Costing and Financing for Self-Care for Sexual and Reproductive Health and Rights: A Review of Evidence and Country Consultations in Low- and Middle-Income Countries in Africa

HEARD/SCTG

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Authorship and Acknowledgements

The Self-Care Trailblazer Group (SCTG) is a global coalition established in 2018, dedicated to expanding the safe and effective practice of self-care so that individuals can better manage their own health, health outcomes are improved, and health systems are better equipped to achieve universal health coverage. The Evidence and Learning Working Group (ELWG), one of the main working groups under the SCTG, has prioritized costing and financing as one of its workstreams to support the business case for self-care, inform appropriate financing of self-care, and ultimately support equity and efficiencies in self-care as a part of the broader health system. The demand for better guidance and evidence on self-care costing and financing was corroborated in the SCTG 2020 member survey, as well as during the SCTG's first annual member meeting in 2021.

The SCTG ELWG commissioned the Health Economics and AIDS Research Division (HEARD), based at the University of KwaZulu-Natal in South Africa, to conduct a scoping review of economic evidence for self-care interventions for sexual and reproductive health in low- and middle-income countries (LMICs). HEARD worked alongside the SCTG in reviewing the scope of evidence available on costing and financing self-care in LMICs in Africa. HEARD is a regional and global leader for applied research in Africa. HEARD's mission is to conduct policy-relevant research that addresses the continent's critical health challenges in partnership with local and international organizations that are working to advance health equity in Africa.

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Executive Summary

Self-care provides individuals and communities with opportunities to manage their health – either partially or completely – without having to access healthcare facilities. Evidence on self-care interventions suggests that self-care may reduce costs associated with obtaining or providing healthcare, for both the individual and for the health system. Economic considerations for self-care take into account cost-effectiveness, value for money, and potential return on investment. This review of evidence covered a number of areas within sexual and reproductive health (SRH), including self-testing for HIV, self-managed abortion, self-injected hormonal contraception, and self-sampling for HPV and reproductive cancers. The majority of evidence on costs and financing comes from high income contexts, and while there is evidence to support the use of self-care and its potential to reduce some of the costs associated with obtaining care, cost-savings are contingent on a number of contextual factors. These include, but are not limited to, costs for implementation, mechanisms for delivery of self-care interventions, and the impacts of cost-shifting between individuals and the healthcare sector.

There is limited evidence contained in published and grey literature on the costs and financing for self-care, especially in low- and middle-income countries (LMICs) in Africa. However, the sources, mechanisms, and principles for self-care financing should support fair use of resources and prevention of catastrophic health spending for individuals, aligned with the objectives of universal health coverage (UHC). In addition to a scoping review, the Health Economics and AIDS Research Division (HEARD) engaged in country consultations with organizations in Nigeria, Senegal, South Africa, and Malawi to document the experiences of countries with a vested interest in advancing self-care. Based on the review of evidence and consultations with country partners, recommendations were generated with the aim of guiding future work on costing and financing of self-care for SRH in LMICs in Africa.

Abbreviations

AIDS	Acquired immunodeficiency syndrome
CHEERS	Consolidated Health Economic Evaluation Reporting Standards
DALY	Disability-adjusted life year
DMPA-IM	Intramuscular depot medroxyprogesterone acetate
DMPA-SC	Subcutaneous depot medroxyprogesterone acetate
ELWG	Evidence and Learning Working Group
FHS	Family Health Services
FP2030	Family Planning 2030
HEARD	Health Economics and AIDS Research Division
HIV	Human immunodeficiency virus
HPV	Human papillomavirus
LMICs	Low- and middle-income countries
NICE	National Institute for Health Excellence
PATH	(Formally) Program for Appropriate Technology for Health
PSI	Population Services International
QALYs	Quality-adjusted life years
SCTG	Self-Care Trailblazer Group
SRH	Sexual and reproductive health
SDGs	Sustainable Development Goals
STIs	Sexually transmitted infections
UHC	Universal health coverage
UNU	United Nations University
VAT	Value-added tax
WHO	World Health Organization

Operational Definitions

Self-Care – "The ability of individuals, families, and communities to promote health, prevent disease, maintain health, and to cope with illness and disability with or without the support of a healthcare provider. Self-care spans the continuum of healthcare to include health-promotion methods and technologies; disease prevention and control; self-medication; care for dependent people; seeking hospital/specialist care when needed; and rehabilitation, including palliative care."[1]

Health Financing – Health financing systems mobilize and allocate money within the health system to meet the current health needs of the population (individual and collective), with a view to expected future needs.[2]

DALY – One disability-adjusted life year (DALY) represents the loss of the equivalent of one year of full health.[3]

QALY – One quality-adjusted life year (QALY) is equal to one year of life in perfect health.[4]

[1] WHO Consolidated Guidelines on Self-Care Interventions for Health: Sexual and Reproductive Health and Rights. Geneva: World Health Organization; 2019. License: CC BY-NC-SA 3.0 IGO, p. 1.

[2] OECD/Eurostat/WHO (2017), *A System of Health Accounts 2011: Revised edition*, OECD Publishing, Paris, https://doi.org/10.1787/9789264270985-en, p. 21.

[3] WHO Data Observatory, Indicators. https://www.who.int/data/gho/data/indicators

[4] NICE Glossary: https://www.nice.org.uk/glossary

Introduction

The World Health Organization (WHO) recognizes self-care as "the ability of individuals, families and communities to promote health, prevent disease, maintain health, and to cope with illness and disability with or without the support of health care providers."(1). Self-care includes a range of medicines, diagnostic tools, and digital health interventions that can be used by individuals and communities to manage their health either with or without the support of a healthcare provider (1). Within sexual and reproductive health (SRH), self-care may be used for a range of interventions, including family planning and modern contraception, safe abortion, and the screening and diagnosis of sexually transmitted infections (STIs) and HIV. The delivery of SRH services is an important part of achieving universal health coverage (UHC). However, in certain cases, the demand for these services exceeds the capacity for health systems to provide them (2). Self-care provides individuals and communities with opportunities to manage their health and maintain wellbeing, providing them with the appropriate tools they need to enhance self-efficacy and be able to make informed health decisions.

The 2019 WHO Consolidated Guideline on Self-Care Interventions for Health provides a set of normative guidelines on self-care as a way for individuals to better manage their health and for countries and communities to be able to adopt quality self-care interventions based on primary healthcare strategies and comprehensive essential service packages and a people-centered approach (1). In low- and middle-income countries (LMICs), self-care has the potential to enhance UHC by improving population access to healthcare services, expanding coverage to hard-to-reach populations, and reducing the costs associated with delivering healthcare services. The WHO and United Nations University (UNU) “Economic and Financing Considerations for Self-Care Interventions for SRH” has identified a need for further research and engagement on costs and financing self-care, particularly for SRH interventions in LMICs (3). Economic considerations around the costs of self-care focus on how self-care

may reduce the costs of care for both individuals and the health system, as well as methods for generating, allocating and using financial resources to support self-care interventions. The majority of evidence on costs and financing for self-care comes from high income contexts, with limited research being done in LMICs.

The Self-Care Trailblazer Group's (SCTG) Evidence and Learning Working Group (ELWG) commissioned the Health Economics and AIDS Research Division (HEARD), based at the University of KwaZulu-Natal in South Africa, to conduct a scoping review of the economic evidence for self-care interventions for SRH in LMICs in Africa. The review focused on self-care interventions within SRH that are not only relevant within the self-care community and within LMICs in Africa but are high-priority interventions globally. This work sought to build on the existing evidence base by selecting self-care interventions and services that are proven to be administered and delivered safely and effectively. The interventions included in the review are: self-testing for HIV, self-managed abortion, self-injected hormonal contraceptives, and self-sampling for HPV.

