GPC
Global HIV
Prevention Coalition

People-centered HIV prevention communication

Consolidated approaches for the demand generation and behavioural aspects of HIV prevention

A programming brief on new ways
to promote HIV prevention choices

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Global HIV
Prevention Coalition

Acknowledgements

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Executive summary

Ending AIDS as a public health threat requires reducing new HIV infections at a much faster rate than is currently the case. The estimated 1.3 million new infections in 2024 were only 40% fewer than in 2010 – a long way from the global target of a 90% reduction by 2030.

A decrease on that scale requires that virtually everyone who needs HIV prevention understands their HIV risk, knows how best to protect themselves from HIV, and can access and use suitable prevention tools and services. Crucially, of course, they must also *want* to do so.

Four decades of struggle against AIDS has proved that HIV prevention has a bigger impact when it is centred on people's lived realities and needs

Four decades of struggle against AIDS has shown that HIV prevention works when it is centred on people's realities and when it puts people at the heart of programming decisions. People-centred design seeks to do that by designing products, services and systems in ways that recognize people's different needs, challenges and preferences.

Earlier approaches also anticipated that, once people were aware of their HIV risk and the availability of prevention options, they would seek out and use those tools and services. The assumption was that, when confronted by a severe threat like HIV, people automatically make rational decisions based on the information that reaches them.

However, behavioural economics has shown that emotional reactions, cognitive biases and social pressures also shape our decision-making —and do so in fairly predictable ways. New communication strategies incorporate those insights.

The result is a profound shift in perspective for HIV prevention. Instead of trying to tackle complex challenges on behalf of people, programmes are now being designed and implemented with people. Generic, one-size-fits-all interventions are being replaced with more nuanced ones that reflect people's diverse realities, needs and preferences. And rather than simply "marketing" and "promoting" those interventions to "create demand", the emphasis is now on empathy and understanding.

This short programming brief lays out this shift. Instead of centering HIV prevention on products and services—and then persuading people to use them—the focus is now squarely on people's realities. Hence, "people-centred HIV prevention design and communication".

This document presents practical advice for designing, implementing and communicating effective HIV prevention strategies that are people centred. It also offers suggestions and frameworks for prioritizing, planning and budgeting those activities, and for tracking and interpreting the results.

The document is intended for country-level HIV programme managers and drafters of HIV strategies and funding proposals (including for Global Fund grants). They can use this brief to design and implement national HIV prevention programmes and the communication strategies that accompany them. Specifically, the document can be used to:

- develop strategic operational plans (or components of national prevention plans) that cover people-centred HIV prevention design and communication;
- formulate, plan and budget people-centred design and communication in funding proposals for international donors (like the Global Fund) and for domestic funders; and
- undertake innovative people-centred design and communication for HIV prevention.

People-centred design

People-centred design places people's needs, preferences and circumstances at the heart of the design process. It entails an iterative approach that involves empathy, the collective generation of ideas, and continuous testing to tackle complex challenges *with* service users, rather than *for* them. The focus is on the suitability, convenience and attractiveness of tools and services and on people's abilities to access them.

This document provides practical advice for designing and communicating evidence-based HIV prevention strategies that are people centred

People-centred design draws on insights from behavioural economics, which show that our decision-making does not result from purely rational calculation, but are influenced by biases, heuristics and other factors that we subconsciously rely on when faced with complex problems or incomplete information.

By incorporating insights and guiding principles from people-centred design and behavioural economics, they can now design HIV interventions that are scientifically sound, as well as psychologically informed, culturally resonant and practically appealing to the people they are intended to benefit.

HIV prevention communication

Prevention communication can be conducted in a variety of ways – ranging from one-to-one and small group interpersonal interactions (including peer outreach and counselling) to community-level interventions, mass media campaigns or, in recent years, virtual interventions that include interactive engagement via social media and other Internet-based platforms and channels.

Interpersonal interventions that encourage specific actions (e.g. taking an HIV test) or develop certain skills (e.g. condom use) are most likely to be effective. They work best when coupled with other prevention components and they require ongoing reinforcement. Like peer outreach activities, they tend to be time-consuming and costly, making them best suited for people who are at high risk of acquiring HIV.

Community mobilization and empowerment approaches often combine several interventions and tend to be focused on a particular geographical area or setting (e.g. a workplace). The aim is to foster a sense of shared belonging and confidence to act.

Mass media campaigns offer the advantages of scale and the ability to frequently repeat core messages. They can be useful for basic, "headline" messages, but on their own they are not sufficient to achieve sustainable change in behaviour.

Virtual and online interventions are evolving rapidly and now include artificial intelligence-enabled chatbots that simulate human conversations and can facilitate referrals to other prevention services. They can be tailored and focused, and they offer users greater privacy and confidentiality in judgment-free spaces (with less risk of being exposed to stigma and discrimination). However, these models are not accessible to everyone, everywhere: internet access, smartphone ownership and affordability are crucial factors.

Practical guidance for people-centred HIV prevention design

The processes of people-centred HIV prevention design can be grouped into several phases. The main document describes the various activities and tools that can be used and provides practical examples (Sections 3 & 4).

- Phase 1 focuses on clarifying the situation from the perspective of affected persons, through in-depth interviews, ethnographic studies/observation, focus group discussions and stakeholder mapping.
- Phase 2 involves making sense of those insights and clearly defining the challenges.
- In Phase 3, potential solutions are generated by drawing on diverse perspectives and stimulating out-of-the-box thinking.
- For Phase 4, those abstract solutions are transformed into tangible prototypes that can be tested and improved.
- In Phase 5, those prototypes are presented to actual prospective users for feedback and improvement.

Once a solution has been tested and refined through multiple iterations, it can be scaled up for wider implementation, in Phase 6.

Measuring success

Since these strategies can absorb substantial proportions of HIV prevention budgets, it is important to monitor and evaluate them. That requires output and coverage indicators to track the extent and efficiency of implementation, and outcome indicators to track effectiveness and results.

By using people-centred metrics, programme managers can gain a richer understanding of whether the interventions resonate with people, foster sustained behaviour change and make tangible contributions to HIV prevention. The programming brief proposes a number of specific indicators and metrics for measuring and interpreting results (Section 5).

Considerations for prioritization, planning and budgeting

Funding is a major constraint for health communication and the attention of audiences is also limited. Prioritization is therefore essential. This document identifies the assumptions that can guide prioritization.

When prioritizing activities, we should consider both scalable and intensive communication options. Prioritization does not necessarily entail choosing one approach over the other – it's about selecting the most suitable modalities for a given population and topic. The programming brief presents an illustrative matrix for prioritizing and selecting the most suitable options, along with a check list for step-by-step planning and budgeting, and a set of examples of cost-saving, sustainable communication strategies for HIV prevention (Section 6).

The brief also promotes a differentiated approach, by balancing intensified support for the most vulnerable populations while ensuring that the essentials of prevention communication reach everyone who needs them.

The push to end AIDS as a public health threat is at a turning point. The numbers of people acquiring HIV are not decreasing quickly enough, funding for HIV is under intense pressure, and prevention programmes are being disrupted by budget cuts.

People-centred prevention design and communication can enable HIV planners and programmers to reach new levels of effectiveness, sharpen resource allocation decisions, and build programmes and communication strategies that are empowering, impactful and sustainable.

HIV prevention information brochures

1. Introduction

Ending AIDS as a public health threat requires reducing new HIV infections at a much faster rate than is currently the case. New HIV infections are increasing in many countries and drastic reductions in funding and other resources for HIV are badly disrupting HIV prevention programmes, including in countries that were making steady gains against the pandemic.

Reducing new infections by over 90% requires that at least 95% of people who need HIV prevention options can access and use them. For that to happen, people have to understand their HIV risk, know how best to protect themselves from HIV, and want to access and use suitable prevention tools services. That can only be achieved if HIV prevention strategies reflect and address the different prevention-related needs and experiences of individuals.

This programming brief responds to that challenge. Based on best practices and lessons learned, it presents a practical approach for designing and implementing effective, evidence-based and **people-centered design and communication strategies for HIV prevention**.

The core objective is to make HIV prevention genuinely *people-centred* by basing it on the perspectives and circumstances of potential users of prevention tools and services and by putting them at the heart of strategy design.[1]

In such an approach, HIV prevention strategies become more effective by being more empathetic, inclusive and tailored to the lived realities of the people they are intended to serve. They go beyond generic, one-size-fits-all interventions and use more subtle, differentiated approaches that draw on insights from people-centred design and evidence from behavioural sciences.

These approaches are more amenable to prioritization, more adaptable to evolving risk behaviours and epidemic realities, and more customizable to different policy and institutional environments and programming capacities. They are also timely and necessary, given the severe impact of funding cuts for HIV programmes, the generally stagnant uptake of prevention options, and ongoing structural barriers that hinder effective and equitable delivery of services.

Young woman distributing information brochures to peers

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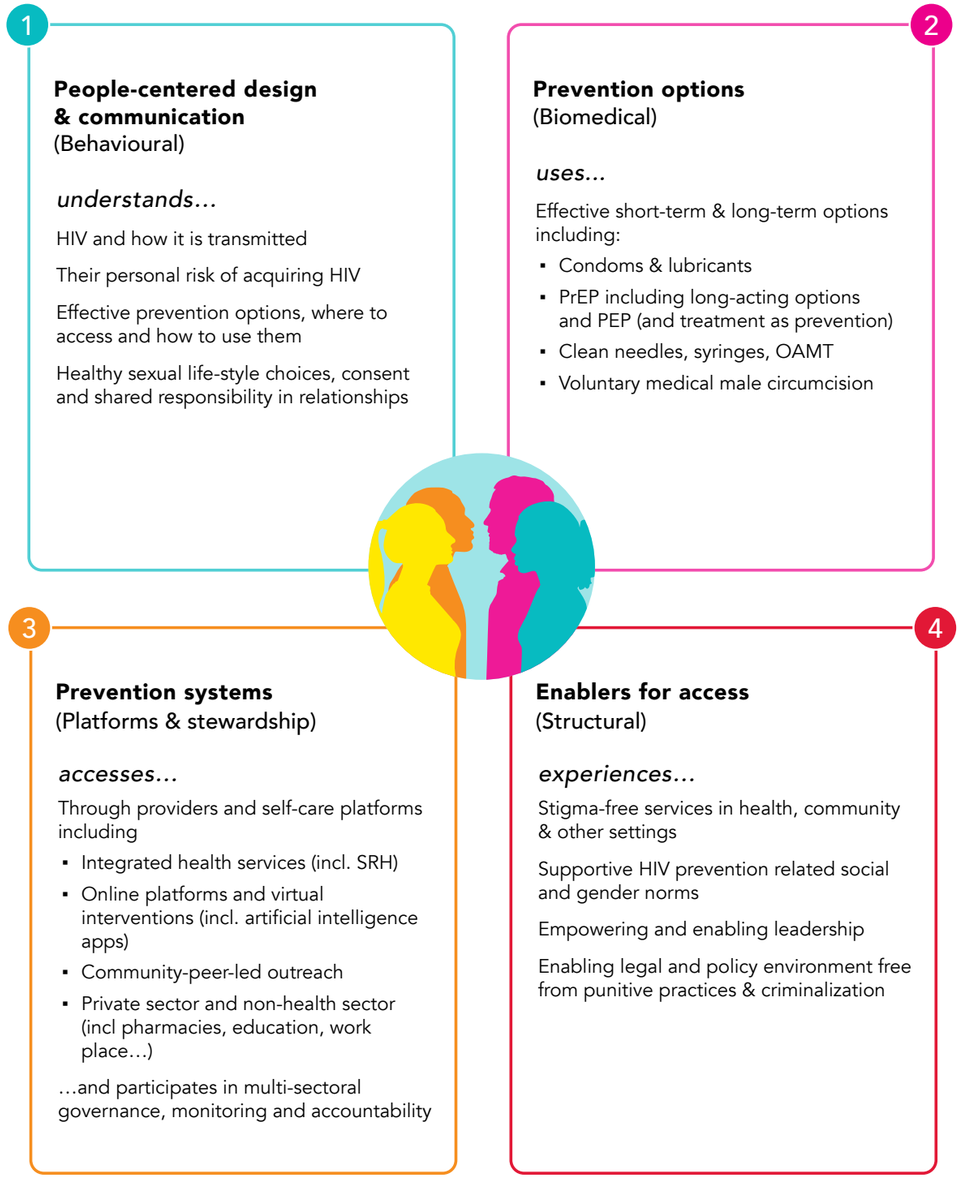
1 This approach aligns closely with the principles of the Greater Involvement of People Living with HIV/AIDS (GIPA), which prioritize the meaningful involvement and leadership of the people who are most affected by HIV.

