage men, and the organization and capacity of the health system.

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Person-centred care framework

Methodology

Recommendations for men are informed by existing literature on specific barriers and challenges to service utilization experienced by men, and by existing WHO guidelines, guidance and technical briefs on interventions to address above barriers and challenges. In addition, the recommendations are informed by a recent scoping review conducted to understand the latest evidence for interventions that improve men's use of HIV and related health services.

The scoping review addressed the question: "What service delivery interventions work to enhance the uptake of services for HIV and related conditions by adolescent boys and men aged 15 years and above in sub-Saharan Africa, both within and across the included technical areas?" The scoping review examined peer-reviewed manuscripts that met the following eligibility criteria:

- conducted after 2007 and published prior to 31 December 2022;
- an intervention study (report outcomes for at least one nonstandard service delivery strategy) with a comparison group;
- included service utilization data on HIV or related health services (namely, safer sex, PrEP, STI testing and treatment, viral hepatitis services, and TB testing and treatment among those living with HIV (co-infected);
- reported findings for the general male population (not solely key populations) and had a sample of at least 30 men;
- participants were from sub-Saharan Africa (using the United Nations subregions of Africa) *(69)*; and
- had a manuscript or abstract available in English.

We identified 15,595 intervention articles. We removed 4,406 duplicates, reviewed 11,187 titles, and 245 data sources qualified for full review. Under full review we excluded 174 data sources (Fig 1): not focused on men's health (n=15), data not disaggregated by sex (n=87), non-intervention study (n=36), no comparison group (n=25), not in sub-Saharan Africa (n=7) and only included key populations (n=4). A total of 71 articles were included in the review *(70)*.

We use a person-centred care framework to map evidence on interventions for men from the scoping review and existing WHO documents. We categorized interventions into five intervention types: facility-based services, community-based services, community outreach, counselling and/or peer support, mHealth, and incentives. We summarized interventions, key components, and key limitations across service domains *(70)*. Data were then entered directly into a structured data-charting form, categorized by the three domains within the person-centred care framework. Details of the methodology, including PRISMA flowchart for the scoping review can be found elsewhere *(70)*.

Evidence-based interventions for men

HIV testing services (HTS) remain a critical entry point to reach men with HIV and to provide men with other health services. The WHO policy brief on *Improving men's uptake of HIV testing and linkage to services* highlights WHO-recommended approaches (Fig. 8) that country programmes, implementing partners and other stakeholders can adapt, implement and scale up to increase HIV testing, including the operational considerations relevant for reaching men.

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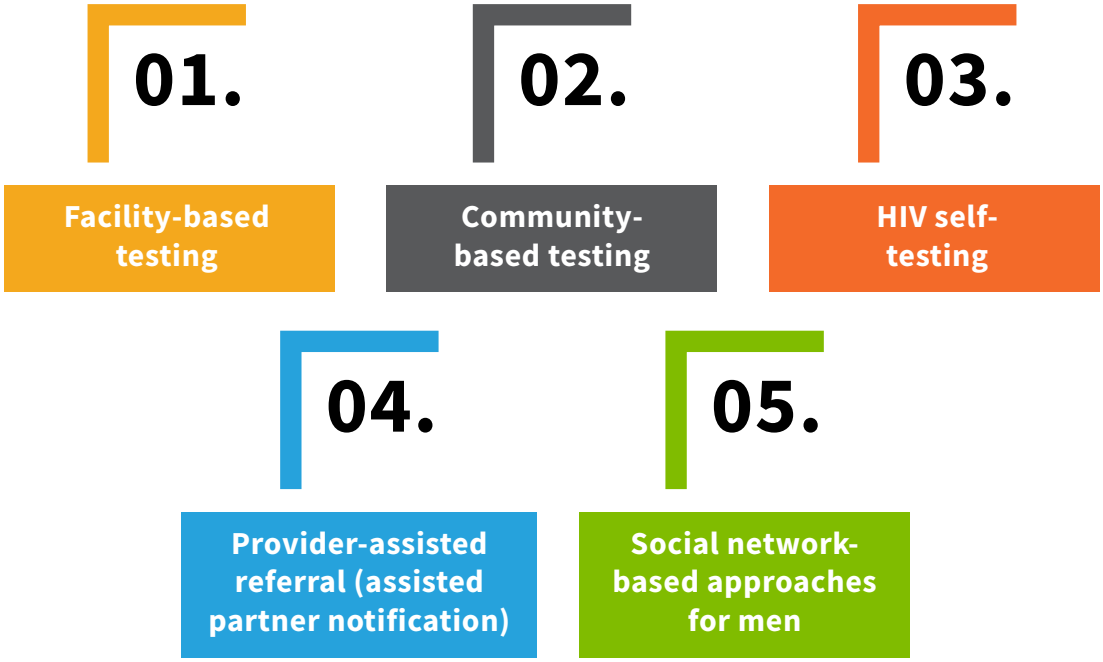
Fig. 8: WHO-recommended approaches for improving men's uptake of HTS



Reaching men and then linking them to appropriate evidence-based interventions for prevention and treatment services is essential for meeting national and global goals.

WHO has developed numerous guidelines that are relevant to reaching men across the cascade. These guidelines contain evidence-based interventions aimed at men, which countries should use, based on their context and the priority populations they aim to reach. Annex 1 includes a package of evidence-based recommendations available for men from WHO guidelines on services across the HIV cascade, STIs, TB/HIV, hepatitis, and other broader health services.

Person-centred framework

The document is organized around a person-centred care framework.