In addition to a review of evidence, the team identified organizations from LMICs in Africa that are working to advance self-care in their countries and held interviews with key informants with the objective of understanding how costs and mechanisms for financing influence access, affordability, and uptake of self-care interventions in their respective contexts. Consultations were held with self-care partners in Nigeria, Senegal, South Africa, and Malawi to understand and document the experiences of countries that have implemented self-care programs. Specifically, the team focused on research done on HIV self-testing in Malawi and South Africa, self-managed abortion in Nigeria, and self-injected hormonal contraceptives in Senegal.

Building on the available evidence and the documented experiences from country stakeholders, this brief provides illustrative examples and key recommendations of how LMICs in Africa could approach costing and financing for self-care in an effort to increase coverage

and improve access to SRH services. This brief includes a review of emerging research on self-sampling for human papillomavirus (HPV), an area of research that could help reach global targets for SRH and self-care.

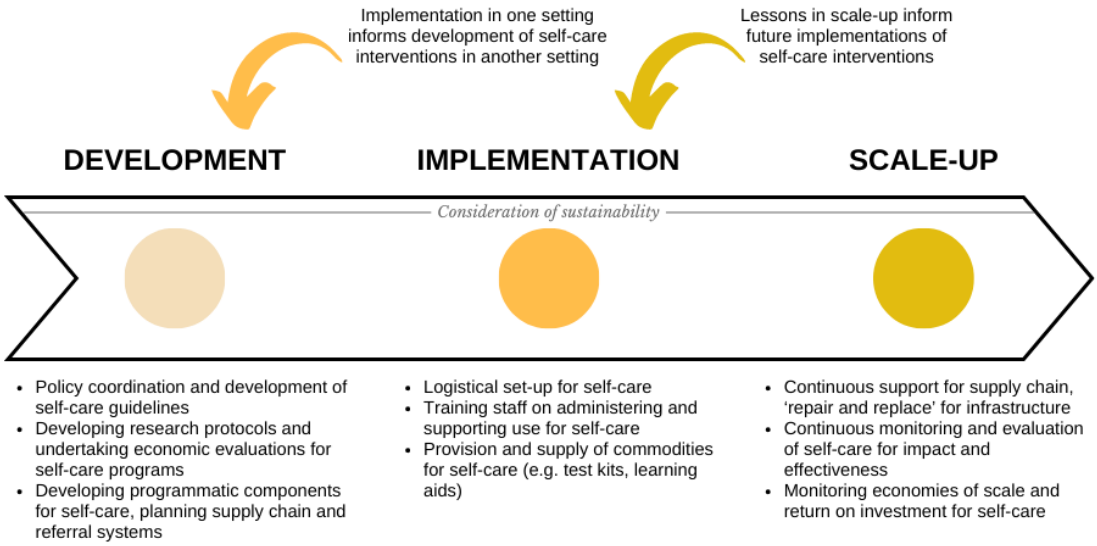
Conceptualizing Costs and Value for money of Self-Care Interventions

A search on costs for self-care was conducted to parametrize the full range of costs associated with self-care interventions. Costs for self-care included the direct and indirect costs incurred by individuals and the health system to access or provide self-care services and products. The search for evidence on self-care sought to understand the scope of self-care costs that are incurred along the implementation continuum, taking into account costs for development, implementation, and continuation for self-care interventions (4). Other cost considerations include how costs translate within the health system context. This was done to address the question of who pays for self-care interventions when implemented. Depending on the perspective taken to analyze costs within the health system, economic evaluations may detail costs incurred by the individual, the health system, or within the broader society.

Costs for implementation: Costs related to development, implementation, and scale-up for self-care interventions

Costs for implementing any new public health intervention can be conceptualized as occurring at different phases: development, implementation, and scale-up (4). For self-care, costs can be conceptualized in a similar way, taking into account costs incurred along the implementation continuum: at development, implementation, and scale-up (see Figure 1).

Figure 1: Simplified illustration of the stages and activities of costs for self-care implementation



Adapted from: Sohn H, Tucker A, Ferguson O et al. Costing the implementation of public health interventions in resource-limited settings: a conceptual framework. *Implementation Sci* **15**, 86 (2020). https://doi.org/10.1186/s13012-020-01047-2

During the development phase, primary cost drivers for self-care may include: the costs for policy coordination and development of self-care guidelines; costs associated with developing research protocols; and costs for undertaking costing studies and economic evaluations (4). The development phase also requires developing the infrastructure required to implement self-care, which may include costs for obtaining logistical approvals, establishing supply chains, and setting up appropriate referral systems (4). At implementation, the costs required to roll out and scale up interventions include: purchasing of commodities (e.g., test kits, learning aids); training staff on administering services or providing guidance on use of products; and the provision of tools for data collection and monitoring and evaluation (3, 4). At scale-up, the costs are primarily related to maintaining the referral infrastructure and managing the supply-chain for self-care products and for the sustainability of the intervention. For example, this

may include costs for regular upkeep of storage space, modifications for supply chain or redesigning or repurposing self-care products to meet the needs of evolving target groups.

The costs at each level vary significantly depending on the type of intervention, and take into account the necessary infrastructure, operations, political buy-in, and engagement of relevant stakeholders needed for successful implementation for self-care interventions. Typically, the costs associated with the development and implementation phases of self-care interventions are proportionally higher than in the scale-up phase. This is due to the fact that the fixed costs required for developing necessary infrastructure to support self-care often occur up front (5).

From a budgetary perspective, this often means a high initial investment in self-care may become amortized, where the cost of the intervention becomes lower over the course of the intervention. This may lead to potential scale effects. When applying a cost lens to economic studies, a drawback is that some economic studies do not include the costs associated with design and implementation of self-care interventions, leading to a misrepresentation of the true costs of their implementation (6). This, in turn, may lead to unrealistic estimates and inaccurate budget allocations that do not reflect the true cost effectiveness of self-care interventions. In resource-constrained settings in particular, accounting for the costs at each level of implementation enables realistic estimates for health budgets, ensuring that the true costs of self-care are realized at the earliest phase of the intervention. Importantly, a consideration of the variable costs that occur during scale-up (e.g., the cost of commodities) may also influence the overall cost-effectiveness of self-care interventions in the long term. As the efficiency and supply of self-care expands, self-care interventions could generate economies of scale, where the average cost of the intervention is reduced once the intervention is delivered at scale.

Understanding how self-care influences costs for the health system

Self-care has the potential to reduce costs for the health system when accessed fully or partially outside of health facilities (7). In cases where self-care can be used as an alternative approach to facility-based care, self-care has the potential to reduce the burden on the health system by freeing up resources and improving efficiencies (3, 7, 8). In contexts where self-care is able to be used freely and safely without the presence of a healthcare provider, there is potential for cost-saving for the health system while not compromising on the quality of patient care. However, careful consideration is needed for implementing self-care as a way to reduce costs for the health system. In some cases, self-care may result in individuals not being linked to further required care, and that missed care may drive up the cost of care in the long term (9). As self-care products, tools, and technologies expand, the costs associated with obtaining services begin to shift from health facilities to different points of care. For example, where self-care products can be purchased at retail pharmacies, online, or through community-based distribution channels, healthcare facilities no longer have to incur the costs of providing these services. This may lead to time saved and technical efficiencies gained for the healthcare sector.

In settings where the demand for self-care has not been sufficiently generated, self-care could lead to diseconomies of scale until the appropriate demand-supply equilibrium is established (3). Cost savings within health systems primarily occur downstream, by improving linkages to care and promoting self-management, reducing the need for patient hospitalization down the line (3, 10). The return on investment for self-care is promising if an enabling environment is created and sustained and demand for self-care is continually generated.