The four dimensions of people-centered HIV prevention

People-centered prevention encompasses four interconnected components. This briefing document focuses on the first (behavioural) component: **people-centered design and communication**.

Figure 1. Four dimensions of people-centred HIV prevention*

A person making choices …



* Based on the HIV Prevention 2030 Global Access Framework (forthcoming)

People-centered design and communication recognizes that understanding is the foundation of effective HIV prevention. When people understand how HIV is transmitted, they can evaluate their risk and decide which prevention methods are best suited to their needs. This extends also to cultivating a deeper understanding of sexual consent and shared responsibility in relationships. At the same time, prevention services and tools must be designed and provided in ways that respond to people's different circumstances, needs and preferences.

The other main components of HIV prevention pertain to choice, enabling environments and delivery platforms.

Choice of effective prevention options. Effective prevention requires choosing the best-suited options. Biomedical interventions cover a range of short- and long-term options that can be tailored to individual needs and preferences. They include condoms, lubricants, oral and long-acting pre-exposure prophylaxis (PrEP), post-exposure prophylaxis (PEP), clean needles and syringes, opioid agonist maintenance therapy, voluntary medical male circumcision, and more. The emphasis is on people choosing the most suitable and effective options for them, rather than on increasing the overall coverage of specific interventions. Choice also entails deciding whether or not to have sex, negotiating the terms of that decision (e.g. condom use) or asserting the decision (e.g. not to have sex).

Enablers for accessing and using HIV prevention. Effective prevention requires the removal of obstacles that stop people from accessing and using the tools and services they need. Structural interventions can help eliminate stigma in healthcare and community settings, promote supportive social and gender norms, and reform or remove obstructive laws and regulations. If successful, those efforts can result in environments where individuals feel safe and respected and are motivated to seek and use prevention services and tools.

A mix of suitable access platforms. A wide range of service delivery platforms is needed. This can be achieved by, for example, integrating HIV prevention into primary healthcare and sexual and reproductive health services; expanding community- and peer-led service delivery (especially for people who belong to key populations); introducing telehealth and other "virtual" service platforms; and offering artificial intelligence-enabled tools that can support self-care prevention models.

Condom dispenser located in a HIV "hotspot": Non-health access platforms can reach people where they live, work or socialize.

What makes people-centred HIV prevention design and communication so important?

Historical context

HIV prevention strategies have evolved over the decades, building on lessons and new insights. Initially, the Information, Education and Communication (IEC) approach focused on changing people's behaviours by disseminating information and increasing their knowledge about HIV transmission and prevention *(1)*. This often resulted in generic messages that did not necessarily resonate across different cultural and socioeconomic settings. A reliance on the assumption that more information and knowledge would automatically foster the desired behaviour changes ignored the many psychological, social and economic circumstances that shape people's behaviours and decisions.

Earlier approaches lacked a sense of "ownership" and meaningful engagement

As prevention strategies evolved, the emphasis shifted to "combination prevention", which brought together biomedical, behavioural and structural tactics. This more holistic approach recognized the complexities of HIV prevention and went beyond simply trying to change individual behaviours. Yet even this method sometimes fell short when interventions operated in isolation, which led to "disconnects" between the tools and services that were available, and the ones individuals were actually inclined to use.

Afterwards came a heightened emphasis on "demand creation". Here, campaigns and community mobilization were used to spark interest in HIV prevention and in using prevention services and tools. Although these initiatives initially increased engagement, they sometimes relied too heavily on generic marketing tactics that neglected the diversity of people's lives. In some cases, products were promoted without a solid understanding of the varied needs and circumstances of the people they were meant to benefit.

The paradigm shift

Although each prevention approach had its strengths, many did not fully engage with the diversities and nuances of human behaviour, nor did they sufficiently address people's different needs. That gradually led to a recognition that the earlier approaches had lacked a sense of "ownership" and meaningful engagement for the people and communities they were intended to benefit. In addition, behavioural science was debunking the assumption that people always make rational decisions based strictly on available information, by showing that cognitive biases, emotions and social pressures significantly affect decisions *(2)*.

A profound shift towards empathic, people-centred approaches is now underway. Rather than simply "marketing" and "promoting" interventions, the emphasis is on understanding and empathizing with people's different needs, circumstances and preferences. Instead of one-size-fits-all mass communication, the preference is for meaningful dialogues that can encourage healthy choices.

Those improvements in programme design are being enriched by incorporating people-centred design principles and insights from behavioural economics. People-centred design seeks to address individuals' needs by designing products, services and systems in ways that recognize the challenges they experience and the different preferences they hold. The aim is to develop interventions that genuinely resonate with people, serve their needs and can have a lasting impact.

This approach hinges on the principle that HIV prevention is a human right, and it aligns with World Health Organization's (WHO) people-centred healthcare framework *(3)* and the "Positive health, dignity, and prevention" concept. Everyone should have access to effective prevention, testing and treatment options that match their personal preferences and circumstances.

A more robust HIV prevention response requires empowering individuals with the knowledge and abilities to make choices that fit their circumstances and needs. It also requires engaging them and

Engagement through mobile phone technology

their communities as genuine partners and tackling underlying issues like stigma, social inequities, gender inequality and obstructive laws. Communities help deliver HIV and other health services and they play key roles in tailoring stimulating demand for those services *(4)*.

Who is this document for, and how can it be used?

This briefing document is intended for country-level HIV programme managers and drafters of HIV strategies and funding proposals (including for Global Fund grants). It can be used for designing and implementing national HIV prevention programmes and the communication strategies that accompany them. Specifically, the document can:

- Support countries in developing strategic operational plans (or components of national prevention plans) that cover people-centred HIV prevention design and communication, including their objectives, approaches and activities;
- Assist countries in formulating, planning and budgeting people-centred design and communication in funding proposals for international donors (like the Global Fund) and for domestic funders; and
- Support countries in devising innovative ways to undertake people-centred design and communication for HIV prevention.

2. The value of people-centred HIV prevention design and communication

What is it and what should it achieve?

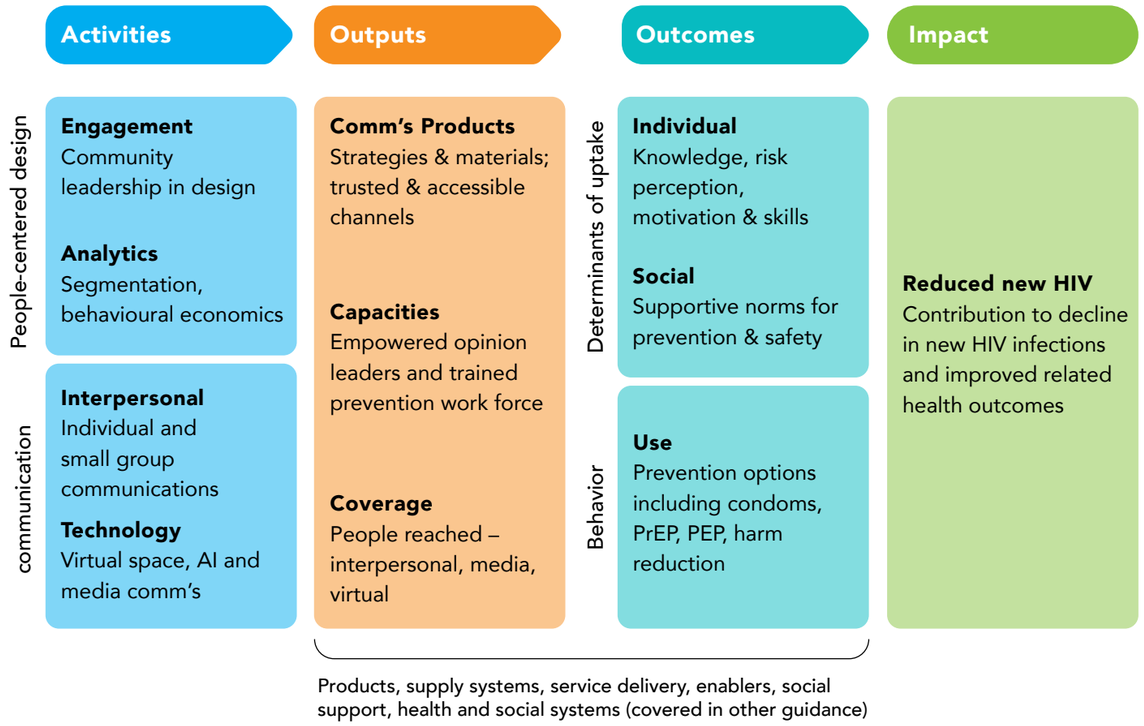
People-centred HIV prevention design and communication is a framework for using inclusive, rights-based prevention methods that prioritize individuals over generic approaches when designing and delivering HIV prevention activities.

The emphasis is on providing accurate, relevant information to a wide range of people so they can assess their own risk and take preventive measures that fit with their needs, preferences and life circumstances. Crucially, this approach incorporates the voices and experiences of potential beneficiaries.

The goal is to reduce HIV incidence by designing and scaling highly effective, user-centred HIV prevention programmes and communication strategies that promote sustained uptake of interventions (Figure 2).

The "handsup for #HIVprevention" campaign in Tajikistan

Figure 2. The "theory of change" for people-centred design and communication



Main elements of people-centred design

Insights from people-centred design and behavioural economics are useful for frameworks and methods that go beyond general assumptions to truly understand – and then influence – people's HIV-related behaviours.

People-centred design puts people's needs and circumstances at the heart of the process

People-centred design is a problem-solving approach that places the needs, desires and circumstances of potential service users at the heart of the design process. It entails an iterative approach that involves empathy, problem definition, the collective generation of ideas, prototyping and continuous testing to tackle complex challenges *with* users, rather than *for* them *(5)*.

Key principles of people-centred design for HIV prevention include:

- **Empathy.** Go beyond superficial understandings to immerse oneself in users' experiences, circumstances, challenges and aspirations. This can involve ethnographic research, in-depth interviews and other qualitative research to uncover unobvious needs, preferences and motivations.
- **Co-creation.** Actively involve priority populations (for example, adolescent girls and young women, sex workers or gay men and other men who have sex with men) in the design process. This ensures that solutions are relevant, acceptable and realistic.
- **Iterative development.** Recognize that initial solutions are rarely perfect, and use quick prototyping and continuous testing with prospective users for feedback and refinement. This "build-measure-learn" loop minimizes risk and advances solutions.
- **Focus on user experiences.** The perspectives of potential users take precedence. The focus is on the suitability, convenience and attractiveness of tools and services and on people's abilities to access them.

People-centred design draws on behavioural economics, an interdisciplinary field that combines insights from psychology and economics to understand how cognitive, emotional, cultural and social factors influence individual decision-making. The evidence shows that human decisions are often irrational yet also predictable. Rather than being based on purely reasoned calculations, our decisions tend to be influenced by biases and heuristics (mental shortcuts that help individuals to quickly make decisions and solve problems). We subconsciously rely on those methods, especially when faced with complex problems or when incomplete information is available.