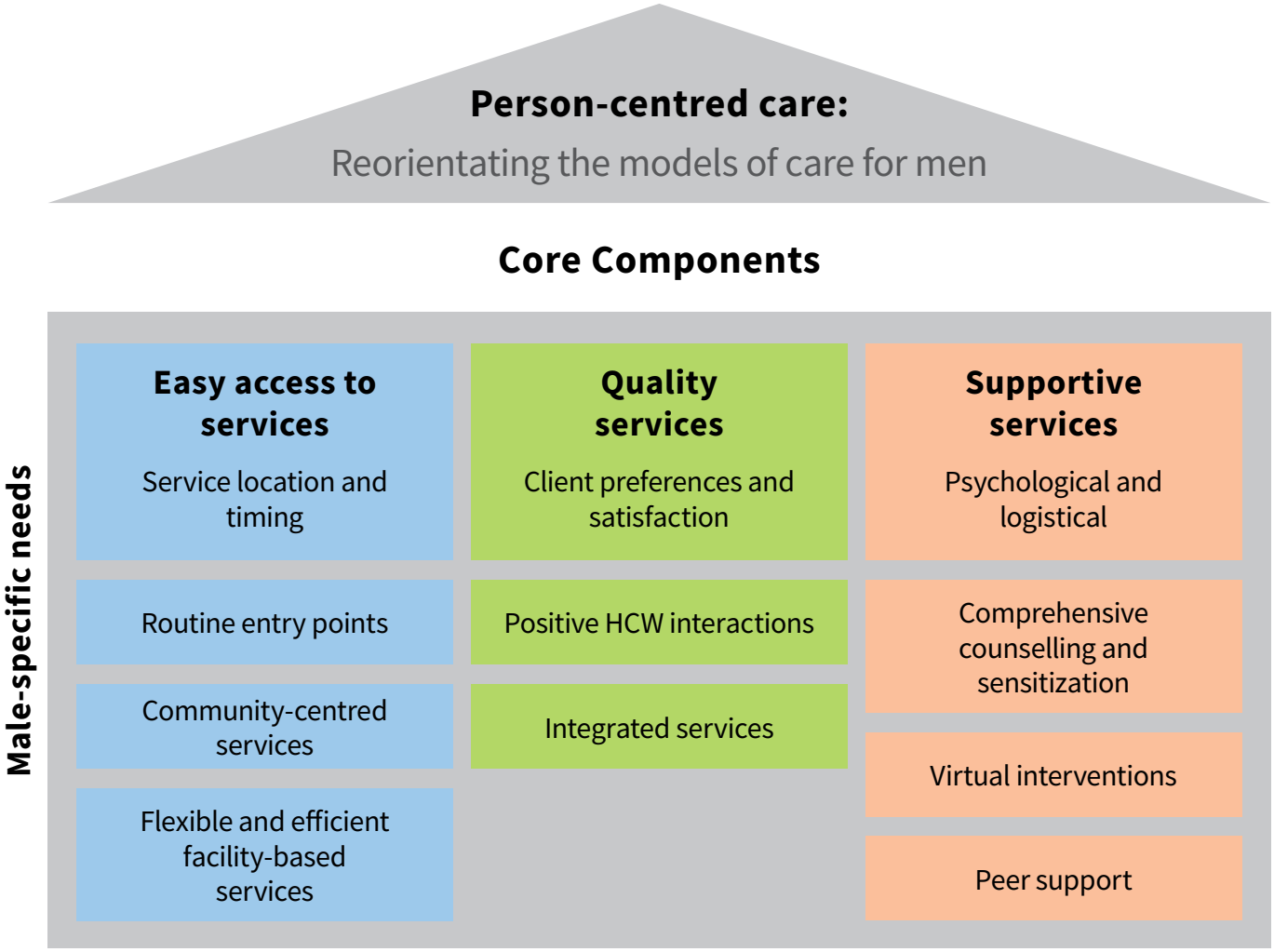
Men, like all people, thrive when health services are responsive in ways that align with person-centred care *(22)*. Person-centred care reorients health services in ways that put people and communities at the centre of service delivery strategies *(20)*. WHO provides extensive guidance on person-centred care in *WHO global strategy on integrated people-centred health services 2016–2026 (20)*. The *Men's framework of action* focuses on Strategic Goal 3: Reorientating the model of care to describe specific strategies to reach men with HIV and related health services.

Person-centred health services can offer an immediate strategy to change health system barriers and more effectively navigate structural challenges within economic systems and gender norms *(71)*. Men need services that are **easy to access**, are **delivered with quality** and are positive experiences, and **supportive services** that are responsive to men's unique needs (see Fig. 9) *(21, 22)*. Below are the three components of person-centred services.

- **Easy access to services**: Flexible and efficient services that accommodate time limitations related to men's work schedules.
- **Quality and discrimination-free services**: Accurate and holistic services with respectful and tailored client-HCW interactions that increase client satisfaction and service coverage.
- **Supportive services**: It is essential that men be offered short- or long-term support, tailored to address remaining barriers to care. Examples of supportive services include assisted status disclosure, intensive counselling and ongoing peer support. These services are often time bound and implemented with a minority of male clients.

Person-centred health services can offer an immediate strategy to change health system barriers and more effectively navigate structural challenges within economic systems and gender norms.

Fig. 9: Person-centred care framework for identifying health service interventions for men



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Overarching strategies to meet men's needs

There are several overarching strategies that can directly address men's unique barriers to HIV and related services.

Below is a summary of barriers experienced by men and strategies to address them (see Table 1).

Table 1: Barriers and solutions to men's use of HIV and related services, by person-centred care domain

Male-specific barrier	Solution
Easy access	
Lack of service entry points → Men lack routine entry points or expected touchpoints between themselves and the health system, whereby all men are recommended to seek services across the life course (i.e., marriage, pregnancy of partner or ageing).	**Routine entry points** Increase the number of opportunities men have to engage with health services as clients, maximize potential entry points for men, including outpatient and emergency room departments, sexual and reproductive health services, and antenatal care (ANC) and childcare visits.
Facility services → Long wait times, travel time and cost related to attending health facilities can conflict with work demands for men, especially mobile and primary wage-earning men.	**Community-centred services** While most men attend health facilities, community-centred services provide convenient access points those who are unable to attend primary health care settings and can help reduce cost and concerns of stigma.
Inflexible services → Frequent facility attendance and limited service delivery strategies can restrict men's income generation opportunities and risk unwanted disclosure.	**Flexible and efficient facility-based services** DSD strategies can improve use of services. Considerations for DSDs should consider ways to minimize time required to access services and maximize flexibility and client autonomy for service delivery strategies (i.e., self-test strategies, reduced wait times and/or reduced number of visits).
Quality services	
Negative interactions with HCWs → Negative interactions with HCWs can deter anyone from seeking future health services, including men. HCWs may be ill equipped to navigate men as clients and the circumstances (work demands or unexpected travel) that leads to delayed health-seeking behaviour.	**Positive interactions with HCWs** Positive HCW interactions are based on kindness and respect in order to support men. Therefore, it is important to strengthen HCWs' competency to provide responsive services in which men's preferences and opinions are valued and their agency and empowerment are bolstered.
Siloed services → Services for HIV and related conditions are rarely offered to men when they make non-HIV facility visits. HIV and related services are often siloed or offered near departments focused on ANC and children under five years of age. As a result, men often face increased risk of unwanted disclosure because men attending those departments could only be accessing HIV or related services.	**Integrated services** Maximize services offered to men when they do attend health facilities by offering HIV and related services and related education/ counselling activities at emergency and outpatient departments. Integrate HIV and related conditions within general services where possible to facilitate holistic care and ensure confidentiality and anonymity.
Supportive services	
Limited health knowledge → Men may have poor knowledge and motivation related to HIV and related conditions, services available to prevent or treat conditions, and how to navigate health facilities to successfully access health services.	**Comprehensive counselling and facility navigation** Comprehensive counselling tailored to men's particular concerns (namely, wage earning, sexual partners, children, lifestyle, etc.) and needs. Provide opportunities for men related to other men through peer support mechanisms (namely, 1:1 peer mentorship and adherence groups).
Lack of male-to-male support → Men may lack social connection and support with other men, especially for support related to HIV and related conditions.	**Peer services** Peer support is crucial for many people living with HIV. Counselling and ongoing support from other men can provide meaningful relationships and connections for men.
Mobility and inconsistent facility attendance → Men commonly have work demands that require mobility and the inability to attend facilities regularly.	**Virtual interventions** Virtual interventions can provide consistent support and adherence reminders while not requiring men to be physically present.

Easy access to services

Easy access to services is central to making services work for anyone, including men *(35)*. Men face unique challenges to accessing services due to:

- limited exposure to preventive and screening health services; and
- conflict between income generation and time required to access health services.