Understanding how self-care interventions influence costs for the individual

For individuals, the use of self-care may incur a lower cost than seeking facility-based care, due to reduced costs for transportation, reduced user fees, and less time spent on information-

seeking and obtaining care (11, 12). Self-care may also generate efficiencies by way of reducing time spent in non-labour participation (13), which is particularly valuable in the context of time saved and productivity gained. An advantage of self-care is that it enables choice and can allow individuals additional options to engage in their health on their own terms. Person-centered participation in health has not always been a strategic priority. However, person-centered approaches are becoming increasingly relevant in LMICs, focused on encouraging individuals to be autonomous, self-sufficient, and responsible for their own health (14).

A primary concern around how self-care influences costs for individuals involves cost-shifting, whereby the cost of commodities (e.g., test kits or medications) ultimately becomes the responsibility of the client. Particularly in the retail environment, costs for self-care at different points of care may require individuals to pay for commodities themselves, putting them at risk of incurring high out-of-pocket expenditure.

Understanding value for money: Economic evaluations for self-care

Economic evaluations are frequently used to compare the relative costs of obtaining care through different service delivery models in order to be able to inform prioritization of health services and estimate the value for money for different health interventions. There is an emerging body of evidence on economic evaluations for self-care interventions as an additional approach to facility-based care ("standard care") that aims to assess the value of offering self-care to improve service access and coverage (15, 16). Economic evaluations focus on value for money in order to maximize the benefits of investments for health. The economic perspective taken to determine economic value should reflect the full range of costs associated with self-care from the perspective of the health system, individuals, and broader society (17). Economic evaluations include costing, cost-effectiveness, cost-utility, and cost-benefit analyses, usually taking into account both the costs associated with an intervention and its health outcomes.

Costing analyses estimate the economic cost of an intervention, including not only monetary costs but also the value of all resources used (18). These can include direct and indirect costs, medical and non-medical costs, and opportunity costs, and can be estimated from the perspective of the provider, the patient, or holistically from the perspective of society. Cost-effectiveness analyses compare the relative costs and outcomes of different interventions, and assign a monetary value to measure the effects, usually using natural units of outcome measures (e.g., cost per person tested; cost per HIV infection averted) (18). Cost-utility analyses are similar to cost-effectiveness analyses, but usually use an aggregated health outcome (e.g., DALYs or QALYs). Cost-benefit analysis measures both the costs and benefits of an intervention in monetary terms so that the economic value can be directly compared with the economic cost of the intervention (18).

Figure 2: Outcomes for Self-Care

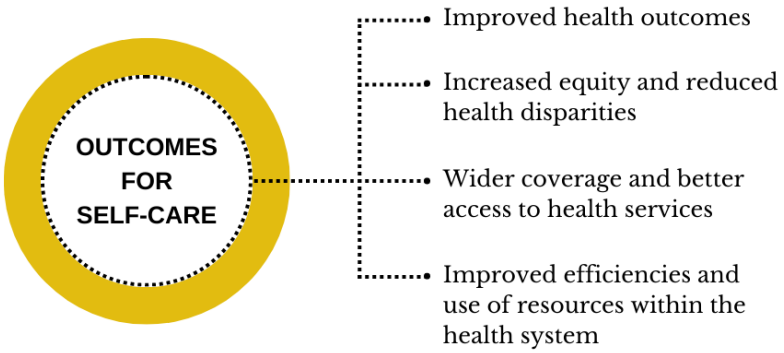


Figure 2: Outcomes for self-care

Financing Self-Care Interventions

A search on self-care financing found limited evidence for self-care-specific considerations. Principles for financing for other public health interventions may be applied to self-care and should consider sources and mechanisms that support the objectives of increasing access, uptake, and equity, while reducing exposure to financial risk for users in the health system. Self-care financing is specific and contextual. However, self-care financing should be implemented to enhance the primary objectives of UHC, considering access, quality, equity, and protecting individuals from financial risk.

This section focuses on methods for generating, allocating, and using financial resources to be able to pay for products, tools, and services that support self-care interventions (19). Self-care is primarily financed through a blend of sources, including public funding, private-sector financing (including user fees), and external funding and development assistance (for LMICs). These are leveraged through various mechanisms that enhance service delivery and healthcare access to reduce health disparities within populations.

Public sector financing

Self-care interventions may be financed using public sector financing, primarily through general tax revenue such as VAT or income tax (3). Mechanisms for generating and allocating domestic expenditure include funding healthcare through national health budgets or using funds generated through tax-based insurance systems. Public financing is an important source of funding for self-care, given that it is a stable and predictable source of funding and a larger pool of funds (20). The inclusion of self-care into essential benefits packages may provide opportunities for interventions to be strategically funded based on evidence from economic evaluations.

A typical challenge in LMICs is inadequate funding for health, with many countries struggling to effectively fund health systems. In countries with a low tax base, public financing through

involuntary insurance mechanisms is not always effective to raise revenue. As such, public sector financing is often supplemented with other sources of funding such as external development assistance and user fees (7).

Private sector financing and user fees

Private sector financing includes revenue generated through private health insurance, community-based insurance schemes, or through out-of-pocket expenditure from healthcare users. Revenue raised through private sector financing is primarily sourced through the proportion of the population who are able to contribute to private insurance schemes, meaning that the revenue that is pooled and the services that are purchased will only cover a small proportion of the population (20). A typical challenge in LMICs is that privately marketed interventions often target those who are financially better off, essentially preventing the poor and vulnerable from accessing these services (21). Health disparities and access to services between economic sub-groups within populations has been an ongoing discussion within health financing (22).

More recently, community-based insurance systems have emerged in countries such as Ethiopia and Rwanda as a way to balance cost sharing between the public and private sectors. These schemes allow communities to make individual contributions to the health sector alongside support from the public sector, which offsets the cost of healthcare in private-public partnerships (23, 24). Despite the potential of these systems, research has shown relatively low participation from communities and the poorest members of the community remain excluded (25, 26). In some instances, self-care may exacerbate inequalities by shifting financing onto the individual. However, appropriate mechanisms for regulating and subsidizing private sector funding could improve access to self-care if blended financing is considered. An important aspect of private financing is ensuring individuals do not have to pay for health services out-of-pocket, protecting them from financial risk and catastrophic health spending.

External funding

External funding and foreign aid from donors and organizations help promote economic development and support health systems in LMICs in Africa (27). While external funding may supplement health budgets in low-resource settings, this type of financing can be unpredictable and inconsistent (28). Research suggests external funding makes up a high proportion of total health financing in low-income countries but decreases significantly for LMICs (28). This may impact the sustainability of interventions as countries become more economically developed. Moreover, external development assistance may be conditional on specific interventions or services, making it difficult to allocate funding and make decisions around financing. Depending on donor priorities, self-care may not be financed without vested interest from investors. An argument can be made for including donor funds within a contributory risk-pooling mechanism that can be used to support self-care against donor-targeted interventions (29).

Overview of the Evidence

HEARD reviewed evidence on costing and financing self-care for SRH in LMICs in Africa. The research process had several key components. The first was to operationally define self-care, its costs, and mechanisms for financing. Then, researchers selected relevant interventions to include as part of the scoping review and designed and executed a consultative process with key stakeholders from organizations that are engaged in self-care in selected African countries.

The purpose of the research was to: (1) understand the costs associated with delivering self-care, taking into account how costs change or are influenced when self-care is included within the broader health system; and (2) to understand the ways in which self-care could be financed and delivered, taking into account the return on investment for implementing self-care interventions. This work was guided by the work done by the WHO and UNU and includes

reference to key documents, including the WHO Consolidated Guideline on Self-Care Interventions for Health (1) and the Economic and Financing Considerations Report for Self-Care (3).