Key behavioural economics principles for HIV prevention include:

- Defaults. People tend to prefer pre-set or default options. Example: Shifting from an "opt-in" HIV testing approach (where individuals must actively choose to be tested) to an "opt-out" approach in healthcare settings (where testing is offered routinely unless explicitly declined) can significantly increase testing rates.
- Framing. How information is presented significantly influences choices. Example: Framing PrEP as "empowerment for sexual freedom" might resonate more than "disease prevention." Highlighting the immediate benefits of PrEP (such as peace of mind, the ability to remain sexually active) can be more persuasive than focusing on its long-term health benefits (e.g. avoiding HIV infection).
- Social norms. Individuals are heavily influenced by the perceived behaviours and beliefs of their peers and social groups. Example: Communication campaigns that highlight that "most young people in this community talk about HIV prevention with their partners" can encourage more open dialogue. When peer educators are frank about their PrEP use, other people may be more likely to consider using this prevention method.
- Loss aversion. Most people have a strong psychological tendency to prefer avoiding losses over acquiring equivalent gains. Example: Highlighting the potential loss of good health, relationships or future opportunities due to HIV can be more motivating than emphasizing the gain of being HIV-negative.
- Present bias. We also tend to overvalue immediate rewards and costs over future ones. Example: For HIV testing, emphasizing the immediate benefit of "knowing your status today for peace of mind" can be more effective than focusing strictly on long-term health benefits.
- Choice overload. Too many options can stand in the way of deciding. Example: Presenting a person with too many different HIV prevention options at once can be overwhelming; simplifying the choices or guiding the person through a decision-making process can avoid decision paralysis.
- Scarcity. People tend to desire things more when they appear to be scarce. Example: While ethically complex, some campaigns might subtly highlight the value of certain prevention services as a limited opportunity (for example, during specific campaigns).

By incorporating insights and guiding principles from people-centred design and behavioural economics, HIV programme planners and managers can go beyond intuitive assumptions about what works best. They can design interventions that are scientifically sound, as well as psychologically informed, culturally resonant and practically appealing to the people they are intended to protect.

HIV prevention communication – key types of interventions

Since the early decades of the AIDS pandemic, communication – whether interpersonal or via mass media – have been vital for HIV prevention.

Prevention communication has been grounded in the assumption that when a person receives, trusts and understands accurate and relevant information about HIV, their knowledge improves, as does their understanding of their own HIV risk. When that happens in an enabling (legal, social, normative and economic) context and when further support is available, the person can be prompted to engage with prevention services and use prevention tools. That desired chain of reactions, however, is highly contingent on other factors and is often short-lived.

Prevention communication can be conducted in a variety of ways – ranging from one-to-one and small group interpersonal interactions to community-level interventions, mass media campaigns or, in recent years, interactive engagement via social media and other Internet-based platforms and channels.

Interpersonal communication

Interpersonal (individual or small group) interventions have been used for decades in HIV prevention. Based on models used for smoking cessation and heart disease prevention, these interactions can be effective for developing more accurate risk perception, influencing attitudes and increasing a person's motivation to use HIV prevention tools and services *(6)*.

Evidence reviews show that interventions which encourage specific actions (e.g. taking an HIV test) or that develop skills (e.g. for condom use) are most likely to be effective. However, the changes may not persist over time: like most other HIV prevention interventions, they require ongoing reinforcement and should be coupled with other prevention components *(7)*.

Effective interpersonal communication requires credible, trained facilitators (e.g. peer counsellors, community health workers or community-based outreach workers) and it often entails multiple sessions, with the interactions "customized" to people's circumstances and needs. This tends to be time-consuming and costly, making it best suited for people who are at elevated risk of acquiring HIV.

Peer outreach

Peer outreach activities involve one-on-one or group conversations and can be used to reach people with information and other support in social settings or at "drop-in" centres. Since these activities tend to be labour-intensive and expensive, they are best suited for people who are at high risk of acquiring HIV. Peer outreach interventions are particularly relevant for key populations, who in many settings primarily trust their peers due to widespread stigma. Rather than using these approaches in isolation, their impact may be greater if they are combined with other ongoing programmes (e.g. condom promotion and regular screening for sexually transmitted infections) that are linked to referral pathways.

Counselling

Similarly, counselling involves a counsellor or health professional who engages intensively with individuals or small groups, either in single or across multiple sessions—making it more personally relevant than mass media campaigns. Active interventions that involve participation and practical scenarios tend to be more effective than passive ones (e.g. lectures) and the impact is enhanced with they are combined or linked with community-wide prevention activities *(7)*. HIV prevention counselling is usually integrated into service delivery. A cost-efficient way to increase the reach of prevention counselling is guidance to health workers to offer people HIV prevention information and options such as condoms and PrEP.

Community mobilization for HIV prevention

HIV prevention communication in the education sector and elsewhere

The education sector has an important role in HIV prevention communication, especially in settings with elevated HIV incidence. The long-term goal is for all schools to provide comprehensive sexuality education, including HIV prevention. However, where HIV incidence is high, and even in the absence of full implementation of comprehensive sexuality education, countries can take effective action. Knowledge about effective prevention methods and tools and where young people can access them can be shared as part of regular teaching.

There are examples of successful in-school campaigns for HIV prevention. For example, in randomized control trials in Botswana and Kenya, a simple campaign involving one short session taught young women about the increased health and other risks they face when having sex with significantly older partners.* Both trials found positive effects on reported behaviours and, unusually for communication interventions, biological outcomes in the form of reduced rates of teenage pregnancy.

If provided through teachers, these kinds of campaigns can be provided at relatively low cost.

Other sectors can also integrate HIV prevention communication of different types—typically interpersonal communication, but also leadership advocacy—into workplace and staff health programmes. The programmes can cover issues affecting staff, including HIV prevention for key and priority populations. For example, in mining companies, where men are often separated from their families, programmes can include HIV education and access to prevention services. Programmes for uniformed services can train staff on supportive norms for preventing HIV and other sexually transmitted infections and for having non-discriminatory and respectful interactions with communities.

* Angrist N, Matshaba M, Gabaitiri L, et al. Revealing a safer sex option to reduce HIV risk: a cluster-randomized trial in Botswana. BMC Public Health. 2019 May 21;19(1):610. doi: 10.1186/s12889-019-6844-8; Dupas P. Do teenagers respond to HIV risk information? Evidence from field experiments in Kenya. Am Econ J: Applied Econ. 2011;3(1):1–34.

Condom demand generation going online.
Credit: FHI360. Going Online. Toolkit to Design Social Media Campaigns that Promote Condom Use.

Community mobilization

Community mobilization and empowerment approaches recognize that people's behaviours and choices are influenced by their social environments and by the perceptions of the peers and communities with whom they associate. Structured interpersonal communication approaches, such as Stepping Stones and SASA!, can be effective for changing behaviours. Such approaches have been used at scale in countries with relatively limited resources, but they can be quite resource-intensive and are most viable in settings with high HIV incidence.

These activities often combine several interventions and tend to be focused on a particular geographical area or setting (e.g. a workplace). The aim is to foster a sense of shared belonging and the confidence to act. People who feel rooted socially and who trust fellow community members tend to have greater confidence to take informed decisions *(7)*. These approaches have been associated with increased condom use *(8)* and improved HIV treatment outcomes *(9)* among sex workers, and reduced harmful gender norms among men, for example *(10)*.

Leadership advocacy

Communication activities that enlist trusted leaders can be used to increase awareness and encourage changes in behaviour. The approach is based on "diffusion of innovation" theory which asserts that advice from influential figures can encourage people to seek information and consider changing certain behaviours. This is more likely to happen when the advocacy supplements other prevention efforts. These leadership figures can include faith-based leaders, local community leaders, sports and entertainment celebrities, "social influencers" etc.

Technology-based approaches

Technology-based communication uses traditional mass media (e.g. print media, radio and television) and the Internet to convey information that is largely generic and undifferentiated. Increasingly, however, much more tailored and direct engagement with individuals is possible through virtual interventions (e.g. telehealth), social media platforms and artificial intelligence-based interactions, some of them involving synthetic or virtual "humans" (e.g. chatbots).

Mass media

Mass media offer the advantages of scale and the ability to frequently repeat core messages. Sustained mass media campaigns have been credited with contributing to increased HIV knowledge, short-term increases in HIV testing and temporary reductions in HIV-related stigma. However, these campaigns, on their own, are not enough to achieve sustainable changes in behaviour *(7)*. Since these channels offer wide access to the public (or large subpopulations like young people or women), they can be useful for basic, "headline" messages. Over the past decade especially, Internet-based media have increasingly supplanted radio, television and print media as core sources of news and information.

Virtual interventions

There is great scope for using virtual and online prevention-related interventions *(11)*. The options range from simple, phone-based communication (e.g. voice and text messaging) to more adaptable and differentiated Internet-based options (e.g. via social media platforms *(12)*, messenger apps and other smartphone apps) that allow for mHealth or telemedicine activities. The latter have been shown to boost efforts to prevent vertical transmission of HIV and increase early infant diagnosis among children who have been exposed to HIV *(13)*.

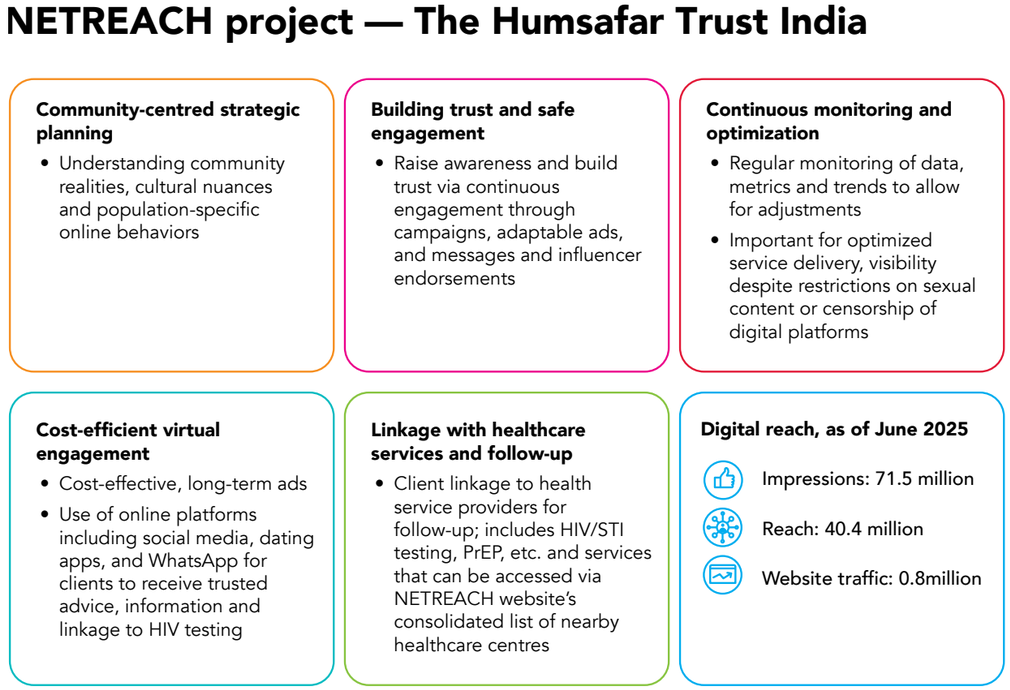
The NETREACH project in India

The Humsafar Trust, an LGBTQ community-based organization, has been implementing Project NETREACH, a pan-India project with support from NACO and the Global Fund. NETREACH uses a virtual HIV intervention platform that links people to information on HIV and sexual health, and to HIV testing. The entry point is through advertisements on social media and other digital platforms, which steer users to WhatsApp where they can pose questions and seek information.