These challenges can be addressed by increasing the number of opportunities men have to engage with health services as clients (i.e., routine entry points), offering community-based services for those who do not attend health facilities, and providing flexible and efficient facility-based services.

Routine entry points to services

Challenge

Differences between men and women's use of health services often stem from the fact that women have more routine contact with health systems than men *(23)*. Routine contact with health systems is important. Regular entry points help clients become comfortable navigating health services and facilitate various forms of health education and holistic counselling.

International and national guidelines provide few opportunities for men to access services for their own health, apart from acute care. One systematic review found that "men are not encouraged to engage directly with health services unless these are linked to, and concomitantly impact on women's health" *(35)*. There is little reason for men to attend facilities for routine, preventive services.

Differences between men and women's use of health services often stem from the fact that women have more routine contact with health systems than men.

Case example:

In Malawi, national guidelines for routine and preventive services recommend between 176–433 health service visits for women during their reproductive lifespan (15–44 years of age). Service recommendations are primarily for family planning, antenatal and postnatal purposes, and for services for children under 5 years of age. In contrast, guidelines recommend 32 health service visits for men within the same age range, and primarily for HIV testing and VMMC (36). Additional preventive and screening services for NCDs are recommended for older men (and women).

Minimal exposure to routine, preventive services have numerous implications for men's health. HCWs may have less experience with men as clients and may be less equipped to address men's unique needs, leading to poorer client-provider interactions *(35, 36, 72)*. Limited routine entry points may also lead to suboptimal knowledge and motivation for men's preventive behaviours and health services, reduced comfort-level accessing health services, and general perceptions that routine facility attendance is not "normal" for men *(23, 36)*.

Solutions

Ensuring that both women and men have routine entry points into health systems is an important strategy for closing sex differences in HIV and related health services. Health systems can become more inclusive of men's needs by increasing the number of opportunities men have to engage with health services as clients for men's own health *(35)*. Routine entry points for screening and preventive services are especially needed.

Ensuring that both women and men have routine entry points into health systems is an important strategy for closing gaps in men's use of HIV and related health services.

Potential services for men could include the following strategies.

- **Promote routine sexual and reproductive services for men.**

  Men have extensive sexual and reproductive health needs, both for their individual health and for the health and well-being of their families *(73)*. These, however, go largely unmet *(74)*. Factors such as a lack of access to services, a lack of targeted services and of male-friendly services for men, and poor knowledge and inadequate health-seeking behaviour contribute to underutilization of sexual and reproductive health services *(74)*. An increased focus on services for men across their life course is needed.

  Men's sexual and reproductive health needs change throughout the life course. Providing men with targeted, age-appropriate services allows for active engagement based on the needs and unique risk factors associated with men's age and relationship status *(73, 75)*.

- **Offer male-specific services during partner's pregnancy.** Engaging fathers in holistic services (not just HIV testing) and health education for their own health can leverage men's desire to prepare for fatherhood *(76–82)*. WHO promotes male partner engagement initiatives that depend on active approaches that directly target men for direct service delivery, rather than relying on passive referral *(18, 83, 84)*. See Fig. 10 *(85)*.

  Services for prevention of mother-to-child transmission, though typically tailored for mothers only *(86)*, may incorporate services directly targeting men's sexual and reproductive health, along with prevention and screening services for other illnesses such as NCDs. Men's use of HIV and related health services during pregnancy of partners can advance the triple elimination of vertical (mother-to-child) transmission of HIV, syphilis and hepatitis B virus by using prevention and treatment services, and supporting services for female partners and children *(86)*.

  Community-based services, such as those offered in church or mosque-hosted baby shower events for pregnant women and their partners, effectively provide health assessments, testing for HIV and hypertension, and ART linkage for men and women during critical life events *(87)*.

- **Promote routine screening and treatment services for NCDs.** NNCDs, also known as chronic diseases, include cardiovascular diseases (CVDs) like heart attacks and strokes, cancers, chronic respiratory diseases such as chronic obstructive pulmonary disease (COPD) and asthma, and diabetes. NCDs kill 41 million people each year, equivalent to 71% of all deaths globally *(89)*. The majority of those who die from NCDs live in LMICs.

  WHO has called for accelerated action to strengthen health systems to increase access to prevention, detection and control services through people-centred primary health care and universal health coverage *(90)*. Evidence shows such interventions are excellent economic investments because, if provided early to patients, they can reduce the need for more expensive treatment.

  Since 2018 the WHO has promoted the integration of screening services for NCDs (monitoring and measuring blood pressure) within existing disease programmes such as HIV and other sexual and reproductive health services *(91)*. Although services available rely on context-specific resources, evidence from the region suggests integration of NCD screening into national HIV programmes can increase both NCD diagnosis and treatment, as well as ART adherence *(92, 93)*.

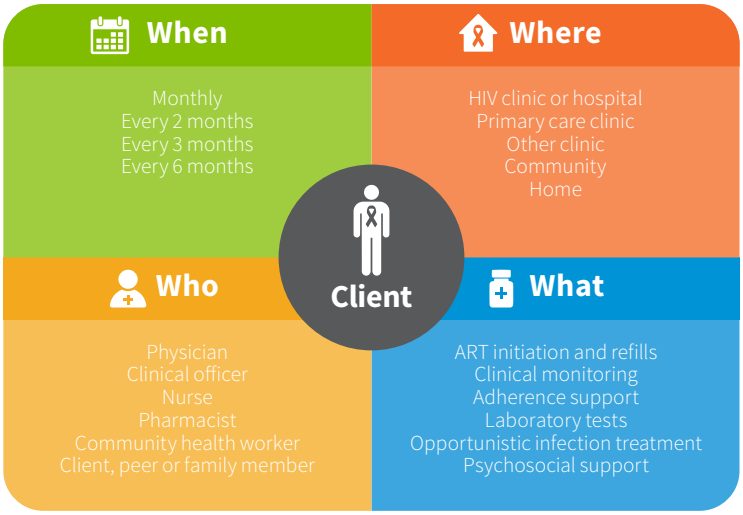
Fig. 10: Depiction of prevention of mother-to-child transmission from male-specific counseling curriculum in Malawi *(85)*

Flexible and efficient facility-based services

Challenge

Frequent facility attendance at particular locations and times can restrict men's income generation opportunities and risk unwanted disclosure. Inconvenient opening times, which are often limited to typical business hours and conflict with crucial income generation activity, act as a significant barrier to facility attendance *(93, 94)*. These barriers become increasingly difficult for men to overcome if compounded by long distances to facilities and high transportation costs, particularly in LMICs *(39, 95)*. Once at the facility, lack of privacy and long wait times are known deterrents for continued engagement in facility-based services among men *(96, 97)*. Length of time waiting at facilities may exacerbate fears of unwanted disclosure because of the increased exposure to other health service utilizers, and therefore further prevent engagement in facility-based services *(39, 97)*.