This report focused on four key interventions within self-care for SRH: HIV-self-testing, self-managed abortion, self-injected hormonal contraceptives, and self-sampling for HPV. Country consultations were used to gain an in-depth perspective on countries' approaches to self-care costs and financing, focused on organizations that have a vested interest in self-care.

Method

A Scoping Review of Literature on Costs and Financing for Self-Care

Online literature reviews were conducted using three electronic bibliographic databases (PubMed, Embase, and Web of Science) to identify relevant peer-reviewed studies. Internet searches were used to find relevant gray literature and other key documents and reports. The review focused on evidence related to costs and financing for public health interventions broadly, and also specifically for self-care within the four designated key SRH areas (self-testing for HIV/AIDS, self-managed abortion, self-injected hormonal contraception, and self-sampling for HPV). Search terms used to obtain relevant data included: "self-care" OR "self-inject*" OR "self-test*" OR "self-manag*" AND "cost" OR "cost-effectiveness" OR "cost-utility" OR "cost-benefit" OR "health financing" AND "sexual and reproductive health" OR "HIV/AIDS" OR "abortion" OR "contraception" OR "human papilloma virus." Internet searches were used to find relevant gray literature and other key documents and reports. The WHO database was used to obtain relevant reports and guidelines. In addition to this search, a "snowball" method was adopted to track references and obtain relevant articles.

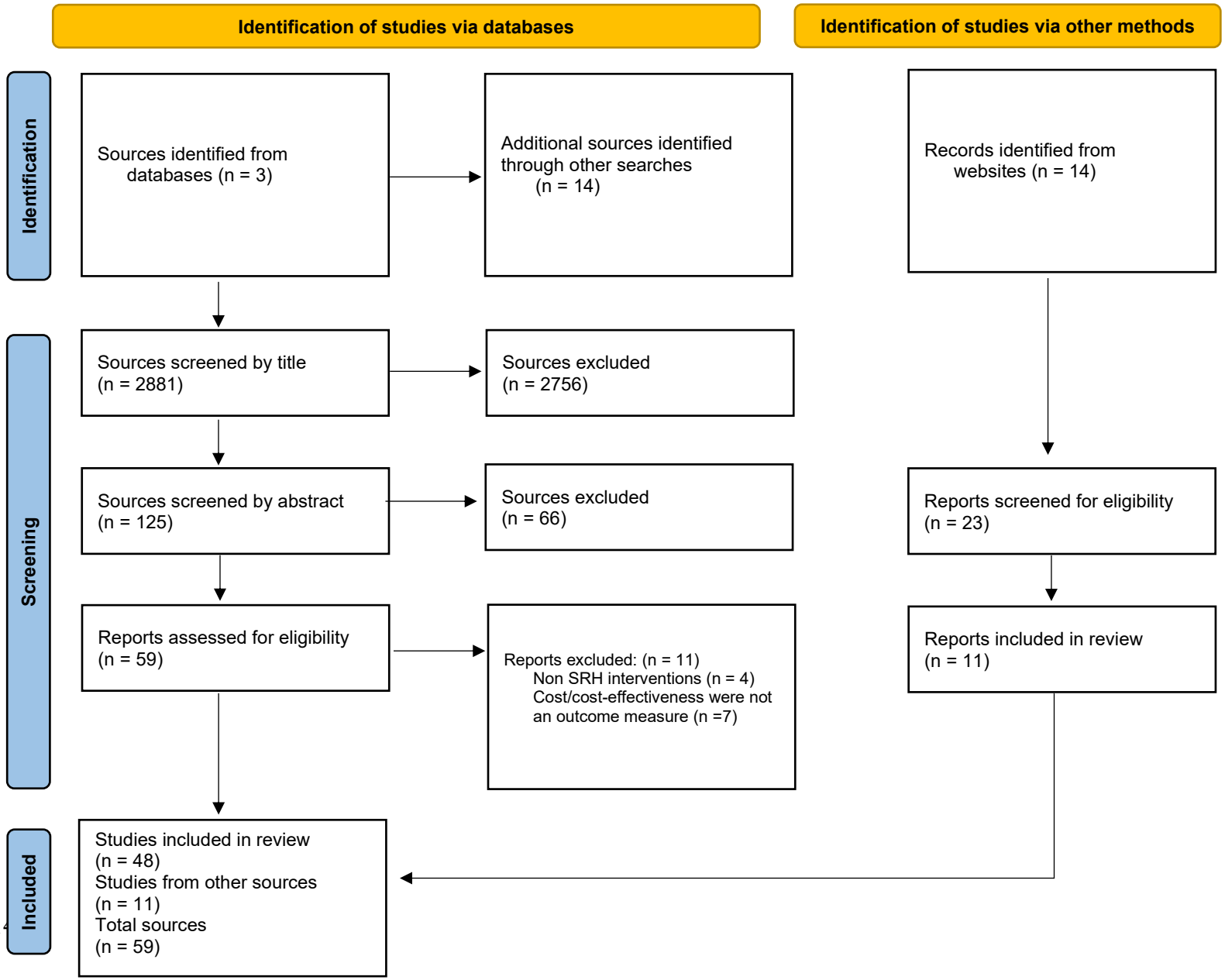
Primary and secondary studies were included in the review. Eligible studies were those that reported on costs or financing for self-care interventions within the selected SRH areas. This included randomized and non-randomized controlled trials, case and cohort studies, mixed-

method studies, economic evaluations, qualitative studies, and systematic review research. The sources selected were limited to studies published between 2019 and 2023 that reported on cost or financing elements of self-care within the selected SRH interventions.

The search yielded a total of 2,881 sources with an additional 23 sources identified through other search methods. After removing duplicates and screening the sources by title, 2756 articles were excluded. 125 sources were screened by abstract and a further 66 sources were excluded from the search. Following a full-text assessment of 59 reports, 47 were included in the review. Of the 23 sources identified through other methods, 11 reports were included in the review. There was variance in the sources in terms of study type, SRH intervention area, and outcomes of interest. Of 47 studies used, 18 were original articles, 13 were review articles (including commentaries and editorials), 10 were systematic reviews, and six were reports or guidelines. Intervention areas included SRH broadly (n=8), HIV (n=10), abortion (n=7), contraception (n=9), and HPV (n=8). An additional four articles that reported on costs and financing self-care were also included. The majority of studies were from LMICs or fragile or humanitarian settings (n=42). A total of seven economic evaluations were used to inform the development of costing and financing principles, and the recommendations.

Figure 3: PRISMA flow diagram of study identification, screening, and inclusion. Other sources identified through WHO database and snowball methods

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. For more information, visit: http://www.prisma-statement.org/



HEARD developed a data extraction template that was used to extract relevant information from selected studies. The framework included columns corresponding to the type of self-care intervention; the region or country; the focus of study (e.g., ICER, impact analysis, etc.); the type of service delivery modality and setting; the target population; the costing method; and an indication on empirical or modelled costs (i.e., to determine quality of estimates) and other essential data. Information was organized under the framework to synthesise the studies and draw conclusions across the data (30).

Country Consultations with Key Stakeholders

Country consultations were undertaken in an effort to demonstrate how different countries have approached financing for self-care. Through a consultative process, teams from Ipas in Nigeria, FHS in Malawi, PSI in South Africa, and PATH in Senegal shared their insights into costing and financing for self-care in their respective countries. An interview guide was developed to understand how pioneer countries have financed and implemented self-care interventions, with a focus on the financing architecture for self-care interventions (including public subsidy, private sector financing, and direct user payment, as needed), their progress to date, and possible next steps for advancing self-care. Guided by the 2019 WHO and UNU Economic and Financing Considerations report, the tool included assessment areas and questions which focused on specific interventions that have been adopted by each country.