NETREACH is successful in reaching at-risk populations and in providing curated information in a discreet, confidential way. Factors that were considered in planning and implementing NETREACH include:

- Community-center strategic planning. Experiences and evidence from previous HIV prevention initiatives conducted by the Humsafar Trust in India were valuable for understanding community realities, population needs and online behaviours. They were also useful for grasping regional and cultural nuances, including around language use.
- Cost-efficiency and confidentiality. Data-driven advertisements on social media platforms and data apps link users directly to WhatsApp where they can pose questions and seek information. The WhatsApp platform also links users to appropriate HIV testing and other services, as needed. This virtual space is safe and anonymous.
- Trust and empathy. The approach prizes trust and understanding, which it cultivates by using sustained campaigns and advertisements, and by enlisting influencers and public figures.
- Continuous monitoring and optimization. Metrics and trend analyses can be used to inform adjustments, guide scale up efforts, and test relevance. Artificial intelligence use, behavioural insights and real-time data can also be useful. Continuous monitoring and adaptation are important to maintain a presence in search results and to adapt to possible restrictions on sexual content on social media/digital platforms.
- Linkage with healthcare services. The NETREACH website links users with health service providers for next steps such as HIV testing via a consolidated list of service providers. It is important to collaborate with national programmes and with local healthcare services to ensure continuity of care.

Figure 3. Features of the NETREACH project in India



Digital technologies are evolving rapidly and now include chatbots that simulate human conversations and can facilitate referrals to other prevention services. The interventions can be tailored and focused, and they offer users privacy and confidentiality in judgment-free spaces (with less risk of being exposed to stigma and discrimination). WHO has developed guidance with recommendations for digital health interventions *(14)*.

Digital campaigns can reach people for a fraction of the cost of traditional outreach activities, making them highly cost-effective. In addition, they are highly adaptable and allow for enhanced monitoring (based on real-time data and metrics), making them ideal for evidence-based design,

audience targeting and adaptive messaging.

Studies have shown that interactive virtual or digital interventions can be at least as effective as face-to-face interventions for shaping HIV knowledge and prevention behaviours *(15)*. For example, mHealth HIV testing interventions have increased testing uptake among gay men and other men who have sex with men and other key populations *(16)* and have improved HIV treatment adherence among people with HIV in Asia *(17)*.

Artificial intelligence-enabled tools – like synthesized chatbots, virtual check-ins and personalized digital reminders – can support HIV prevention models *(18–21)* and they are being used in a range of settings, including in Ukraine (see box) *(22)*. In Malaysia, a web-based artificial intelligence chatbot has shown high usability in providing clinical information on HIV testing, PrEP and mental health services for gay men and other men who have sex with men *(23)*.

These models allow for interactive, two-way conversations that offer privacy and can shield people against the stigma and discrimination they might encounter during in-person interactions. However, it is vital to ensure confidentiality and security in these encounters to protect sensitive information and maintain people's trust, especially in contexts were discrimination or legal barriers exist.

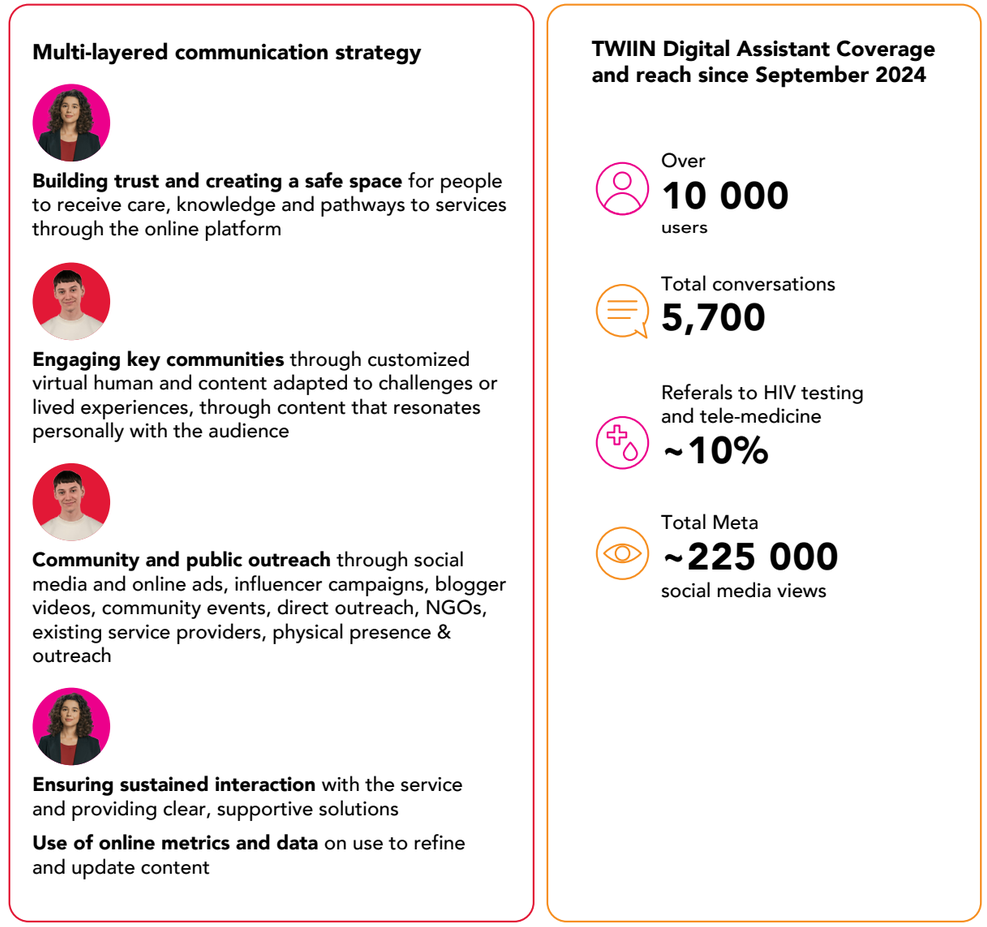
In addition, these communication models are not accessible to everyone, everywhere: internet access, smartphone ownership and affordability are crucial factors. In 2024, about 70% of people globally were using the Internet, but only about 27% of the population in low-income countries was online *(24)*. Whereas four in five people aged ten years and older globally owned a mobile phone 2024, a little over half of those in low-income countries owned one *(25)*.[2] Cost of data and infrastructure weaknesses also exclude many people.

While these virtual interventions can complement and enhance existing health system functions, they do not replace the basic foundations of health systems, such as health workers, financing and access to essential medicines. Community engagement and participation in designing virtual interventions are essential to ensure that the services are suitable and relevant. Artificial intelligence-based models are only as good as the data going into them: the information should be accurate and regularly checked and updated *(26)*.

It is important to ensure confidentiality and security in online spaces to protect sensitive information and maintain people's trust

2 This reached 95% in high-income countries, in contrast to low-income countries where ownership levels were about 56%.

Figure 4. Features of the TWIIN digital assistant



The TWIIN digital health assistant in Ukraine

TWIIN offers artificial intelligence-powered, interactive and multilingual dialogue capabilities on HIV and sexual health topics with digital assistants that resemble humans, each with a distinct profile and "life experience". The model also provides assistance to users to navigate related health services.

Developed originally in the Ukraine by the Alliance for Public Health, the service is currently expanding to other countries in eastern Europe and central Asia. It can operate in different languages and offers voices that mimic natural speech and emotional cues. The content and faces used can be adapted for different demographics and cultural sensitivities. Artificial intelligence is used to analyse users' requests and retrieve the most relevant information from a dedicated knowledge base which can be updated and expanded. The low-cost, "in-person" and 24/7 support makes TWIIN especially useful in low-resource and humanitarian settings where access to healthcare can be very limited.

TWIIN can be used as part of a multilayered communication strategy (see Figure 4) that includes the use of social media platforms, influencer engagement, partnerships with nongovernmental organizations and other service providers, and links to healthcare professionals – with the website serving as an entry point and hub.

Considerations and principles for people-centred design

When applying people-centred design and communication approaches, it is important to keep in mind the factors that can affect their impact.

- **Political will and funding.** Are sufficient political commitment and financial resources available, including dedicated staff and research budgets?
- **Openness to innovation.** Are HIV programme managers and their teams amenable to using new methodologies and iterative learning and are they willing to revisit long-held assumptions?
- **Access to skills**. Can programme teams access expertise (internal or external) on people-centred design and behavioural economics?
- **Meaningful community engagement**. Are potential beneficiaries willing and able to participate meaningfully in the co-creation processes and will their feedback genuinely be valued and integrated?
- **Ethical considerations**. Can the approach be implemented ethically, ensuring that participants' rights to consent and privacy are respected and that they are protected against harm?
- **Data utilization**. Can the information and insights generated through people-centred design and behavioural economics approaches be synthesized and translated into practical programme and communication strategies?
- **Enabling environment**. Does the broader policy and regulatory environment support the flexible implementation and adaptation of interventions?
- **Sustainability**. Are mechanisms in place to sustain successful people-centred interventions beyond initial pilot phases?
- **Self-care**. Are the activities linked to platforms and support that can facilitate self-care? (see box)

Facilitating self-care for HIV prevention

Self-care refers to a person's ability to protect their health and cope with illness, with or without the help of healthcare workers (*27*). Self-care for HIV prevention is increasingly important in a context of health worker shortages (*28*) and declining HIV funding.

Although self-care is in line with a shift away from accessing health services solely at traditional health facilities, it cannot and should not replace all services that are provided directly by healthcare providers. However, it can improve the sustainability, accessibility and acceptability of HIV prevention services, by allowing people who can manage their own healthcare to do so (*29*).

Several HIV prevention options are potentially suitable for self-care approaches, including self-testing and condom use; oral PrEP and PEP (conditional on regulatory arrangements); and voluntary medical male circumcision and injectable PrEP (which require trained providers but allow for self-care in follow-up phases).

Interpersonal (individual and small group) communication and media communication can facilitate self-care, though the biggest potential lies with virtual and artificial intelligence-based applications. WHO has developed a communication toolkit for self-care for health and well-being overall (*30*). A separate Global HIV Prevention Coalition brief outlines actions to enhance self-care for HIV prevention.

3. Practical guidance: How to do people-centred HIV prevention design

The iterative processes of people-centred HIV prevention design can be divided into several phases.

Phase 1: Empathize (deep understanding of the user)

This is the foundation. Building empathy requires going beyond assumptions and statistics to see a situation or problem from the perspective of the affected person. There are several ways to develop empathic understanding.

Activities

- **In-depth interviews**. Conduct one-on-one dialogues to explore personal experiences, beliefs, motivations, fears and daily routines related to HIV prevention. Use questions to uncover underlying sentiments and emotions.
- **Ethnographic studies/observation**. Spend time in the environments where people live, work and socially interact. Observe behaviours, sentiments and challenges (and how people respond to them).
- **Focus group discussions**. Facilitate discussions to understand group dynamics, shared norms and diverse perspectives. Focus on generating insights, not just achieving consensus.
- **Journey mapping**. Map the entire journey or process a person undertakes when engaging with a prevention service (e.g. from considering PrEP to accessing and using it, obtaining refills, etc.). Identify decision points, causes of stress and moments of satisfaction.
- **Stakeholder mapping**. Identify the actors who influence the person's prevention journey (e.g. peers, healthcare providers, family members, community figures and policymakers). Understand their perspectives and potential roles.

Tools

- "Empathy maps" are visual tools for depicting and blending insights about what people think and feel, see, hear, say and do, as well as their "pains" and "gains".
- "User personas" are fictional, but realistic representations of the key target groups, based on research. These can help teams understand the specific needs, motivations and behaviours of distinct groups of people.

HIV prevention examples

- **Understanding PrEP adherence**. Rather than assume that non-adherence is due to forgetfulness or apathy, consider using empathic research to uncover the actual reasons for discontinuing use, (e.g. fear of stigma, difficulty storing PrEP medicines discreetly, concerns about side effects, or lack of social support).
- **Barriers to voluntary medical male circumcision uptake**. Similarly, research might reveal that some men fear the procedure, are concerned about its possible effects on their sex lives, lack privacy at health facilities, have unsupportive partners, or are misinformed about the benefits.
- **Adolescent sexual health**. Research might show that adolescents prefer to get sexual health information from peers or social media rather than at health clinics, or that their parents disapprove of them seeking such information.