Fig. 11: Building blocks of DSD for HIV treatment *(59)*



Solution

Services must be easily accessible and flexible to meet the changing needs of clients. DSD models can support the implementation of flexible and efficient services for men. Key building blocks for DSD models include: when, where, who and what according to population characteristics, needs and context (see Fig. 11) *(59)*. DSD models have been studied extensively for ART services, increase accessibility and convenience of services, and are feasible to implement *(59)*. Additional implementation science is needed to understand how to safely and successfully engage new and returning ART clients in DSD models, and how to apply DSD models to non-HIV services, such as TB, STIs and viral hepatitis.

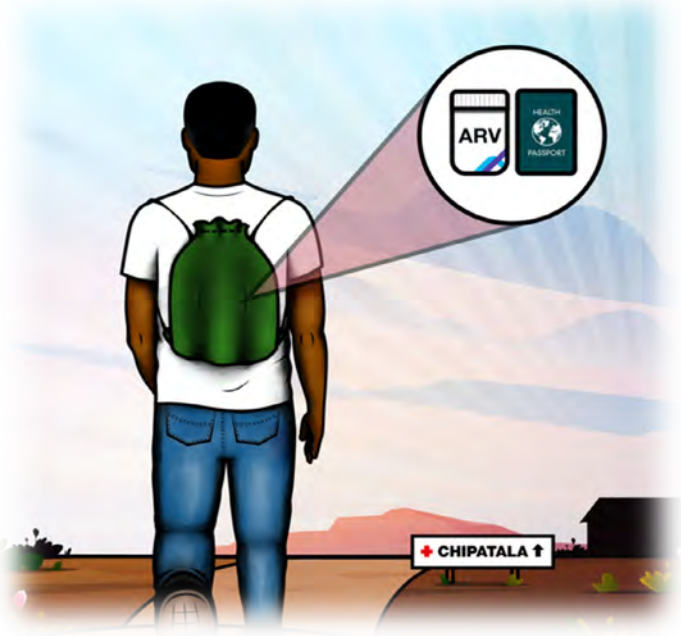
Potential DSD strategies to improve flexible and efficient facility-based services are described below.

- **Evening and weekend hours** may be essential for men with fixed work hours and should be considered, based on the local context of men targeted *(99, 100)*. Implementation of evening or weekend hours have shown mixed results across health service domains and settings *(55, 101, 102)*, emphasizing the importance of context in designing after-hours services.
- **Reduced wait times** are often essential for men *(103)* and can be achieved through **fast-track refills** and flexible hours of services, although fast track refills have not been specifically evaluated for men. Efficient services enhance men's ability to receive their medication quickly and return to wage earning, which can be highly motivating as this is related to their role/identity as an income earner *(104, 105)*.
- **Same day services** for rapid initiation of TB preventive therapy (after TB disease is ruled out) and ART can improve initiation among men *(106, 107)*. Rapid and same-day initiation should include approaches to improve treatment adherence and retention, such as tailored patient education, counselling and support *(59)*.
- **Reduced number of facility visits** required to access services can make services more appealing and accessible to men. **Six-month dispensing** of ART improves long-term retention among established male clients in some studies *(108)*, and is noninferior in others *(9)*. **Emergency refills**, whereby clients can access ongoing treatment refills at any health facility, is desired by mobile men and seen as essential to sustained retention in HIV care *(109)*, although there is little evidence on the impact of emergency refills (see Fig 11).
- **Self-testing and self-care** are increasingly recognized as ways to increase access, efficiency, effectiveness and acceptability of health care across many different disease areas, including HIV *(110)*. **HIV self-testing (HIVST)** is easy to use, private and convenient for men to use in a variety of settings *(111–113)*. HIVST is now recommended for use in facilities, for starting or continuing PrEP, and to promote testing through sexual and social networks for general populations in high-burden settings, and in populations and regions with the greatest gaps in testing coverage.

Case example:

High-risk heterosexual men and men who have sex with men desire PrEP (114–116). While there is little evidence on PrEP for the general male population, WHO guidance for PrEP (not male-specific) suggests that differentiated and simplified PrEP service delivery models be explored (57). See Annex 2 for key building blocks for PrEP-differentiated services that can be tailored to specific populations, including men.

Fig. 12: **Depiction of travelling man from male-specific counselling curriculum in Malawi** *(85)*



Case example:

Men are better reached by tailored, differentiated services. TB services, including testing, medication monitoring, medication dispensing and case finding, can be integrated into differentiated HIV service delivery models in which men participate, such as adherence clubs, support groups, and community-based services and testing. WHO guidance encourages establishing mechanisms through which key elements of TB care can be included in DSD, including specimen collection and transport, TB-specific counselling, and adverse event reporting (117).

Community-centred services

Outside facility services, another component of DSD models (see Fig. 11) may facilitate access to HIV and related services for subpopulations of men *(104, 118, 119)*. Outside facility services can, at times, provide easier-to-access services by reducing distances to services, being more amenable to flexible schedules for when services are offered, and may be more private than facility-based services. Importantly, services should be designed around the unique needs of each community.

Examples of potential community-based services include the following options.

- **Workplace services** are important for male populations who congregate at a central work location and may have limited access to routine facility services due to work constraints. They may be particularly useful for mobile and migrant workers who find it difficult to access facility-based services in new or unfamiliar communities *(96)*. Men in LMICs often perform informal piece-work that does not provide benefits or leave days *(120)*. Spending a full day accessing health services is directly tied to income loss and, for men in poverty, reduced food and security for their families *(121)*. Offering holistic health services at workplaces can help address these barriers *(122)*.

  Workplace testing should be implemented within a framework of HIV and AIDS workplace policies that ensure confidentiality and protect workers who are diagnosed with HIV from losing their jobs and from other forms of discrimination.

- **Community-centred/mobile services** may be especially useful for subpopulations with additional challenges to facility attendance (such as young men), and for health services where high service coverage is essential for epidemic control and/or health outcomes. This strategy may reach the highest proportion of men in a short time period, especially for populations who do not frequent the health facility, like young men *(123–127)*. However, the strategy is often more costly than other delivery models *(128)*. Locations where men gather, such as football games and trading centres, may reach larger numbers of men.

Case example:

Multi-disease health screening campaigns were conducted to increase men's uptake of HIV testing and other health services in the Democratic Republic of the Congo. This intervention was offered to people in the general population aged 15 years and older, with a particular focus on males, especially those in the 20–39-year-old range, since young men tended to lack awareness of their HIV status. Community health workers conducted sensitization campaigns in the areas surrounding eight health facilities, and disseminated tailored messaging to raise awareness of free, multi-disease screenings available at the facilities. Individuals interested in the screenings were given appointment slips to return to the health facility for a free consultation and screening outside of working hours. Facility-based providers offered free screenings for hypertension, hyperglycaemia, STIs, pneumonia and dermatitis, based on the client's eligibility and preference. Following screening, the person's HIV risk was assessed using the national HIV risk assessment tool, and he was offered HIV testing, if appropriate. Men screened who tested positive for any of the infections were linked to follow-on care and treatment services at the facility, including same-day ART initiation for those confirmed to be HIV-positive. Almost 3000 individuals participated in the multi-disease screening campaign, among whom 57% (1629) were male, 210 were confirmed HIV-positive (a 12% positivity rate), and 192 (91% of those testing positive) were enrolled on ART. This approach was offered under the Integrated HIV/AIDS Project in Haut-Katanga (2017–2023) with funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) through the United States Agency for International Development (USAID) (129).