Findings From the Scoping Review of SRH Interventions

HIV Self-Testing

HIV self-testing has been a focal area for self-care research in Africa. Many countries in Africa including South Africa, Botswana, Kenya, Nigeria, and Zimbabwe have included HIV self-testing in their national health guidelines and continue to make self-testing for HIV a strategic priority (31). More than 30 countries in Africa have either developed or routinely implemented policies on self-testing in an effort to expand coverage and increase uptake of

HIV testing (32). HIV self-testing has been found to be acceptable and effective, with evidence supporting its use as cost-effective when compared to facility-based testing (33-35). The primary cost drivers for HIV self-testing are the unit costs of self-test kits and the costs associated with distribution (34). Costing studies have evaluated mechanisms for HIV self-testing distribution through various channels, including via health facilities, community-based or door-to-door distribution, and primary (self-collected) or secondary (partner-collected) distribution models. There is strong evidence for community-based distribution models as a lower-cost alternative to facility-based testing (35). However, there is limited evidence on case-finding and linkages to care for these models. Facility-based testing typically incurs a higher cost compared to other models, given the direct and non-direct costs associated with managing health facilities.

Importantly, HIV self-testing is promoted as an alternative choice to facility-based screening and is not intended to replace facility-based care. Economic evaluations in Malawi have shown that introducing community-based HIV self-testing in addition to standard facility-based care makes it possible to deliver HIV-testing at a low additional unit cost. This is likely to be cost-effective, especially in contexts with high prevalence of undiagnosed HIV (36). The inclusion of self-testing has led to increased uptake of treatment services and has a key benefit of reaching previously untested populations. Based on modelling studies done in Sub-Saharan Africa, in order to maximize population health within a fixed budget, HIV self-testing should be targeted on the basis of undiagnosed HIV prevalence (37). Generating demand for self-care interventions in these contexts may decrease the costs of care over time.

Financing for HIV self-testing varies across contexts and may be financed fully or partially by national health budgets. In South Africa, HIV self-testing has been central to the country's HIV care strategy and high priority on the national public health agenda. Since 2016, the South African government has supported HIV self-testing through the National HIV Testing Services Policy – which is aligned with WHO recommendations – to ensure that people living with

HIV are diagnosed more rapidly and begin treatment promptly. South Africa's Department of Health procures self-testing kits through its annual testing budget to increase accessibility and availability of HIV self-testing countrywide. In contrast, Malawi's Ministry of Health predominantly relies on the aid of external donors to support HIV self-testing in that country. With the help of local and international partners, Malawi is closing the gap for the 95-95-95 target, with around 90 percent of the17 population being aware of their HIV status (38).

HEARD contacted a team at PSI South Africa and FHS Malawi to discuss the costs of HIV self-testing and how these interventions are sustainably financed.

A spotlight on Malawi and South Africa: HIV self-testing toward achieving the 95-95-95 targets

In both Malawi and South Africa, self-testing for HIV has formed a central part of care strategies to improve HIV testing coverage and expand access to those who experience difficulties obtaining care, including hard-to-reach and test-averse populations.[1] Malawi and South Africa have been recognized for adopting progressive policies that provide guidance for multi-sector engagement on HIV treatment and prevention. Both countries have received substantial support from foreign donors, which has allowed self-testing for HIV to expand country-wide, and, in South Africa's case, to begin local manufacturing processes for test kits. Malawi and South Africa are promoting HIV self-testing, with both countries establishing a supportive policy environment and prioritization of HIV self-testing in the national health agenda. Financing for self-care is very much context specific. In Malawi, HIV self-testing almost entirely donor-driven. In South Africa , on the other hand, we see that HIV self-testing is funded through a mix of public, private, and external sources. Whatever the funding model, it is critical that decisions made around financing for self-care should take into account mechanisms that make self-care accessible, equitable, and affordable for the population.

Read more about the work of PSI South Africa and FHS Malawi here: (Link to Annex)

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Self-Managed Abortion

Self-managed medication abortion is one of the least developed self-care interventions, given the restrictive laws and policies around this intervention. In restricted environments, evaluation of the costs associated with abortion care is primarily a review of the cost of a safe

versus an unsafe abortion. The cost of care for self-managed abortion is contingent on the following factors: the type of abortion service sought; whether it is managed in or outside of a health facility; and the costs associated with post-abortion care. Self-managed medication abortion provides a medically safe and cost-effective method for pregnancy termination in early gestation. However, in many contexts its uptake is restricted by policy barriers, stigma around abortion, and criminalization of accessing abortion services. The WHO's Abortion Care Guideline (2022) presents a complete set of recommendations and best practice guidelines for abortion care, stating that being able to obtain safe abortion is a critical part of SRH. Despite global organizations' best efforts to reduce stigma and offer supportive services and better financing for abortion care, unsupportive laws and restrictive policies at a national level continue to be one of the biggest barriers to safe abortion services.

Out of 54 countries in in Africa, only four (Cape Verde, South Africa, Tunisia, and Zambia) have liberal abortion laws. Even in these contexts, however, the high costs of clinical services, restricted access to medication, and a lack of trained or willing staff to provide services are persistent barriers to obtaining safe abortion care. For example, Zambia has liberal laws on abortion, but its rates of unsafe abortion remain high, with negative economic consequences occurring at the individual level (39). Evidence from Zambia estimates a high cost burden for women for both safe and unsafe abortion (40). For unsafe abortion, the costs related to post-abortion care dramatically increase the total cost of care, with "unofficial" provider payments representing a primary cost driver for women seeking care (40). In South Africa, another country with liberal abortion laws, the costs of accessing abortion care varies across the public and private sectors. However, while the costs to access abortion care in the public sector are relatively low, the primary cost drivers for women include loss of income, transport fees, and the cost of supplies for self-managed abortion (41).

In countries with restrictive policies on abortion, evidence shows that despite limited access to these services, the total number of abortions that take place is not necessarily reduced.

However, the safety of the abortion services accessed by the individual is compromised. The consequences of abortions taking place outside the formal healthcare sector mainly present as complications of unsafe abortion methods, which become the main cost driver of abortion care in facilities (42). Moreover, the physical health and safety risks incurred by the individual may lead to long-term complications that require ongoing care. In Burkina Faso, for instance, the law prohibits abortion except when it is necessary to save a woman's life. As such, many abortions are undertaken using unsafe methods or without the intervention of a healthcare professional (43).

In Burkina Faso and Nigeria, the high number of unsafe abortions each year manifests within healthcare facilities as complications from these procedures (44,45). In Nigeria, it was estimated that the cost of treating post-abortion complications in 2015 was approximately $7.6 million. Cost-benefit analyses estimate that extra spending on safe abortion services and adequate family planning would lead to substantial savings on post-abortion complications (46).

Given the policies around accessing abortion care and the restrictions placed on obtaining care, financing for abortion services is primarily paid out-of-pocket by users (47). In less restrictive environments, safe abortion care may be subsidized by the public sector. However, in most cases commodity costs must be covered by the patient. To understand the costs associated with obtaining abortion care in a restrictive legal context and some of the challenges and opportunities associated with abortion care, HEARD consulted with the team at Ipas to get a landscape review of self-managed abortion care costs and financing in Nigeria's healthcare sector.