Phase 2: Define (synthesize insights and frame the problem)

Once you have gathered those insights, the next step is to make sense of them and clearly define the core problem(s) as seen from users' perspectives.

Activities

- **Affinity mapping.** Group together similar observations and insights from your research to identify recurring themes and patterns.
- **Synthesis of research findings.** Gather the main insights regarding users' needs and challenges.
- **"How might we" questions.** Reframe problems into actionable, open-ended questions that allow for creative solutions – for example, "How might we reduce the risk of stigma for people using PrEP?". This shifts the focus from identifying problems to exploring remedies.

Output

- Clearly expressed, user-centred problem statements – for example, "Young women feel shame and judgment when trying to access family planning services," rather than "Low uptake of contraceptives".

HIV prevention examples

- Instead of noting "low PrEP uptake among sex workers", ask "How might we make PrEP access discreet, convenient and empowering for sex workers who fear social judgment and stigma?".
- Rather than state that "people don't get tested frequently enough", ask "How might we make HIV self-testing an easily integrated, private and reassuring part of people's routine health management?".
- Move from stating that "adolescent pregnancies are high" to asking "How might we create safe spaces and trusted information sources where adolescents can openly discuss sexual health without fear of judgment?".

Phase 3: Develop ideas (brainstorm creative solutions)

Once problems have been clearly defined, the next step is to generate a range of potential solutions by drawing on diverse perspectives and encouraging "out-of-the-box" thinking.

Activities

- **Brainstorming sessions.** Facilitate sessions with diverse teams (including, importantly, from communities with elevated HIV prevalence) to produce as many ideas as possible. Emphasize quantity over quality at this stage and defer judgment.
- **Sketching/visualization**. Encourage participants to sketch ideas; visualizations help us express and understand abstract concepts.
- **Analogous inspiration.** Look for solutions in completely different areas or contexts that might offer insights (e.g. where might someone seek trusted information about diets, or with whom would they discuss a problematic relationship?).
- **Behavioural "nudge storming"**. Specifically brainstorm how behavioural economics principles (such as defaults, framing and various biases) could be applied to encourage desired behaviours.

Tools

- "**SCAMPER**". This is a creative brainstorming tool that involves Substituting, Combining, Adapting, Modifying (magnifying or minimizing), Putting to another use, Eliminating, or Reversing existing ideas.

HIV prevention examples

- **For PrEP access**, brainstorm ideas such as PrEP vending machines, online ordering with discreet delivery, peer-led PrEP distribution networks, or integrating PrEP access into existing social spaces (like youth centres and community hubs).
- **For HIV self-testing**, develop ideas for, as an example, packaging designs that can reduce the risk of stigma, or integrating functions on popular smartphone apps that allow people to interpret test results and be linked to care.
- **For partner disclosure**, develop role-playing tools, digital counselling aids or community theatre performances that enact different disclosure scenarios and strategies.

Phase 4: Prototype (build tangible representations)

Prototypes are rough, easily assembled realizations of your ideas. They can be useful to make abstract ideas tangible so they can be tested and improved. Prototypes are not intended to be a final product.

Activities

- **Low-fidelity mock-ups**. Create simple drawings, paper models or basic digital "wireframes" for services or products.
- **Storyboards**. Illustrate users' interactions with a new service or intervention.
- **Role-playing**. Act out scenarios involving the new intervention or communication strategy to identify practical challenges and opportunities.
- **Service blueprints**. Map out the front-end (which the user encounters) and back-stage (which happens behind the scenes) processes of a given service or intervention.
- **Annotation**. Emphasize that prototypes are meant to be built and tested quickly; they need not be perfect. Their purpose is to elicit feedback and provide lessons.

HIV prevention examples

- **New communication message**. Create a draft poster with new messaging and visuals, using simple design software or drawings by hand.
- **Digital appointment booking**. Sketch out a basic app interface for booking HIV testing or PrEP appointments.
- **Peer-led support session**. Outline the flow and key activities of a peer-led support group session.
- **Discreet PrEP dispensing**. Design mock packaging for PrEP or a process flow for a discreet PrEP pick-up system.

Phase 5: Test (gather feedback and iterate)

This phase involves presenting your prototypes to actual prospective users to gather feedback, learn and refine. This is not a final evaluation, but a vital learning opportunity.

Activities

- **User testing**. Observe how users interact with your prototype. Ask them to think aloud, identify what's confusing, what they like, and what they would change.
- **A/B testing (for communication)**. Present two different versions of a message or visualization to various prospective users and determine which performs better (e.g. which has higher engagement or recall).
- **Rapid feedback loops**. Incorporate feedback quickly into the prototype and test it again. This iterative cycle is crucial for improvement and refinement.
- **Observation in actual settings**. If feasible, observe how users interact with initial versions of interventions in their own environments.
- **Annotation**. Stress that this is iterative learning, not a final evaluation. The goal is to learn what works, what doesn't work, and why.

HIV prevention examples

- **Test a new communication campaign**. Show different versions of social media posts or radio jingles to focus groups, assess their comprehension and emotional responses, as well as the perceived relevance of the messaging.
- **Test a new "service flow"**. Have a small group of prospective users pass through a simulated process for accessing a new PrEP clinic and identify any hindrances, points of discomfort, etc.
- **Test an HIV self-testing kit design**. Observe individuals using a prototype self-testing kit and note confusion with the instructions, ease of use or challenges with disposal.

Phase 6: Scale (implement and monitor)

Once a solution has been thoroughly tested and refined through multiple iterations, it can be scaled up for broader implementation. However, the learning process does not stop here.

Activities

- **Roll out of refined solutions**. Implement the tested and validated interventions, services and communication strategies more broadly.
- **Ongoing monitoring and evaluation**. Continuously track key performance indicators, user feedback and behavioural outcomes.
- **Continuous learning and adaptation**. Be prepared to make further adjustments based on real-world implementation data and changing contexts. The emphasis is on continuous improvement.
- **Annotation**. Highlight the importance of continuous feedback loops even after scaling up, so the solution can remain relevant and effective.

4. Practical guidance: How to do effective HIV prevention communication

Communication is not just about transmitting messages: it's about fostering understanding, building trust, influencing decisions and enabling sustained behaviour change. Traditional mass media campaigns often suffer from:

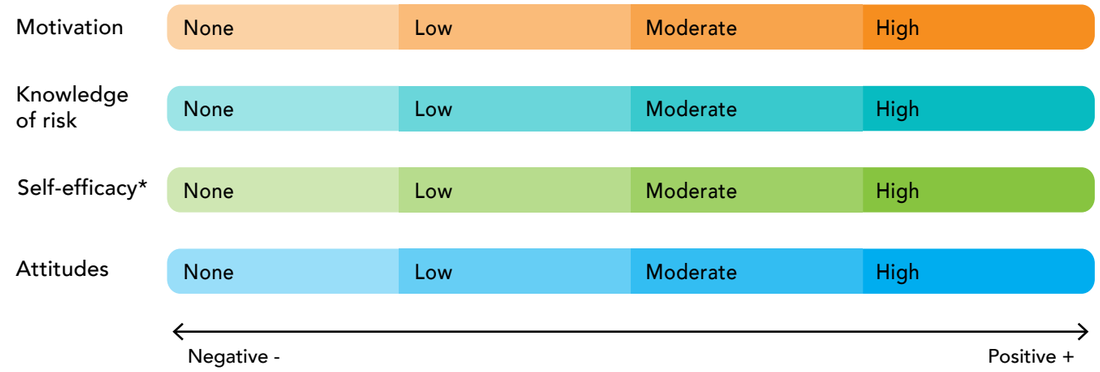
- **a lack of relevance** (due to generic messages that don't resonate with diverse audiences);
- **limited impact on behaviour** (knowledge alone is not enough to change deep-seated habits, subdue concerns or anxieties, or overcome barriers);
- **an absence of feedback** (no mechanisms for people to ask questions, share concerns or provide feedback, which leads to missed opportunities for course correction); and
- **a disregard for decision-making biases** (messages that assume purely rational decision-making often ignore how people actually arrive at decisions).

By drawing on insights from people-centred design and behavioural economics, we can transform HIV communication from one-way conversations into dynamic, two-way dialogues.

From information to engagement: Tips for effective prevention communication

Through analysis of the factors that shape the uptake of HIV prevention services, people-centred design and behavioural economics can provide a blueprint for effective and sustainable prevention communication strategies (see Figure 5).

Figure 5. Market segmentation analysis for HIV prevention – factors influencing uptake of HIV prevention



*Self-efficacy is the belief in one's ability to take actions and influence events

Tailored messaging (people-centred design)

- **Base messages on user personas**. Develop specific messages for distinct segments (e.g. young women in urban settings, male migrant workers, rural married couples) using language, visuals and stories that relate to their lived experiences, values and concerns (see Table 1).
- **Address perceived barriers**. Craft messages that address the identified barriers (e.g. "PrEP is for everyone, regardless of your relationship status" to counter stigma; or "It's normal to feel worried, but here's how other people handled it" to help people cope with anxiety about taking an HIV test).

Table 1. Population-specific analysis of factors – illustrative examples

Populations	Motivation	Knowledge & Risk perception	Self-efficacy ability	Attitudes, societal and cultural norms
Young women (15-24 years)	40% high motivation, focus on 30% with low motivation	Focus on 20% with inadequate knowledge, focus on 30% with inadequate risk	60% with high self-efficacy, focus on 30% with low self-efficacy	Stigma associated with adolescents accessing sexual health services Age-and power difference in relationships Gender norms around consent and negotiating safe sex & prevention use
Young men (15-24 years)	40% high motivation, focus on 60% with low motivation			
Adult women (25+)	60% high motivation, focus on 20% with low motivation	Focus on 30% with inadequate risk perception	40% with high self-efficacy, focus on 20% with low self-efficacy	Ability to negotiate safety in relationships; gender norms in relation to safe sex
Adult men (25+)	20% high motivation, focus on 60% with low motivation		50% with high self-efficacy, focus on 30% with low self-efficacy	Norms around men not being weak /seeking health care
Sex workers	30% high motivation, focus on 10% with low motivation	Focus on 15% with inadequate risk perception (young women selling sex)	80% with high self-efficacy, focus on 10% with low self-efficacy	Collective norms around safety (norm to insist on protection with all clients), norms around protection from violence; Stigma & negative norms among law enforcement and health workers
Men who have sex with men	20% high motivation, focus on 60% with low motivation	Focus on 20% with inadequate risk perception (younger MSM)	80% with high self-efficacy, focus on 10% with low self-efficacy	Norms around safety in Chemsex; Stigma & negative norms among law enforcement and health workers
People who inject drugs	25% high motivation, focus on 30% with low motivation	Focus on 30% with inadequate risk perception (younger PWID)	60% with high self-efficacy, focus on 30% with low self-efficacy	Gender norms on safety for women who inject drugs; Stigma & negative norms among law enforcement and health workers
Transgender people	30% high motivation, focus on 10% with low motivation	Focus on 30% with inadequate risk perception (young trans women)	75% with high self-efficacy, focus on 10% with low self-efficacy	Stigma & negative norms among law enforcement and health workers; Norms around protection from violence

Table 2. Population-specific analysis of relevant channels for different audiences

	Communication channels			
Populations	**Traditional mass media (TV, radio, print media)**	**Digital mass marketing (social media, email, website)**	**Virtual outreach and counselling**	**Interpersonal (peer-led outreach, structured group interventions, counselling)**
Young women (15-24 years)	Relevance in rural settings with limited internet Potential for closing knowledge gaps on new prevention options and maintaining risk perception	Wide reach in urban/peri-urban - Potential for closing knowledge gaps on new prevention options, where to access and maintaining risk perception	Moderate to high reach in urban peri-urban: Referring to access options, supporting decision-making on choice of prevention options	Wide reach of schools and moderate for higher education Potential for closing knowledge gaps on new prevention options and maintaining risk perception
Young men (15-24 years)				
Adult women (25+ years)	Wide reach Potential for closing knowledge gaps on new prevention options and maintaining risk perception, (gender and cultural) norms around safe sex	Moderate to high reach in urban/peri-urban Potential for closing knowledge gaps on new prevention options and maintaining risk perception, (gender and cultural) norms around safe sex		Moderate to high reach through health workers Supporting decision -making on choice of prevention options
Adult men (25+ years)				Moderate reach through specific workplaces (mines, transport, uniformed personnel)
Sex workers	Not suitable (key populations can access general mass media, but cannot be specifically reached through them)	Moderate to high reach in urban/peri-urban Potential for closing knowledge gaps on new prevention options, where to access and maintaining risk perception	Moderate reach, after enrollment in KP programs, higher reach for virtual follow up counselling in urban/peri-urban settings: Referring to access options, supporting decision-making on choice of prevention options	Reach depending on resources Key modality for individuals among KPs with greater vulnerability and support needs (low risk perception, low self-efficacy, young KPs)
Men who have sex with men				
Transgender people				
People who inject drugs		Low to moderate reach		
Prisoners				

Highly relevant Partially relevant Not relevant

Channel optimization (people-centred design)

- **Reach people where they are**. Identify the most trusted and frequently used communication channels for specific groups (e.g. social media for youth, community radio for rural areas, peer networks, trusted religious leaders, local health workers).
- **Multi-channel approach**. Use a combination of channels to reinforce messages and reach different sections of populations (see Table 2).