- **Faith-based services** offered by faith-based organizations have historically taken a lead in HIV epidemics, providing support for those impacted by HIV epidemics worldwide, particularly in sub-Saharan Africa *(130)*. Demand creation, services provision, and holistic support can be provided through faith-based organizations *(130)*. Faith-based organizations can also drive advocacy to tackle stigma and discrimination *(131)*, the key barriers to service utilization. Such organizations are key to understanding local cultures and practices that affect health *(132)* and to leverage social capital, increase impact and sustain intervention gains.

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Case example

Focused faith community events and campaigns can be designed to reach men in high burden settings or in areas with low HTS coverage. Such events or campaigns are essential to support linkage to prevention, treatment, care and support, while addressing HIV-related stigma and discrimination. Religious leaders can play an influential role in this, as demonstrated in a 3-phase intervention conducted as a partnership between Anova Health Institute and the International Network of Religious Leaders Living with or Affected by HIV and AIDS (INERELA+). The project aimed to address the testing gap among men by counselling men attending 47 religious congregations across South Africa. The intervention consisted of a three-day training course focusing on improving religious leaders' knowledge about HIV and HIV transmission; their skills in discussing HIV in their congregations and communities; their attitudes toward HIV and people living with HIV; and their project planning skills. After the training, religious leaders continued to be mentored by intervention staff, and were supported by two community "champions" tasked with raising awareness about HIV testing among men in the local community, and a health care worker responsible for supporting the recruitment of individuals to be tested. Religious leaders then held HTS campaigns at their churches, during which they spoke about HIV and encouraged church members to get tested. By the end of the intervention, 52% of men who attended the campaigns tested for HIV, 35% of whom were first time testers (133).

Case example

Zambia's Faith-Engaged Community Posts (CPs) support decentralized HIV testing and treatment, and offer prevention services provided by local faith-engaged and community staff (131). This program successfully reached more men than the Non-Faith-Engaged CPs and increased HIV testing and retention in HIV treatment among men. Due to success in Zambia, the CP model is being replicated in Côte d'Ivoire, Kenya, South Sudan, and Zimbabwe. The model's success is linked to decentralized services embedded in high-activity geographic locations; multidisciplinary staffing, including community health workers; ongoing engagement of local faith and community leaders with morning trainings on how to facilitate respectful and compassionate interactions with clients; and continuous staff mentoring.(134)

- **Sexual and social network-based** testing is an approach for engaging sexual and social contacts of people with HIV or related infections (such as STIs, HIV/TB co-infection or viral hepatitis), and of those at ongoing risk of infection. This approach includes providing contacts with information about testing services or providing contacts with self-tests.

Social network testing has shown to increase HIV testing among sexual partners and social contacts as well as the number of first time testers, leading WHO to expand their recommendation of social network testing beyond key population groups to anyone in high burden settings *(110)*. This expansion will be particularly beneficial for men who are not a part of key populations and may not attend health facilities regularly.

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Quality services

While quality services are important for everyone, there are specific aspects that seem to be most important to men, and if not provided can quickly deter future use of services. Prominent challenges with quality services include:

- negative interactions with HCWs
- siloed services
- lack of private and confidential services.

These challenges can be addressed by increasing positive interactions between male clients and HCWs and providing integrated services where possible.

Positive interactions with HCWs

Challenge

Interactions with HCWs matter. While client satisfaction and HCW interactions for male clients is under-studied, emerging evidence suggests that the strongest predictor of whether a man will present to a facility for additional services in future is how they were treated in their previous encounter *(135)*.

Within the context of HIV and related services, HCWs have less experience interacting with men as clients as compared to women, who attend the facility regularly *(136)*. As a result, HCWs may have fewer skills to successfully navigate gender dynamics for men *(137, 138)*. Men are "predominately conceptualized as either 'gatekeepers' to improve women's health, or as 'masculine men'", whose positions of power and notions of masculinity keep them from accessing health services *(35, 72)*. Various misconceptions and discrepancies between HCW perceptions and those of male clients exist *(72, 139) (Table 2)*.

Table 2: Perceptions of HCWs and male clients living with HIV in South Africa *(140)*

HCWs often think...	But men told us...
Men are stubborn and indifferent.	Men are anxious and afraid, to the point of paralysis.
Men have plenty of sources of support available to them.	Men have no one they trust enough or feel safe with to talk about HIV.
Men should know that HIV is no longer a death sentence.	Men anticipate physical, social and/or sexual death due to HIV, and the latter two are even worse than the first.
HCWs are caring and compassionate.	Men are intimidated by the clinic and anticipate a negative HCW interaction.
HCWs are helping men by being proactive.	Men often feel hunted and coerced, and they want to remain in control of decisions about their health.
HCWs are providing counselling and guidance, but men refuse to follow it.	Men experience counselling as scripted and didactive, rather than speaking to their personal fears and barriers.

Solutions

Several strategies can facilitate positive client–provider interactions.

- **Promote client-centred services for everyone.** Men, like anyone, respond best when they feel respected, their preferences and opinions are valued, and they have a reciprocal relationships with HCWs *(141–144)*. Teaching and implementing techniques to foster these interactions may improve client satisfaction with care and therefore future use of services.

  For example, tracing and re-engagement efforts for HIV treatment are more effective if they are welcoming, show empathy, are non-judgemental and speak directly to men's concerns *(142, 145)*. Such interactions can reassure men that they are valued as clients, build trust with HCWs and encourage re-engagement.

- **HCW sensitization training and job aids** may be useful for the challenges men face and for how to interact with male clients with kindness and respect, thereby building skills to engage men as clients *(34)*. HCW training on the unique needs of men and adolescent males *(146)*, and on couples counselling during ANC visits *(147)* can increase men's use of HIV services.

- **Male-friendly spaces within facilities can promote client satisfaction and positive interactions with HCWs** *(148)*. Male-friendly spaces that allow men to congregate together and access male-specific services also increase men's testing during pregnancy *(149)*.

Integrated services

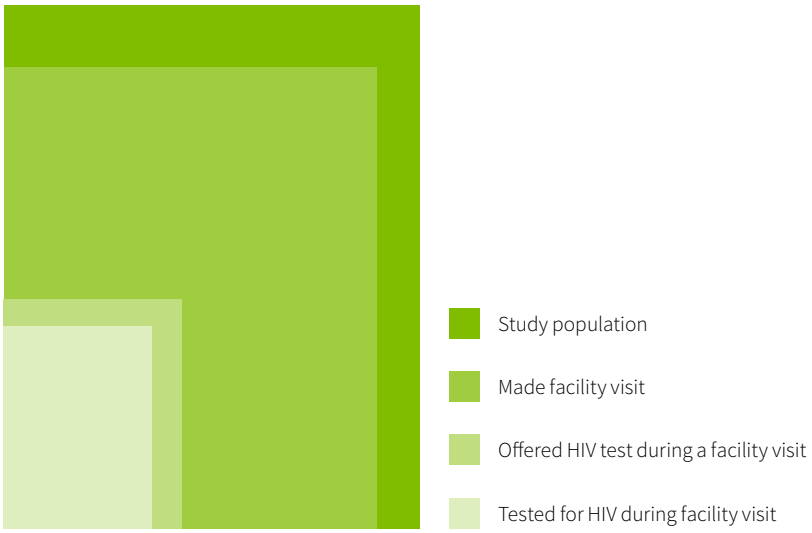
Challenges

Health systems miss opportunities to reach men with comprehensive services, including HIV and related services. Globally, there is evidence that men do attend health services for themselves and as caregivers for others' health *(37, 150)*. Men primarily access acute and curative care, and therefore mostly attend outpatient or emergency departments *(150)*. In many parts of sub-Saharan Africa, men comprise the majority of emergency department attendants *(151–153)*. Yet these departments rarely offer routine screening for HIV and related services *(150)*, missing a key opportunity to engage men already attending health facilities.