A spotlight on Nigeria: Restrictive laws pose challenges to safe abortion

Abortion in Nigeria is prohibited with the exception of cases where it is necessary to save or preserve the woman's life. It is estimated that approximately 1.8-2 million abortions occur each year in the country.[1] The restrictive legal environment and a lack of supportive policies lead to many abortions taking place outside the formal healthcare sector and without the support of healthcare providers. The cost of abortion is often incurred by the woman accessing the services, except in cases where women are deemed eligible to receive abortion care in the public health sector. The type and quality of abortion services offered are primarily determined by: (1) the provider or supplier of abortion services (e.g., pharmacies, local drug vendors); (2) whether services are accessed in or outside of healthcare

Self-Injected Contraception

The recently developed self-injectable subcutaneous depot medroxyprogesterone acetate (DMPA-SC) is an effective method for managing fertility and preventing unplanned pregnancy in women of reproductive age (48). DMPA-SC, available under the product name Sayana Press®, is an easy-to-use, low-dose hormonal contraceptive designed for self-injection into the upper arm or glute (49). Sayana Press® has been included as an additional option for contraception in several African countries. Injectable contraceptives are the most widely-used contraceptive methods in Sub-Saharan Africa, with an estimated 16.5 million users across the region (50). Evidence suggests that the use of self-injected DMPA-SC decreases the distribution costs associated with delivering injectable contraception, particularly under community-based models (51, 52). However, in many countries, injectables have not been made widely available

outside facility settings, limiting the number of providers that are able to distribute and administer injections to communities.

In studies comparing the costs of facility-based, community-based, and self-injection across Burkina Faso, Senegal, and Uganda, results have shown that the direct non-medical costs (e.g., travel costs, costs of seeking care) were lowest for self-injection compared to community-based delivery models and facility-based care (53). In these countries, the total costs for community-based distribution of DMPA-SC were found to be lowest, with the highest cost driver being learning aids and program training costs to ensure safe use of injectables (51). Thus, the total cost of DMPA-SC is lower once training has been completed.

A study in Senegal estimates that the use of DMPA-SC could prevent 1402 additional unintended pregnancies per 100,000 injectable contraceptive users, thereby contributing to averting 204 DALYs within this cohort (51). Based on modelling studies from Uganda, self-injected DMPA-SC could prevent 10,827 additional unintended pregnancies per year and avert 1620 DALYs in a hypothetical cohort of 1 million injectable contraceptive users, as compared to facility-administered injections alone (51). The health impact of DMPA-SC use has implications for maternal and child health outcomes, aligning with FP2030's ambitious goal of empowering the voluntary use of modern contraception by 120 million additional women and girls in the world's lowest-income countries and the SDG goal of reducing global maternal and child mortality rates by 2030. The evidence suggests that self-injection of DMPA-SC is a value-added choice of contraceptive services and projected outcomes for providing these services may yield a high return on investment.

In many African countries, financing for DMPA-SC is externally driven and is funded by private companies and international organizations (54). Through multi-sector partnership, it is common that blended financing mechanisms support the manufacturing and distribution processes for DMPA-SC. In Senegal, for example, Sayana Press® is manufactured by a private company and is paid for by external donors (54, 55). The costs for distribution and delivery are

supported by the MOH and are driven by state-funded providers in public health facilities. Users of DMPA-SC are required to pay a subsidized co-pay ("handling fee") of approximately $1 per three-month dose (52, 53).

To understand decision-making around DMPA-SC and contraceptive programs, HEARD interviewed the team at PATH in Senegal that has been instrumental in the development of Sayana Press® and its distribution to health facilities across the country. The purpose of the

A spotlight on Senegal: Self-injection for subcutaneous depot medroxyprogesterone acetate (DMPA-SC) as a new direction for hormonal contraception

Injectable contraceptives, including the self-injected subcutaneous depot medroxyprogesterone acetate (DMPA-SC), are the most widely used contraceptive method in Sub-Saharan Africa, with an estimated 16.5 million users across the region.[1] DMPA-SC is available as a product called Sayana Press®, which was originally developed by the organization PATH as a self-injected hormonal contraceptive.

A substantial investment has been made to develop policies, scale-up resources, and expand DMPA-SC programs in Senegal. However, a relatively low uptake for family planning and contraceptive services is driven by a lack of knowledge on family planning methods, concerns about side-effects of contraceptives, and limited supply and low quality of family planning services.[2] In a discussion with the team at PATH, representatives stated that the biggest cost exercise in scaling-up DMPA-SC interventions was in development, including funding years-long research, identifying stakeholders, and establishing the policy landscape. As of 2017, DMPA-SC has been offered across all levels of health facilities and has been implemented to scale. Costing studies have reviewed the relative costs of delivering DMPA-SC under different distribution strategies. These include distribution via healthcare facilities, under community-based strategies, and via self-administration. Findings show that the total costs of DMPA-SC administration were lowest for community-based distribution, with direct non-medical costs being lowest for self-injecting women.[3]

Despite recording some major successes in the DPMA-SC scale up, there are critical challenges that remain. Family planning services in Senegal are primarily funded by external donors, with the national government taking the lead on establishing the supply chain, distributing products, and training the health workforce to use and administer DMPA-SC. A significant barrier to women accessing DMPA-SC is that the injection is only available from healthcare facilities and, as cost studies show, this mechanisms for distribution incurs the highest cost per injection distributed compared to community-based and self-injection models.[4] A policy goal is to enhance community distribution models of care to improve access and uptake of DMPA-SC to move toward national family planning goals. PATH is working with the MOH on a strategy plan to increase the uptake of DMPA-SC through community distribution channels, with options to improve access to DMPA-SC through registered pharmacies and other community outlets.

PATH is a global team of innovators that accelerate health equity so all people and communities can thrive. Read more about the work of PATH on DMPA-SC programs here: Link to annex

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HPV Self-Sampling

Self-sampling for HPV is an emerging intervention in self-care research in LMICs. HPV is one of the more common STIs, with prevalence in Sub-Saharan Africa estimated to be anywhere between 7 and 60 percent (56). The WHO recommends self-sampling as a tool for cervical cancer screening as it is considered to be accurate, generally accepted by target populations, and cost-saving. Self-sampling for HPV has the potential to help reach the WHO's global target of 70 percent screening coverage by 2030. Studies have found that self-sampling for HPV can be cost effective for cervical cancer screening. However, only five out of 16 studies found were from LMICs.

While self-sampling has mostly been tested in high-income countries, countries in Africa are beginning to incorporate HPV screening into national health policies. Recent evidence from a study in Malawi showed women had a general willingness to utilize self-sampling for HPV, but this did not necessarily translate into subsequent uptake of cervical cancer screening (57). Similarly, a study from South Africa showed self-sampling was generally acceptable but an overall lack of knowledge on HPV and low-levels of self-efficacy were found to be barriers for self-sampling. A common finding in the literature was that there was low demand for services and general lack of education around HPV.

Generating public demand for HPV testing has the potential to increase uptake and accelerate progress toward screening goals. In terms of costing, HPV is one of the more expensive self-tests to develop and requires additional costs for processing through pathology laboratories (58). Based on preliminary studies done in Uganda, the delivery of HPV self-sampling kits through community-based models is seen to be the most cost-effective route of delivery (59). However, this mechanism has not been widely tested in other African countries to date. Research is needed to identify strategies to generate demand and improve knowledge, with the aim of increasing coverage of HPV self-sampling.

Recommendations

Recommendations from published literature and input from stakeholders for costing and financing self-care are specific and contextual. However, certain principles can be applied broadly and point to the key considerations for how costs and financing is conceptualized.

i. Costing

Costs for self-care interventions need to be defined at every level of implementation

To better inform policy, budget planning, and cost estimates, the costs for implementing self-care interventions need to be considered at development, implementation, and scale-up. This will minimize biases that may lead decision-makers to underestimate the resources needed for successful implementation of interventions.