Narrative and storytelling (people-centred design & behavioural economics: salience, clarity)

- **Relatable stories**. Use compelling personal stories from people who have successfully adopted prevention behaviours. Stories are more memorable and resonant than "dry" facts.
- **Emotional connection**. Appeal to positive emotions like hope, empowerment, peace of mind or protecting loved ones, rather than stoke anxieties or rely on statistics.

Clear and simple call to action (behavioural economics: reducing "friction")

- **Make it easy**. Clearly state what you wish people to do, how and where (e.g. "Visit your nearest health centre for a free HIV test today", or "Text 'PrEP' to #12345 for discreet delivery options").
- **Keep it simple**. Avoid jargon, complex instructions and too many choices.

Feedback mechanisms (people-centred design)

- **Two-way dialogues**. Create opportunities for people to ask questions, provide feedback and share their experiences (e.g. Q&A sessions, online forums, community feedback boxes, dedicated hotlines). This fosters trust and allows for real-time adaptation.
- **The population sizes and prevention targets** allow for determining the numbers of people to be reached via the various channels (see Table 3).

Trusted messengers (behavioural economics: social norms, credibility)

- **Peer-to-peer communication**. Use the legitimacy of trusted peers, community leaders or local influencers to deliver messages; people are more likely to be influenced by those they know and respect.
- **Authenticity**. Ensure messengers are credible and genuinely represent the prospective users.

Table 3. Setting quantitative targets for different audiences – illustrative example

Populations	**Population sizes** (in need of prevention – not the entire population in the country)	**Traditional mass media** (TV, radio, Print media)	**Digital mass marketing** (social media, SMS)	**Virtual outreach and counselling**	**Interpersonal** (peer-led outreach, structured group interventions)
	Annual targets by communication channel (percentages refer to the proportion of the population reached)				
Young women (15-24 years)	850 000	Radio 300 000 (with focus on rural without internet)	Social media 250 000 SMS 300 000	Virtual counselling 20 000 Generative AI 120 000	Schools 400 000 Community 30 000
Young men (15-24 years)	400 000	Radio 120 000 (focus on rural without internet)	Social media 320 000 SMS 240 000	Virtual counselling 52 000 Generative AI 88 000	Schools 340 000 Community 60 000
Adult women (25+)	900 000	Radio 720 000	Social media 720 000 SMS 540 000	Virtual counselling 45 000 Generative AI 50 000	Workplace 120 000 Community 50 000
Adult men (25+)	900 000	Radio 630 000	Social media 720 000 SMS 540 000	Virtual counselling 45 000 Generative AI 70 000	Workplace 240 000 Community 25 000
Sex workers	40 000	No specific mass media intervention (will be reached by the above, while ensuring messaging is inclusive)	Social media 32 000 SMS 24 000	Virtual counselling 15 000 Generative AI 35 000	Peer-led intensive 5 000 Peer-led light 15 000
Men who have sex with men	45 000		Social media 40 500 SMS 22 500	Virtual counselling 30 000 Generative AI 15 000	Peer-led intensive 15 000 Peer-led light 15 000
People who inject drugs	10 000		Social media 7000 SMS 3000	Virtual counselling 6000 Generative AI 4000	Peer-led intensive 5000 Peer-led light 4000
Transgender people	4000		Social media 3200 SMS 2400	Virtual counselling 1500 Generative AI 3500	Peer-led intensive 2500 Peer-led light 1500
Prisoners	3000		Social media 1200 SMS 1400	Virtual counselling 2000 Generative AI 1000	Peer-led intensive 1000 Peer-led light 2000

Note: Population sizes can be obtained from HIV prevention needs estimates in the Spectrum model and/or other models and national prevention plans.

Reframing (behavioural economics: framing)

- **Positive framing**. Focus on the benefits of prevention (e.g. "PrEP empowers you to take control of your sexual health") rather than only on the risks associated with inaction.
- **Gain versus loss**. Experiment with framing messages in terms of what can be gained (health, freedom, peace of mind) versus what can be lost (health, relationships, future opportunities).

Simplification (behavioural economics: ease of understanding)

- Seperate complex information into easily digestible "chunks". Use visuals, infographics and short, clear sentences.

5. Measuring success

Track outputs and outcomes

Investments in communication, demand generation and community engagement can absorb substantial proportions of prevention budgets.[3] Yet, these activities are not always adequately tracked and evaluated, which can undermine an appreciation of their value.

To facilitate monitoring, the programmes need to define combinations of coverage and outcome indicators along the lines of results frameworks (see Annex 1). Typically, output and coverage indicators track the efficiency of implementation, while outcome indicators track effectiveness and allow for assessing whether the coverage results in changes. For example:

- **Output / coverage indicators**. Number and percent of people in the focus population reached with:
  - Interpersonal communication,
  - Virtual interventions,
  - Media interventions.
- **Lower-level outcome indicators on behavioural determinants.** Percent of population with:
  - Correct knowledge of HIV prevention methods,
  - Knowledge of sources/access points for HIV prevention,
  - Adequate risk perception,
  - Self-efficacy (confident to use prevention methods),
  - Ability to negotiate use.
- **Outcome indicators tracking changes in behaviours.** Percent of focus population:
  - Using effective prevention methods (condoms, PrEP, PEP, needles, syringes, etc.).

By using people-centred metrics, programme managers can gain a richer understanding of whether the interventions resonate, foster sustained behaviour change and make tangible contributions to HIV prevention

Population-based surveys on attitudes, norms and behaviours are the gold standard for tracking outcomes. The surveys can establish what proportions of a population were reached as well as which determinants of prevention (e.g. knowledge, risk perception, motivation, self-efficacy) were influenced and their effects on sexual or drug injecting behaviours. However, the surveys are expensive and therefore might need to be replaced with lower-cost alternatives, such as simplified bio-behavioural surveillance ("BBS light") or "polling booth" surveys.

3 In grant cycle 7 of the Global Fund, for example, HIV prevention communication, information and demand creation was allocated more than US$ 200 million investment.

Even substitute surveys may be too expensive to be done regularly. In that case, very basic outcome monitoring questions can be put to people reached by programmes (e.g. by outreach workers, during site visits, or audio-assisted self-interviews on electronic tablets in waiting areas or drop-in centres). When interpreting those results it is important to bear in mind that they are not representative of population-wide behaviours; they speak only to the behaviours of the people reached with the questionnaires.

Coverage of activities can be tracked through programme records or, in the case of media and virtual interventions, through media and online tracking indicators (e.g. "number of visits", "number of contacts", etc.).

Other considerations for measuring and interpreting results

To measure meaningful success, programme managers can consider using the following metrics.

Engagement rate

- **Participation in co-creation.** The number of prospective users who were actively involved in people-centred design workshops, feedback sessions and design iterations.
- **Feedback received.** The volume and quality of feedback on prototypes, communication messages and service delivery.

User satisfaction and experience

- **Surveys and qualitative feedback.** Regular surveys and in-depth interviews can be used to gauge user satisfaction with the convenience, ease of use and perceived value of the intervention. Use metrics such as Net Promoter Score or Customer Satisfaction, where appropriate.
- **Reduced "friction" points.** Track the reduction in identified barriers (e.g. clinic waiting times, stigma, overly complicated documentation) based on user feedback.

Effectiveness of communication messaging and channels

- **Message clarity and relevance.** Pre- and post-intervention surveys can be used to assess the clarity, relevance and usefulness of the information received and the percentage of users who report understanding the messages.
- **Engagement and responsiveness.** Engagement can also be tracked – via click-through rates, shares and comments (for digital channels and platforms), and through attendance and participation (for in-person interventions). In the case of interactive platforms like chatbots and hotlines, response times and quality of engagement can be measured.
- **Influence on decision-making.** Surveys can be used to assess the percentage of users who say the communication influenced their behaviour and/or helped them take a prevention-related decision.

Behavioural intent and self-efficacy

- **Pre/post surveys.** Measure changes in people's stated intentions to adopt or maintain prevention behaviours.
- **Qualitative insights.** Explore people's confidence in their ability to adopt prevention behaviours (self-efficacy) and handle challenges.

Uptake and adherence (qualitative and quantitative)

- **Sustained uptake.** Look beyond initial uptake and track retention rates for interventions like PrEP.
- **Reasons for adherence/non-adherence.** Conduct qualitative research to understand why people adhere or do not adhere, in order to uncover facilitating factors and barriers.
- **"Sticky" interventions.** Measure how well people integrate prevention behaviours into their daily routines.

Reduction in barriers

- Quantify, to the extent possible, the reduction in barriers which had been identified during the empathy phase (e.g. decreases in reported stigma at clinics, shorter waiting times, improved access to services in remote areas).

Qualitative insights/stories of change

- Collect and document compelling qualitative data, such as personal narratives and case studies, that illustrate the impact of the people-centred approach on individuals' lives. These stories can be powerful for advocacy and learning.

Cost-effectiveness (revisited)

- While traditional cost-effectiveness measures remain important, it is also useful to consider the long-term value generated by sustained behaviour changes and improved user experiences. They can lead to greater impact and more efficient use of resources over time, compared to interventions with high initial uptake but low retention.

Proxy measures for "nudges"

- If a specific behavioural "nudge" is employed (e.g. offering users a default option, like "opt-out" testing), track the behaviour change attributed to that "nudge".

By focusing on these people-centred metrics, programme managers can gain a much richer understanding of whether their interventions resonate, foster sustained behaviour change and make a tangible contribution to HIV prevention efforts.

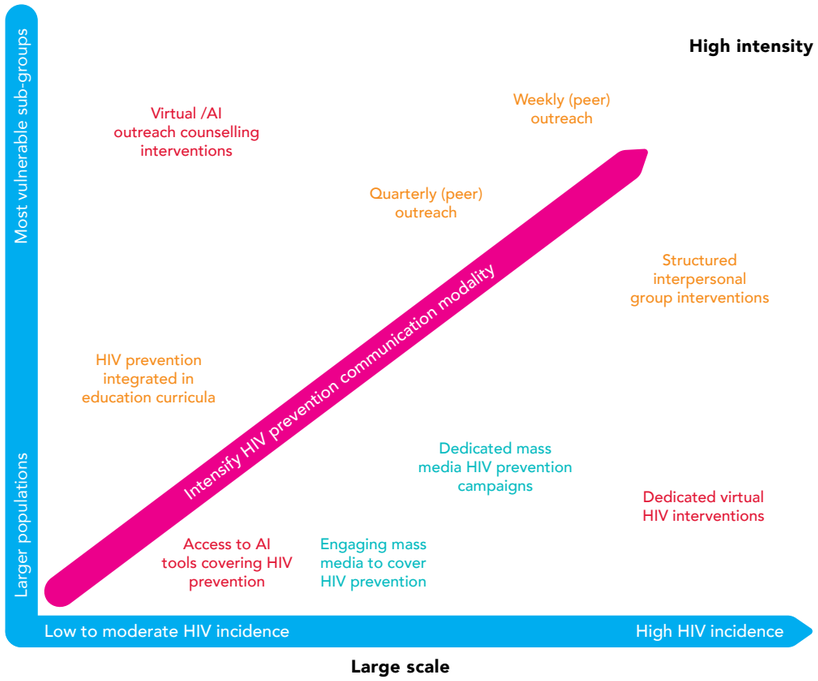
6. Considerations for prioritization, planning and budgeting

Funding is a major constraint for health communication. Public attention is also limited. Prioritization is therefore unavoidable.