Men *do* attend health services regularly for themselves and as caregivers for others' health, but they are not targeted with services that meet their needs.

In Malawi, more than three quarters of the general male population attend at least one health facility visit in the previous 12 months for non-HIV-related services, both as clients seeking services for themselves and as caregivers supporting health services for others. Among those who attended a facility, only 7% were offered HIV testing (see Fig. 13) *(150)*.

Fig. 13: Proportion of men visiting a health facility in the past 12 months, offered HIV testing and accepted HIV testing, Malawi, 2019 (150)



In contrast, the majority of women at risk of HIV infection are offered HTS and HIV education during antenatal and/or postnatal services *(154)*. In eastern and southern Africa, HIV services may also be offered alongside family planning and services for children under 5 years of age.

Lack of holistic services can create a stigmatizing environment within health facilities, where clients' attendance at HIV or related services' facilities risks unwanted disclosure. Men living with HIV often face unique challenges keeping their HIV status private and confidential due to the frequent facility visits required to access HIV services, which are often provided within a health facility *(36)*. Men may have increased risk of unwanted disclosure if HIV services are offered near female-focused services such as antenatal and family planning services. Additionally, because men are offered few routine services other than HIV or TB services, men who frequent the health facility may be assumed to be living with HIV or TB *(150)*. The risk of unwanted disclosure may discourage men from accessing services, especially if men feel healthy at the time of needing care *(25, 155)*. Unwanted disclosure threatens men's sexual relationships *(39, 111)* and respect within communities *(36, 156)*.

Solution

Health systems can maximize services received by men by offering HIV and related services in departments that men frequent, provide integrated care where possible, and ensure all services offered are done so in a private, confidential manner.

Solutions include:

- **Offer HIV and related services when providing outpatient and emergency health services.** Programmes must reach men more efficiently when they do attend health facilities. Routinely offering screening services alongside other health services improves screening across HIV, STI, viral hepatitis and TB services *(60, 157–159)*. Men are most likely to attend facilities for outpatient and emergency services *(159–161)*. Ensuring that these services are equipped to offer men additional health education, screening services and Welcome Back strategies for HIV and related services can provide a critical entry point for men's services, and thereby increase service uptake among the general male population. Literature finds that offering HIV or related services is the

greatest predictor of men's actual use of services *(162)*. Modelling data from Malawi show that increasing the number of men offered HIV testing at outpatient departments can significantly increase testing coverage across the male population *(160)*.

For HIV testing, HIVST can improve uptake of HIV testing among men (regardless of how it is distributed) *(163, 164)*, and may be considered for facility-based distribution if there are not sufficient human resources to offer HIV testing to men accessing outpatient or emergency services *(161)*.

- **Integrate HIV and related services within general health services where possible.** Integrated services can facilitate holistic care and ensure confidentiality and anonymity *(165, 166)*. Integrated services that provide a **"one-stop-shop"** have been effective for men's use of a variety of services, including VMMC *(55)*, HIV testing *(167)*, and multi-disease (hypertension, diabetes, malaria, mental health and TB) screenings *(168)*.

All services should be offered in an environment that is private, confidential and where men feel welcome in order to reduce fears of unwanted disclosure and stigma.

Case example:

The importance of integrating HIV prevention, testing, treatment, mental health services and care for people living with HIV and other vulnerable populations, including linkages to social protection services, cannot be overemphasized. WHO and UNAIDS published a technical document in 2022 on the Integration of mental health and HIV interventions, which brings together WHO consolidated guidelines, tools and resources on HIV testing, prevention, treatment and care as well as additional resources including case studies of integrated services and care (169).

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Supportive services

It is essential that men be offered supportive services that are responsive to men's unique needs and address remaining barriers to care. Supportive services may be short- or long-term and provide essential one-on-one support to overcome interpersonal, social or structural barriers to care *(170)*. Not all men will require supportive services. Those that do may benefit most from comprehensive counselling and sensitization, social support through peers, including virtual interventions, and facility navigation.

Comprehensive counselling and sensitization

Challenges

Men often have limited or out-of-date knowledge about HIV-testing, treatment and its benefits, including key messaging about Undetectable = Untransmittable (U = U) *(171)*. Literature from the region suggests men are commonly unaware of or underestimate the benefits of ART *(172, 173)*. Counselling and sensitization efforts often do not include messages that appeal to men and their priorities, such as fatherhood *(82, 174)*. Lack of male-tailored messaging may prevent men from gaining the tools with which to navigate unique economic and logistical barriers to treatment *(175)* as well as social expectations of manhood in conjunction with treatment engagement *(38, 176)*.

Solutions

Supportive services such as peer-to-peer mentorship and developing skills around navigating health systems can facilitate positive HCW interactions and client agency. Supportive interventions are highly heterogenous and should be tailored to context and men's individual needs.

- **Male-tailored counselling** can increase men's self-efficacy to navigate barriers to care, make health services feel relevant to their personal lives and individual priorities, and help them feel seen and valued by the health system. Tailored counselling for men may also encourage men to return to care in a timely manner after experiencing treatment interruption. Male-specific counselling, tailored to men's unique needs and motivations, is highly desired by men accessing STI, HIV and TB services *(111, 145)*. There is emerging evidence that male-specific counselling can improve engagement *(145, 177, 178)*.

  U = U messaging should be a cornerstone for male-tailored counselling as it speaks directly to many common concerns of men, including a desire to live a "normal" life following diagnosis, fear of transmission to sexual partners and children, and desire for health and physical strength in order to continue to be a wage earner *(178)*. (See Fig. 14).

Fig. 14: U = U messaging for men

Regular adherence, even when healthy, *enables* men's role as provider and ability to build a stronger future for themselves and their families

Undetectable viral load *empowers* men to protect sexual partners and prevent vertical transmission

- **Communication campaigns directly targeting men** can improve men's use of a variety of services. Like tailored counselling, campaigns that directly speak to men's priorities and concerns, relay non-judgemental and easy-to- understand narratives, and incorporate stigma reduction may be most successful. Key to their success are consultations and co-creation with target audiences while ensuring interventions do not reinforce harmful aspects of gender norms but instead promote gender-transformative perspectives that benefit both men and women. *(179)*.