Cost saving for the health system must have a long-term perspective

Self-care interventions should be considered with the long-term perspective that they may yield a return on investment downstream. Modelling analyses and extended cost-effectiveness evaluations can be used to determine financial investment against future gains or losses, taking into account sufficient generation of demand for self-care and the influence of economies of scale.

Self-Care needs to be a "best buy" for users

Self-care can be a value-added intervention by enabling choice for the user and providing an opportunity for self-management for health. In contexts where self-care is seen as a value-for-money alternative, costs of care should be kept low to prevent catastrophic spending for health services and ensure financial risk protection for users.

Self-care should not shift costs onto the user

A key consideration for equity is that self-care should not be promoted as a means of saving costs for the health system by shifting costs to users. For example, if users have to obtain test kits or other devices or supplies to access an intervention that would otherwise be paid for if accessed within health services, then wherever possible, these costs should remain within the health system and not be transferred to the user.

Economic evaluations can be used to inform decision-making and determine cost-effectiveness for self-care interventions

Economic evaluations are useful for providing evidence for the costs of self-care relative to its potential health outcomes. Economic evaluations are contextual and continuous, but do provide a perspective to reflect the full range of opportunities associated with self-care.

ii. Financing

Health financing for self-care should consider mechanisms that move toward a reliance on public funding

As a long-term perspective, moving toward domestic resources for health allows countries to better generate, distribute, and strategically purchase self-care services for the population. A challenge in many African countries is being able to fund self-care using domestic sources, as countries are often reliant on external financing. Moving toward domestic expenditure may improve the sustainability of financing for self-care.

Private sector regulation at the appropriate level could be used to expand access and improve efficiencies for development and distribution of self-care

Taking advantage of a public-private partnership may expand access to self-care services or products, however careful consideration is required to not perpetuate inequalities by targeting the "better off."

Exploring options for blended financing for self-care to raise revenue, pool resources, and strategically purchase healthcare services

Investments in self-care from multi-sector sources should focus on reducing costs for the user, to prevent excessive out-of-pocket expenditure. There may be scope for blended financing models that include a mix of tax-based funding, private financing, insurance, and partial out-of-pocket expenditure. Developing differentiated financing models that use a total market approach strengthens the connection between public, private, and external partners.

iii. Gaps and Opportunities

Emphasis on self-care enabling access and support, not removing people from care

Enabling choice and enhancing self-advocacy allows individuals to make decisions that feel right for them. Because no single method is recommended to every individual, it is advisable for the health sector to offer a range of choices for interventions. A key feature of self-care is the opportunity for individuals to be agents of their own health in partnership with providers who are able to support them where necessary.

Opportunities to include self-care in essential healthcare packages

When self-care services are delivered in safe and appropriate ways, they can be included as part of healthcare packages that are designed to support individuals and allow them to access the services they require.

Generate demand for self-care

Before self-care is recommended, it is important that there is evidence for its safety and efficacy and, even more significantly, that individuals are clear on the use and benefits of self-care. Generating demand includes health communication, promotion, and engagement to enable, inform, and empower individuals and communities to use self-care services.

Summary

The WHO recognizes the value and potential contribution of self-care interventions within health systems (1). Self-care can add value by enabling choice and giving people autonomy over their health, linking them to care when needed and supporting those who experience barriers to obtaining care. Understanding the costs and conceptualizing suitable ways of financing self-care are critical for moving self-care forward, contributing to sustainable, acceptable, and affordable care for individuals and communities. Cost and financing considerations for specific self-care interventions are important. They must be fully captured to support decision-makers in understanding their cost-effectiveness and value for money within the health system, as well as how these interventions can be scaled up and financed in ways that support progress toward UHC.

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Annexes

A case report on financing HIV self-testing in Malawi and South Africa toward achieving the 95-95-95 targets

Introduction

In 2020, UNAIDS announced an ambitious new goal for HIV/AIDS diagnosis and treatment, 95-95-95, calling for 95 percent of all people living with HIV to know their HIV status, 95 percent of all people with diagnosed HIV infection to receive sustained antiretroviral therapy, and 95 percent of all people receiving antiretroviral therapy to have viral suppression by 2025 (1). The previous 90-90-90 targets were widely accepted and largely successful for driving up HIV testing, with several countries already achieving these targets (2). HIV self-testing has the potential to impact the first "95" of the UNAIDS target. HIV self-testing is one of the more widely implemented self-care interventions in Africa to date (3).

HIV self-testing has formed part of many countries' HIV care strategies and has been used to inform the implementation of other self-care interventions within sexual and reproductive health (SRH). In some contexts, HIV self-testing has begun taking over conventional testing for screening, case finding, and enhancing linkages to care for HIV treatment (4). Financing for HIV self-testing in low- and middle-income countries (LMICs) has primarily been donor-funded and is often not financed by governments (5). There is potential benefit for self-testing to be financed domestically, and such spending is likely to be cost-effective (5-7). Despite limited evidence on models for financing self-care domestically, there is potential for countries to develop and implement supportive policies toward sustainable financing for HIV self-testing.

HEARD held case interviews with representatives from Family Health Services (FHS) in Malawi and Population Services International (PSI) in South Africa to gain an insight into the economic context for HIV self-testing, noting key similarities and differences in financing, health impact, and the future financing for HIV self-testing aligned with the 95-95-95 targets. FHS Malawi is a local organization that supports programs within HIV/AIDS and sexual and reproductive health. FHS is a long-time implementation partner of Malawi's National Strategic Plan, with HIV/AIDS being one of the key implementation areas. PSI South Africa works in partnership with public and private funders to support equitable and sustainable public health services. Within HIV/AIDS, PSI South Africa works to "catalyze the market for HIV self-testing in South Africa" and "positions self-testing as an innovative approach that allows clients to access testing at their convenience, ultimately increasing access to the services." (8)

From external to local: How Malawi and South Africa are steering toward domestic financing for HIV self-testing

In Malawi and South Africa there is a high level of agreement between national policies and WHO guidelines for HIV self-testing, as well as acceptance of global policy frameworks. In both countries, HIV self-testing has become a modality used to expand access to those who experience difficulties obtaining care, including hard-to-reach and test-averse populations (9-11). Malawi is recognized for adopting progressive policies that provide guidance for multi-sector engagement on HIV treatment and prevention. Malawi's National Strategic Plan for HIV and AIDS (2020-2025) offers a renewed commitment to advancing HIV care, with a focus on strengthening leadership and governance and improving financing for scaling up interventions for HIV/AIDS (12). The new guideline includes plans to "initiate dialogue with government, civil society and partners to increase domestic investment for essential HIV prevention, sexual and reproductive health according to Global Prevention Coalition commitments as well as to advocate with national parliament to gradually increase domestic financing for the HIV and AIDS programs" (13).

In Malawi, HIV self-testing is still primarily donor funded. According to representatives at FHS, bilateral cooperation between local and external partners is what drives self-testing initiatives. A representative said: "Self-testing for HIV is still a novel intervention and is primarily being pushed by donors…The government embraces the external assistance. The budget for commodities [HIV test kits] and distribution is supplied by donors, for example USAID and UNFPA. The Ministry of Health and its implementation partners are responsible for the work 'on ground.' The MOH takes responsibility for the roll-out." In Malawi, external partners contribute more than 60 percent of total health expenditure, and approximately 95 percent of HIV/AIDS expenditure (13).

While Malawi has experienced challenges with domestic financing for health, FHS believes that the MOH has been able to demonstrate accountability for resources and continues to implement systems and that strengthen and support HIV self-testing programs. The government endeavors to strengthen financial systems and capacity toward local financing for HIV/AIDS programs through increased budget allocations for health over the long term. A representative from FHS said: "Malawi has created a conducive space for self-testing to roll out. The policies are in place and self-care is high on the public health agenda. The importance is clear, and there is political buy-in for these interventions to be implemented. The next step would be to begin funding self-care domestically."