Funding is typically the primary constraint for health communication. Even in resource-rich contexts, there are limits to the number of health issues that can be publicized and communicated in systematic and sustained ways, as well as limits to what different platforms can cover and communities can absorb. Prioritization is therefore unavoidable.

In prioritizing activities, we have to consider both scalable and intensive communication options. Mass media and digital approaches are often more scalable, while interpersonal ones tend to be more intensive. Prioritization, though, does not necessarily entail choosing one approach over the other – it's about selecting the most suitable modalities for a given population and topic. Figure 6 depicts the logic of prioritization for prevention communication.

Figure 6. Prioritizing HIV prevention communication approaches by scale and intensity



HIV prevention communication often have been based on generic assumptions, rather than on epidemiological and social realities. For example, interpersonal communication is often thought to be superior to media communication – which may be the case when intensity and direct support are the priorities, but less so when the objective is to increase widespread understanding about HIV and knowledge of new products.

In addition, resource-intensive interpersonal communication is often applied to populations who are at moderate risk for HIV, yet not so much for those who are at high risk of infection, such as members of key populations.[4] It's now possible to design and customize HIV prevention communication strategies that are better tailored and more versatile and adaptable. Digital interventions, it is important to note, allow for engaging with larger populations in interactive ways that offer both intensity and extensive reach.

When developing budgets for these strategies, it is important to include data collection (e.g. through online surveys and social media mapping) and monitoring and evaluation activities (see Chapter 5), and to indicate how hybrid delivery channels will be used to reach target audiences and users.

Picking priorities does not mean choosing one approach over the others—it's about selecting the most suitable mix of modalities for a given population and issue.

Ideally, the prioritization should be based on quantitative information. Figure 6 provides a simplified example of a matrix for prioritization which reflects, at a minimum, HIV incidence in the population, the cost per person reached with interventions, and the assumed effects on behaviour. All inputs would require informed estimates, which:

- for HIV incidence, can be obtained from epidemic models such as Spectrum or Naomi;
- for the cost per person per year, can be calculated based on the estimated total cost for an intervention per year divided by the number of people reached (which will depend on population size estimates and prevention denominators that are derived from the epidemic models);
- for the assumed effects on behaviour, can be obtained from the literature on specific interventions. (Note that it is important not to overestimate the additional effect of demand-side and behavioural interventions, which tend to be moderate and in the range of the examples shown in Figure 6).

Health workers explaining prevention options

4 Key populations include sex workers, gay men and other men who have sex with men, people who inject drugs, transgender persons, and prisoners.

Table 4. Examples of a prioritization matrix for matching populations and prevention communication approaches and estimating their cost effectiveness

Population	Intervention	HIV incidence rate in the sub-population (A)	Cost per person reached per year in US$ (B)	Assumed effect on behaviour / uptake (C)	Cost-effectiveness score (B / A / C)
Young people (15-24 years)	Social media campaign	0.2%	0.5	5%	5,000
Young people	Interpersonal outreach	0.3%	15	30%	16,667
Key population A	Social media campaign	2%	3	15%	1,000
Key population A	Peer outreach & distribution	3%	40	30%	4,444
…	…	…	…	…	…

* The cost-effectiveness score expressed here is defined as the cost per person reached with an intervention and who would have acquired HIV had they not been reached and changed their behaviour (based on the effect-size assumption). The lower the score, the greater the cost-effectiveness. The calculation uses a simple formula: cost per person per year (B) divided by the HIV incidence rate (A) and the assumed effect (C) – for example, for row 1 it would be: 0.5 divided by 0.002 divided by 0.05 = 5,000.

A programme manager check list: step-by-step planning and budgeting

This sub-section focuses on what programme managers need to do when initiating and managing the work. Government prevention leads or focal points for behaviour change or communication will usually not be (or need not be) experts on all areas of design, communication and marketing. The previous sections of this brief provide programme managers with enough information and guidance to lead a national planning and budgeting process for people-centred HIV prevention design and communication.

The following ten steps describe the actual planning process and capture the essential elements that would inform a Global Fund proposal.

The first three steps can performed without a budget or with limited consultancy budget support.

1. Determine the **HIV prevention communication needs** in line with the overall national prevention strategy.
2. Based on the country's HIV prevention needs estimates (e.g. derived by using the Spectrum model), **define denominators for prevention communication** (the number of people in different sub-populations to be reached with demand generation activities).
3. Engage key experts and partners to define the **terms of reference** for the approach and objectives of the country's people-centered prevention design and communication approach.

The subsequent steps often require more funding and therefore usually should be explicitly included in domestic and international funding proposals. Using the information provided earlier in this programming brief, programme managers can **plan and budget** for the following sets of activities.

4. **A user-centered design process** that includes community engagement as described above; conduct the segmentation analysis to distribute the priority populations (as per the prevention denominators shown in Table 4) into different target groups for the various communication channels; and carry out any qualitative or quantitative data gathering.
5. **Development of evidence-based communication plans** for different audiences using an optimized mix of platforms and approaches, including outsourcing the detailed planning and itemized costing to communication and marketing experts.
6. Outsourcing the **development of materials and tools** for interpersonal, media and virtual communication.
7. **Implementation of communication activities across multiple sectors**, including health (e.g. through community health workers), education (e.g. school-based prevention campaigns), labour (e.g. workplace activities), and other sectors.
8. Outsourcing the **implementation of interpersonal outreach approaches**, including social contracting of community and other civil society organizations, and advocacy with community leaders, as needed. (For further details on key population approaches, see Annex 2 and the specific guidance for key population-trusted access platforms).
9. Outsourcing the **implementation of media-based and virtual interventions** (see Annex 3, as well as the separate guide on planning and budgeting virtual interventions for details).
10. Using appropriate**,** cost-efficient approaches to **track coverage and effectiveness** of communication approaches.

The bolded phrases in those 10 steps could be the headlines for budget sections, with the detailed items in each section shaped in accordance with the guidance shown in previous sections of this brief and, of course, with the specific country context. The activities that are to be outsourced will depend on the government's in-house capacities for planning, designing and implementing the various components.

The following section presents examples that can be used to draft funding proposals for communication strategies for HIV prevention.

HIV prevention workers

Four examples of cost-saving, sustainable communication strategies for HIV prevention

As donor funding declines and HIV budgets become tighter, countries can use person-centered design, digital innovations and new partnerships to stretch available resources and maximize impact. These four examples describe practical options for developing funding proposals for cost-saving, sustainable HIV prevention in the context of limited resources.

1. Adapt proven campaign messages and methods for local contexts

Draw on successful, insight-driven messaging from other countries and adapt them for your priority audiences. Use existing platforms and low-cost digital channels to maximize reach.

Cost-efficiency gains

- Use existing data to develop target audience profiles and user "journey maps" instead of conducting expensive market research.
- Supplement those data with light, rapid user research, as needed, to quickly adapt and optimize campaigns.
- Use low-cost artificial intelligence tools to help summarize interviews or generate variations of messages.
- Replace costly mass media campaigns with targeted, timely "nudges" via WhatsApp or Signal and other social media platforms and via text messaging.

How it supports sustainability

- User insights and messaging from similar contexts can often be refined and re-used, which avoids the need to develop new ones afresh.
- Existing digital platforms already capture the attention of target audiences, reducing the need for public health managers to invest heavily in building and sustaining engagement.

Partnership opportunities

- Local media and digital agencies can adapt core messages into culturally relevant content.
- Popular influencers or community leaders can be enlisted as prevention messengers.
- Mobile telephone service providers may donate SMS airtime or advertising space as part of their health-oriented corporate social responsibility efforts.

2. Offer virtual HIV prevention options through telemedicine

Use telemedicine's potential to support task shifting to lower-cost health service providers for virtual follow-up.

Cost-efficiency gains

- Save time and money and reduces pressure on staff and clinic infrastructure by offering, for example: PrEP consultations by phone or video; virtual "check-ins" for adherence support; discreet appointment booking and test results collection.

How it supports sustainability

- Builds on existing private sector infrastructure and promotes strengthening of public health telemedicine infrastructure to support integrated care.
- Promises high cost-efficiency at scale.
- Can support continuity of care during major disruptions (e.g. conflicts, pandemics).

Partnership opportunities

- Telehealth companies can co-develop virtual PrEP pathways and self-testing support.
- Mobile network operators can be approached to offer discounted data for virtual health tools.
- Logistics partners can help enable discreet delivery of HIV self-tests, PrEP or medication refills.

3. Integrate HIV services into everyday spaces

These activities focus on increasing access to and awareness of HIV prevention services by expanding service and product availability beyond health facilities.

Cost-efficiency gains

- Make use of trusted venues (e.g. pharmacies, schools, workplaces or youth centres).
- Share logistics and staff, so new clinics are not required.
- Offer links to virtual services or self-test orders that are scalable and trackable.

How it supports sustainability

- Encourages routine engagement with HIV prevention services through everyday entry points.
- Partnerships with the private sector can create long-term delivery channels.

Partnership opportunities

- Pharmacies can host prevention kiosks and distribute PrEP and self-testing kits.
- Employers and factories can integrate HIV education, self-testing and peer support into occupational health.

4. Support peer- and community-led models with simple digital tools

This work emphasizes the central role of peer and community-led interventions, along with opportunities to increase efficiency in service delivery by using digital tools and solutions.

Cost-efficiency gains

- Community and peer educators are cost-effective, trusted and can reach people who tend to be missed by formal systems.
- Group messaging apps (e.g. WhatsApp, Signal) allow for low-cost coordination, supervision and support.
- Digital forms (e.g. Google Forms, KoboToolbox) can streamline data collection and reduce time and other costs.
- Basic transcription or note summary tools can be used to track trends and issues noted in peer reports to improve learning.
- Digital risk assessment tools can be developed for artificial intelligence-guided advice, support and referrals.

How it supports sustainability

- Community-led service delivery can increase ownership and resilience even when external funding declines.
- Digital tools help standardize and scale peer-led models without requiring major infrastructure.

Partnership opportunities

- Technology companies or foundations can be approached to donate tablets, airtime or app use licenses for telemedicine use.
- Employers can sponsor peer-led prevention initiatives for workers and along their supply chains as part of their corporate social responsibility efforts.
- Messaging platforms can offer free or subsidized access to group communication tools for peer networks.
- App developers can co-create lightweight, offline-capable tools for peer data collection, referrals or education.

7. Conclusion: Towards more effective and equitable HIV prevention

The push to end AIDS as a public health threat is at a critical juncture. Too many people are still acquiring HIV, funding for HIV is under intense pressure, and prevention programmes are being disrupted by budget cuts.

Powerful tools exist for protecting people against HIV, but these tools must reach and be used consistently by the people who need them most. The history of HIV prevention teaches us that it is not enough to make information, services and tools available: the people who stand to benefit from them must be able to use them and must want to do so.

Human behaviour is complex, nuanced and often predictably "irrational". By making use of people-centred design and insights from behavioural economics, HIV planners and programmers can redefine and accelerate HIV prevention. People-centred prevention communication entails understanding the needs and realities of individuals and putting them at the heart of decisions.