Case example:

RISE-Valor seeks to strengthen HIV case-finding, prevention, treatment and viral load suppression services for men in Nigeria. Their approach is to provide support for men prior to testing with trained online "VIP guides" who mentor, provide information and answer questions via WhatsApp and Facebook messaging. The mentors help link men who test HIV-positive to services, support them with dynamic case management, and encourage their personal growth as they experience the "ups and downs" of living with HIV. The project aims to make them feel like a VIP, break with trauma, normalize fears, help envision a happy future, destigmatize risk, encourage and validate. Slogans used include "Claim courage – you are not alone, because our VIP guides will be with you at your every step"; "You will have love because new treatment means you can't pass it on to anyone else"; "You can enjoy life because the new treatment is so easy; just one pill a day". Social media support is combined with radio shows and in-person community support. The impact includes increased uptake of PrEP and testing, and increased linkage to ART services (129).

Virtual interventions

Challenges

Many men in sub-Saharan Africa face unpredictable, unstable employment, which impacts their ability to access health services consistently *(38, 45, 46)*. Absence from physical health care settings can result in inconsistent screening for HIV and related illnesses and poor medication pickups and adherence. Although men desire consistent, supportive interactions with HCWs, mobility demands can hinder in-person interactions, leading to an increased sense of isolation and lack of support.

Solutions

Although virtual interventions may hold promise for men, there is limited evidence to date within LMICs. Virtual interventions can have a positive effect on HIV knowledge and prevention behaviour compared with minimal health literacy interventions alone (for example, leaflets), and may be as effective as face-to-face interventions *(64)*. Virtual interventions may be especially important for harder-to-reach subpopulations of men (such as mobile men and men who have sex with men) because virtual technology can provide fast, convenient and private education and support without risk of stigma and discrimination, and regardless of the client's travel requirements.

Peer support

Challenges

Support from peers can provide the psychological and emotional support necessary to navigate the challenges of a stigma-related diagnosis of STIs, HIV and TB, such as internal and external stigma *(180) (see Fig 15)*. Yet while there are numerous peer counselling and mentorship programmes tailored to adolescents *(181)*, and mothers living with HIV *(182)*, there are very few led by men and for men *(140)*. Some men relate to and prefer male-to-male support when discussing their challenges, particularly when they are private or related to sexual partnerships *(35, 183)* and fellow men may be able to better relate to struggles men face.

Fig. 15: Depiction of peer-to-peer support from male-specific counselling curriculum in Malawi *(85)*

Solutions

Peer-to-peer support improves initiation and retention outcomes for adult men *(184)*. Men want peer support for multiple health services, including TB *(185)*; sexual and reproductive health *(186)*; and HIV prevention strategies *(114)*, testing and treatment *(187)*. Men deeply desire to have meaningful, trusting relationships to talk about their concerns and exchange advice about balancing the demands of health services and other family and community responsibilities *(144)*.

- **Peer mentor models** can provide men with reliable sources of support and, when the mentor is also living with HIV, provide a tangible example of living successfully with HIV *(145)*. Being able to relate to one another based on one's HIV status or shared experiences, such as work, responsibilities, relationships and leisure activities, can help provide the support necessary for medication adherence and overcoming challenges, such as fear of stigma. In addition, engaging adolescent boys and young men living with HIV in the co-creation and delivery of interventions can help improve the mental health of their male peers.
- **Tailored youth-focused treatment packages**, such as teen clubs, can provide peer support for young men and improve retention among male youth *(146, 188)*.
- **Peer support combined with virtual interventions** shows promise in improving HIV and TB treatment retention *(189)*. However, implementation remains a challenge if the majority of men do not have smart phones or often change numbers, thus making it difficult to retain clients in longitudinal virtual programmes.

Case example

Integrating elements of traditional peer mentor and case management models, Coach Mpilo trains men living with HIV – not just clinically, but also socially and emotionally who are struggling with barriers to testing, linkage, adherence and disclosure. Coaches focus in particular on men who are newly diagnosed with HIV or who have disengaged from care, leveraging their own experiences of living with HIV to help men identify and overcome challenges and become stable on treatment. Based on formative research with more than 2000 men, Coach Mpilo builds on several key insights: 1) coaches break through the isolation, denial and paralysis that many men experience in response to an HIV diagnosis; 2) coaches provide men with a safe, credible, relatable source of support; and 3) coaches serve as living proof that it is possible to live a long, healthy, happy, "normal" life with HIV. In its pilot phase (March to September 2020), the programme successfully enrolled 92% (n = 3848) of men invited to participate. Short-term retention in ART was high, with 95% (n = 3653) of participants reported as current ART users at the end of the pilot period (145). Subsequently adapted and scaled by seven PEPFAR partners in South Africa, under the MINA For Men For Health campaign, the model has achieved similar results in routine implementation, with partners reporting 98% linkage and 94% retention over the 24-month period of FY21 Q3 to FY23 Q2 (145).

Case example

Zvandiri has been focusing efforts on supporting the specific set of challenges faced by adolescent boys and young men (ABYM) living with HIV in Zimbabe by engaging adolescent boys and young men living with HIV in the co-creation and delivery of interventions to improve the mental health of their male peers. Male Community Adolescent Treatment Supporters (CATS), aged 18–24 years, articulated their vulnerabilities associated with the combination of HIV stigma and the social expectations and norms related to being male that, in turn, result in poor mental health and substance abuse. Many are trying to navigate the transition from adolescence to adulthood having lived with many unacknowledged losses and with few male role models. The young men identified the need for peer support, not only from peers living with HIV, but specifically male-to-male and young dad-to-young dad. In collaboration with the young men, Zvandiri has developed and piloted interventions focused on self-stigma, bereavement and young dads. These evidence-based interventions first provided therapeutic support to the CATS themselves, then helped build their capacity to address these specific challenges in the peer support they provide to other ABYM (188).

Conclusion

Men continue to be left behind in the attainment of desired HIV and related health outcomes. Ongoing gaps for men's use of health services negatively impact men's health, and the risk of HIV infection for young adolescent girls and women. Across nearly all regions, men living with HIV are less likely to access HIV services, less likely to get tested, less likely to be virally suppressed, more likely to present with advanced disease and consistently fare worse across the HIV testing and treatment continuum. Sex differences in service utilization that delay realizing the 95–95–95 targets continue to widen, with negative consequences for men and women. Immediate action is required.

There are clear and immediate steps to reduce established barriers to health services and improve outcomes for men. Men require interventions across multiple components of a person-centred care framework that enables easy access to care with routine and flexible entry points; quality services with integrated and person-centred interactions; and supportive services to navigate health facilities and overcome interpersonal, social and/or structural barriers to services. Such interventions can be embedded within universal person-centred care approaches that benefit everyone, including women, men and youth.

Gender norms partly explain why some men delay seeking care, but other factors are also at play. In many resource-limited settings, health systems are largely designed to address critical maternal and child health needs. Similar entry points for men are not commonplace.

It is important that we recognize and reach men in all their diversity, including key populations, such as people who inject drugs, people in prison and men who have sex with men, all of whom face numerous social and structural barriers to care, as well as those who have been previously excluded from health services.