By adopting people-centred approaches, HIV planners and programmers can unlock new levels of effectiveness, optimize resource allocation and build programmes and communication strategies that are scientifically sound, relevant and sustainable.

New technologies allow for deploying the strategies across multiple channels. It's now possible to use the power of digital models in combination with small group or face-to-face intensive outreach. Different approaches can be blended, guided by epidemic conditions, people's realities and needs, and available resources. By using these opportunities, we can accelerate the push to end the AIDS pandemic, while ensuring that no one is left behind in our prevention efforts.

Call to action for national programme managers

Prioritize evidence-based strategies. Map out HIV prevention communication needs by population and then design the most suitable mix of messages and channels.

Invest in capacity. Conduct training and skills-building in human-centred design and behavioural economics for your teams or seek out partnerships with organizations that possess that expertise.

Champion empathy. Encourage probing, qualitative research to understand the lived experiences of your target populations. Challenge assumptions.

Embrace iteration. Be prepared to prototype, test, make mistakes and learn through iteration. In the early phases of the design process, perfection is the enemy of the good.

Foster collaboration. Build diverse, multi-disciplinary teams that include behavioural scientists, designers, community members and programme implementers.

Shift measurement. Move beyond traditional output indicators to measure what truly matters: user satisfaction, sustained behaviour change and real-world impact.

Share lessons learned. Document your processes, successes and challenges. Share your insights widely to contribute to the global learning agenda for people-centred health.

HIV community outreach campaign

Annex 1. A logical framework for people-centred design and communication programmes and funding proposals for HIV prevention

People-centered design

Communication

Activities	Outputs	Outcomes	Impact
▪ Analyze HIV incidence, behavior, prevention use & factors associated with HIV /uptake for different sub-populations ▪ Develop detailed segmented profile of sub-populations, their characteristics and preferences ▪ Engage & consult to identify local factors & approaches including through conducting human-centered design (HCD) workshops with communities and providers ▪ Map user journeys to identify barriers, motivators, and preferred communication channels ▪ Develop communication /behavioral section of national prevention plan with cross-cutting (knowledge, risk perception, norms, options & access platforms) and product specific objectives (condoms, PrEP etc) ▪ Carry out behavioral economics analysis and implement recommendations for 'nudging' easy service access ▪ Prototype and test communication strategies with end users	*Products* ▪ Targeted comm's strategies using trusted, accessible channels ▪ Co-created, insight-driven comm's materials tailored to diverse user needs. ▪ User journey maps and personas that inform service and message design ▪ Feedback loops that continuously improve comm's and service delivery *Capacities* ▪ Community leadership, popular opinion leaders capacitated & empowered to promote HIV prevention, supportive norms & enabling environment ▪ All access platforms capacitated to delivery quality & non-stigmatizing services *Reach* ▪ People reached with (peer-led) outreach, small group interventions ▪ People reached with mass media communication ▪ People reached with virtual interventions ▪ People counselled on HIV prevention use as part of service delivery ▪ Individuals, sub-groups who are most affected /at highest risk of HIV reached with supportive interventions	*Determinants of uptake* ▪ Increased knowledge of prevention options (%) ▪ Increased personalized risk perception of HIV prevention (%) ▪ Increased motivation to use prevention options (%) ▪ Increased self-efficacy, skills & adherence (%) ▪ Supportive health, social & gender norms for HIV prevention & safe sex (%) ▪ Increased HIV & health literacy ▪ Reduced HIV related stigma & discrimination ▪ Increased access to HIV & health services education ▪ Enabling laws & policies for key populations & adolescents ▪ Enabling laws & policies for key populations & adolescents *Behavior / use* ▪ Effective and sustained use of prevention options (%): Condoms; PrEP; PEP; Safe injecting equipment; OAMT; VMMC ▪ Less risky sexual partnerships: Reduction in sexual violence	*Contribution of people-centered design & comm's leads to increased uptake of prevention and thereby to:* ▪ Reduced new HIV infections by X% ▪ Reduced STIs by X% ▪ Reduced viral hepatitis by X% ▪ Improved sexual and reproductive health & well-being

Products, supply systems, service delivery, enablers, social support, health and education systems (covered in other guidance)

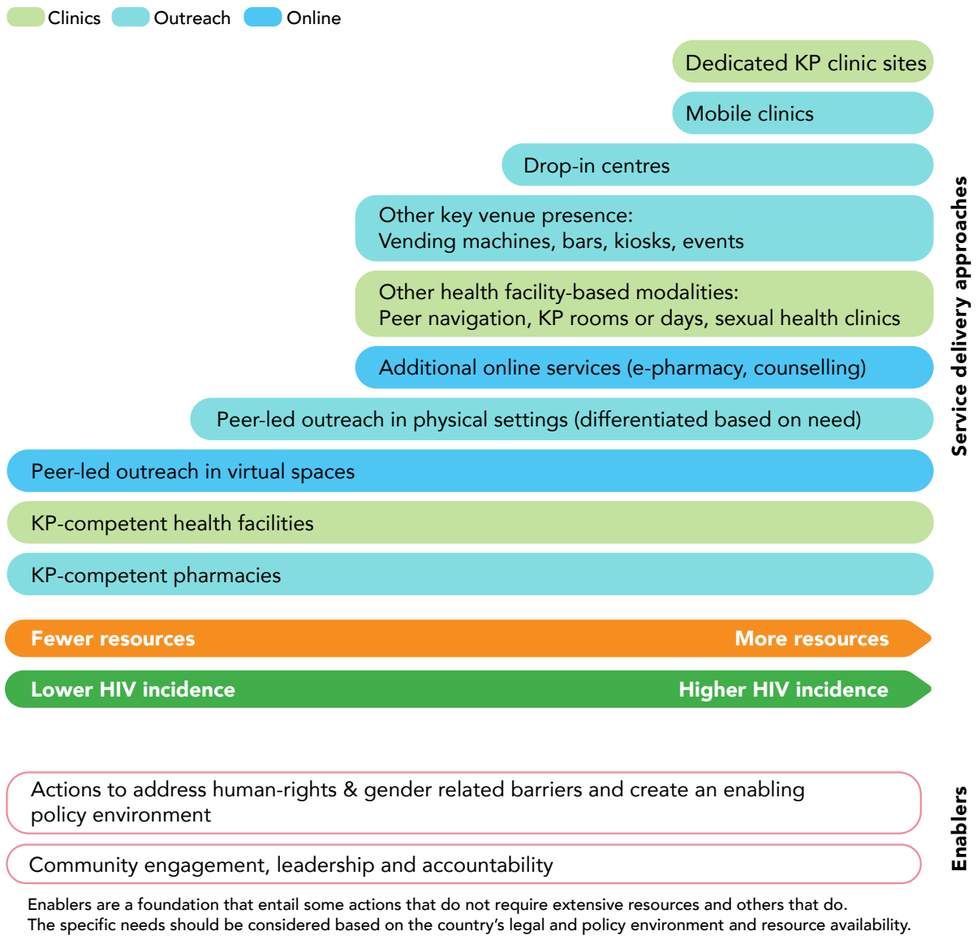
Legend

Specific to this work stream/funding module

Other modules or funding sources / non-HIV outcomes and impacts

Note: This example provides a range of options for countries to choose from. In practice, results statements should then be quantified wherever possible.

Annex 2. Trusted access platforms for key populations

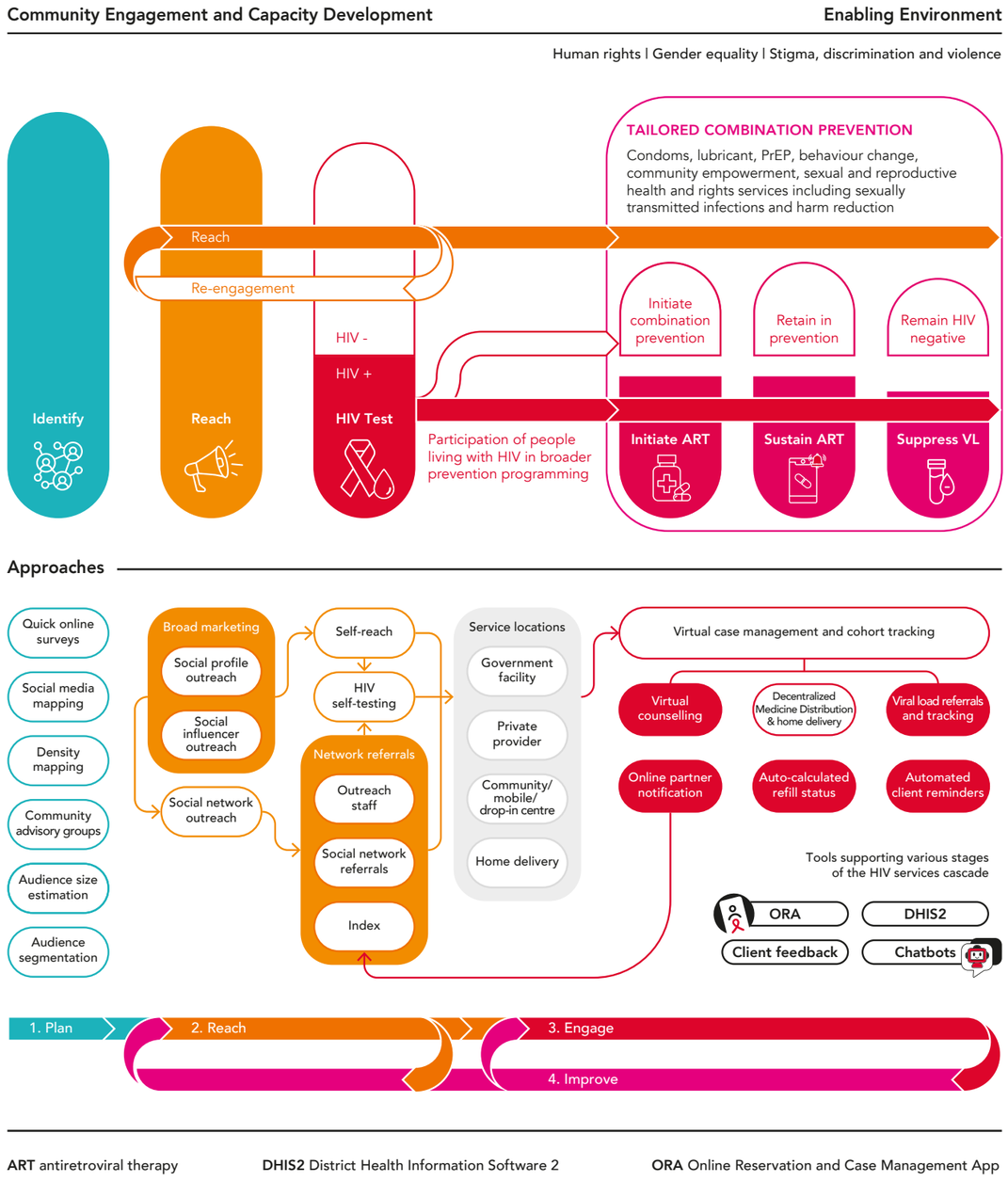


Enablers are a foundation that entail some actions that do not require extensive resources and others that do.
The specific needs should be considered based on the country's legal and policy environment and resource availability.

Source: Planning and managing HIV programmes with key populations: Considerations for delivering and sustaining HIV services through trusted access platforms for sex workers, people who use drugs, gay men and other men who have sex with men, and trans and gender-diverse people. Geneva: Global HIV Prevention Coalition; 2025.

Annex 3. Framework for designing virtual interventions

Source: Budgeting and resource planning guidance for implementing virtual interventions as part of HIV responses. Geneva: World Health Organization and the Joint United Nations Programme on HIV/AIDS; 2025.



ART antiretroviral therapy **DHIS2** District Health Information Software 2 **ORA** Online Reservation and Case Management App

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