Several research priorities need to urgently advance men's HIV and related health outcomes, including finding further evidence on how to reach men with related health services, such as safer sexual practices, STIs, viral hepatitis and HIV/TB co-infection. Additional evidence is needed on how holistic, multi-disease interventions can best reach men in all their diversity; evidence from the field of implementation science is required on how routine entry points for men and integrated services can be operationalized and optimized within resource-constrained health systems; and evidence that demonstrates which differentiated care models are safe and effective for men who experience treatment interruption and continued barriers to ongoing engagement in care.

We need to shift away from blaming men for poor health-seeking behaviour. Men need, are willing and deserve to have access to services. Focused efforts are needed to reach and engage men to stay free from HIV, get tested regularly and start and stay on treatment. This will improve both male health outcomes and contribute to the decline in new HIV infections among men, women and girls.

It is time health systems become a place for all populations, including for men.

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Annex 1:

Annex 1: Package of evidence-based interventions available for men from WHO guidelines on services for HIV, STIs, TB and other services.

1. HIV Prevention

- VMMC (in 15 priority countries)
- Condoms and condom-compatible lubricants
- Pre-exposure prophylaxis (PREP) for people at substantial ongoing risk of hiv infection
- Post-exposure prophylaxis (PEP) following suspected recent exposure
- Harm reduction (needle and syringe programmes, opioid agonist maintenance treatment (OAMT) and naloxone for overdose management)

2. HIV Testing Services

- Facility-based testing
- Community-based testing
- HIV self-testing (in communities and facilities)
- Provider-assisted referral (assisted partner services)
- Social network-based approaches
- Linkage to prevention and treatment
- Differentiated HIV testing services

3. HIV Treatment and Care

- Linkage from HIV testing to enrolment in care
- Art initiation
  - Rapid art initiation
  - Same day art initiation
- Support for adhrence, retention and re-engagement in care
- Advanced HIV disease package
  - Package of interventions including screening, treatment and prophylaxis for major opportunistic infections
    - Intensified adherence support interventions
- Differentiated service delivery and people centred care

4. Sexually transmitted Infection (STI) services

- STI awareness and quality counselling*
- STI prevention**
  - Condoms and condom-compatible lubricants
  - Human papillomavirus vaccine for adolescent boys (in countries with sufficient resources)
  - Post-exposure prophylaxis
- STI case management (prioritizing men with symptoms or sign of STIs and contacts of persons of STIs)
  - Diagnosis (laboratory diagnostic tests, including RDTS, or syndromic management where resources are limited)
  - STI treatment (including compliance and follow-up)
  - Partner services and linkage to care
- Targetted STI screening (testing) and treatment
- Differentiated service delivery encouraged

5. Hepatitis B and C

- Counselling on risk factors and comorbidities-including alcohol use
- Hepatitis B vaccination (for KP and others at high risk of exposure)
- Universal hepatitis B testing (in endemic and high-risk populations and as part of HIV pep)
- Hepatitis C testing (in endemic and high-risk populations including re-testing among people with ongoing high-risk behavior (such as men who inject drugs or have sex with men)
- Linkage to prevention, care and treatment services.
- HBV and hepatitis c virus (HCV) treatment
  - Hepatitis C present: provide curative treatment with pan-genotypic direct-acting antivirals (DAAS)
  - Hepatitis B present: lifelong treatment where eligible
- Simplified and differentiated service delivery encouraged

6. TB/HIV

- TB screening
  - Screen for TB disease at each visit to a health facility for men with HIV
- TB prevention
  - TB preventive treatment for men who do not have TB disease as part of a comprehensive package of HIV care
- HIV testing among people with presumed and diagnosed TB
- TB treatment of all people living with TB, including drug-susceptible and drug-resistant TB, including for those clinically diagnosed
- Early initiation of art among people with HIV-associated TB
  - Cotrimoxazole preventive treatment
- Integrated delivery of care for men with HIV- associated TB including through differentiated service delivery

7. Broader health interventions

- Mental health
- Noncommunicable diseases (NCDS)
- Anal health
- Screening and treatment for hazardous and harmful alcohol and other substance use
- Comprehensive sexual and reproductive health services

* WHO does not recommend counselling to change people's behaviours as it has been shown to be ineffective to reduce HIV/STI incidence *(33)*.
** Other benefits of VMMC include STI prevention. Circumcised men and their female partners experience lower rates of several STIs, including human papillomavirus (HPV), herpes simplex virus-2, bacterial vaginosis, and Trichomonas vaginalis *(55)*.

Refer to below links for more information on these recommendations and interventions.

- Preventing HIV through safe voluntary medical male circumcision for adolescent boys and men in generalized HIV epidemics: recommendations and key considerations
- Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: recommendations for a public health approach
- Improving men's uptake of HIV testing and linkage to services
- Implementation tool for pre-exposure prophylaxis of HIV infection - Integrating STI services
- Differentiated and simplified pre-exposure prophylaxis for HIV prevention: update to WHO implementation guidance
- Consolidated guidelines on HIV, viral hepatitis and STI prevention, diagnosis, treatment and care for key populations
- Consolidated guidelines on HIV, viral hepatitis and STI prevention, diagnosis, treatment and care for key populations
- WHO guidelines on Hepatitis B and C
- New recommendation on hepatitis C virus testing and treatment for people at ongoing risk of infection
- WHO TB guidelines: recent updates
- Global Hepatitis Programme publications
- Global Sexually Transmitted Infections Programme publications
- UNAIDS and WHO Integration of mental health and HIV interventions
- Integrating the prevention and control of noncommunicable diseases in HIV/AIDS, tuberculosis, and sexual and reproductive health programmes: implementation guidance
- WHO Alcohol, Drugs and Addictive Behaviours Unit
- A Decision Framework for antiretroviral therapy delivery

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Annex 2:

Annex 2: The building blocks of PrEP differentiated service delivery

Building blocks	PrEP initiation, initial follow-up (0–3 months), and reinitiation			PrEP continuation (3+ months)	
	Initiation	**Initial follow-up (0–3 months) if required**	**Re-initiation after discontinuation**	**PrEP refill**	**Follow-up**
Where? Service location (e.g., primary health care facility, community setting, home setting, virtual setting)	Locations for PrEP assessment and initiation	Location for initial follow-up	Locations for PrEP re-initiation	Locations where PrEP refills can be collected	Locations where follow-up services will be provided
Who? Service provider (e.g., physician, nurse, pharmacist, peer)	Service provider/s authorized to assess for and initiate PrEP	Service providers who can carry out initial follow-up visits/s	Service provider/s authorized to re-initiate PrEP	Service provider/s who can dispense PrEP refills	Service provider/s who conduct follow-up
When? Service frequency (e.g., monthly, every 3 months)	Timing of PrEP assessment and initiation	Timing of initial follow-up	Timing of PrEP re-initiation	Frequency of PrEP refill visits (length of supply)	Frequency of follow-up services
What? Service package (including HIV testing including HIV self-testing and distribution, clinical monitoring, PrEP prescription and dispensing and comprehensive service)	Service package for PrEP assessment and initiation	Service package at initial follow-up	Service package for PrEP re-initiation	Service package with PrEP refill	Service package with follow-up

Source: Adapted from the Framework for differentiated service delivery *(61)*

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