The South African government has made direct investments in HIV programs and has continued to receive funding support from external funders, including The Global Fund and the United States President's Emergency Plan for AIDS Relief (PEPFAR) (5). HIV/AIDS programs account for a significant share of South Africa's health budget, and while South

Africa has continued to increase national spending for HIV interventions, funding from major donors has declined simultaneously (13). The South African HIV Investment Case was established to determine the most cost-effective mix of interventions to improve the allocation and efficiency of HIV/AIDS funding (14). HIV self-testing has been central to South Africa's HIV care strategy and has played a role in South Africa's progress toward the UNAIDS 95-95-95 targets (5). South Africa is one of the few countries that procures HIV self-testing kits through their national budget (15).
"There is a clear 'use case' for HIV self-testing in South Africa. There is a strong evidence base of cost-effectiveness research and different models for distribution and scale-up. There are models that include both the public and private sector involvement," stated a representative from PSI South Africa. "The public sector is fairly limited in terms of provision of self-test kits. Last year the government directly funded around 200,000 test kits – a small amount compared to the need." The representative continued: "The private sector in African countries is expanding, for example in Uganda, Nigeria, and Tanzania. Private sector models can be quite successful for self-care and [have] the potential to influence costs for manufacturing and making self-testing more affordable."

The private sector has played a significant role in the development and scale-up of HIV self-testing, with two major manufacturers for self-testing kits based in South Africa. Local production of self-testing kits has drastically reduced the overall cost of producing and distributing kits, minimizing costs related to import tax and clearance costs. "HIV self-tests are becoming more and more affordable," said a PSI representative. "Pricing has been assessed and analyzed based on consumer willingness to pay. The opportunity costs are often recognized in terms of time saved and the ability to test oneself independently." HIV self-testing in South Africa presents an opportunity for early case detection and linkages to care. Through various models, HIV self-testing has been made widely available within healthcare facilities, through community distribution channels, and in private retail environments (15).

The future of HIV self-testing and the road to 95-95-95 for Malawi and South Africa

As countries in Africa move toward the 95-95-95 targets, HIV self-testing may continue closing the gap for undertested populations. In discussions with FHS Malawi on the future of HIV self-testing, the team made the following remarks on financing considerations moving forward:

- While the Ministry of Health in Malawi is largely responsible for the provision of healthcare services, the majority of funding for HIV self-testing is still driven by donors. Concerns around limitations in public financial management means a significant proportion of donor funds to the health sector is directly channelled to implementing partners (12). The MOH continues to work to strengthen financial

capacity to effectively manage funding and improve budgetary mechanisms for HIV service provision.

- The public sector is the largest provider of health services in Malawi, however approximately 40 percent of services are provided by private actors (16). The role of Malawi's private sector has increased in recent years in both the private for-profit and private not-for-profit sectors. Many private facilities offer HIV services, including self-testing, which may be obtained by users at a fee. There are opportunities for private-public partnership to expand access through improved distribution channels.

- HIV Self-testing in Malawi is promoted as a service that can be done at home or at health facilities, focusing on enabling choice and providing better linkage to care for users. A key focus of self-testing is the cost impact on end-users. Cost shifting needs to be closely monitored so as not to inadvertently disadvantage the user.

In discussions with PSI, the following points were made regarding the future of self-care financing in South Africa:

- The South African government has made direct investments in self-care. However, guidance for self-testing from the National HIV Testing Services Policy (2016) calls on both the public and private sectors to drive progress toward improved testing coverage. Developments within the private sector have led to improved manufacturing and supply chain for self-testing products, reducing cost prices for self-test kits through local manufacturing and distribution

- The use of digital health interventions is an emerging strategy that may have useful implications for self-care. Digitally-supported HIV testing using "digital companion" or "chat bot" functions may offer accurate information for users, improve case finding, and link people to care and treatment for HIV. Buy-in for digital health interventions in South Africa is fairly low. Demonstrating cost-effectiveness of these tools may be useful for future implementation.

- Key considerations around costs for HIV self-testing take into account costs for manufacturing and supply chain, costs of labor for distribution, and the investments for demand creation and health promotion. Moving forward, a long-term goal for HIV self-testing in South Africa is to reduce the cost price for the user to under $1 per test, using delivery models that are cost effective and sustainable. Private sector distribution (pharmacy and retail environments) appear to be most promising for improving access and coverage for HIV self-testing.

Read more about the work of FHS Malawi and PSI South Africa here: https://www.fhs.org.mw
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A case report on self-managed abortion: Implications for costs and financing amid restrictive laws and policy limitations in Nigeria

Introduction

Abortion in Nigeria is restricted to cases where it is necessary to save or preserve a woman's life (see box 1). Nevertheless, Nigeria experiences a high number of abortions each year, driven by an overall low rate of contraceptive prevalence and a high number of unintended pregnancies among women of reproductive age. It is estimated that approximately 1.8-2 million abortions occur each year (1). The restrictive legal environment and a lack of supportive policies lead to many of these abortions taking place outside the formal healthcare sector and without the support of healthcare providers. Evidence suggests that the restrictive policy environment has negatively impacted the safety of many abortions. Of the near 2 million abortions that occur every year, it is estimated that more than 60 percent of them are unsafe (2).

As part of a case study focusing on costing and financing of self-care services in Sub-Saharan Africa, the HEARD Institute at the University of KwaZulu-Natal engaged with Ipas Nigeria to understand the economic context of abortion care in Nigeria, the costs for the health system, and implications for financing abortion services within the current policy limitations. Ipas is a global organization that works to advance reproductive justice, partnering with countries across Africa, Latin America, and Asia to enhance access to comprehensive abortion care (CAC) and voluntary contraception (VC) to individuals and communities. Since 2000, the Ipas Nigeria Health Foundation has worked to increase community access to essential sexual and reproductive health services and advocate for policies that promote women's health, protect their rights, and enhance their access to quality SRH services including family planning and abortion care. Ipas has worked alongside the Nigerian government in developing the Violence Against Women Prohibition Act and Safe Termination of Pregnancy (STOP) Guidelines and defining conditions for abortion restrictions within the existing national law.

"Self-managed abortion has become the primary choice": Women's preferences for abortion care

In Nigeria, medication abortion is preferred over surgical methods for reasons of availability, accessibility, and perceived effectiveness for ending early pregnancy (3). Evidence supports the use of mifepristone and misoprostol in ending pregnancy up to 10 weeks' gestation (4). Since 2006 and 2014, respectively, mifepristone and misoprostol have been listed on Nigeria's Essential Medicines List. However, within the public sector, the medication can only be accessed under strict conditions (see box 2). Women who require abortion services but do not meet specific criteria have to access services through the private sector (at a high patient cost) or utilize the informal sector to access the medication they need. For the majority of women,

abortion medication is primarily obtained through medicine vendors, either private pharmacies or colloquially named "drug sellers," who are the main proprietors of medication containing misoprostol.

In Nigeria, both public and private sector pharmacies are highly regulated, and as such, the supply of misoprostol, particularly in the public sector, is limited and requires a prescription from a healthcare provider. Drug sellers, on the other hand, are defined as "patent and proprietary medicine outlets without formal training in pharmacy who sell orthodox pharmaceutical products on a retail basis for profit." Drug sellers are able to provide a broad range of sexual and reproductive health services, including contraception, in-pregnancy care, and post abortion care, in addition to treatment and care of minor diseases and injuries. Drug sellers play an important role in supporting self-care services for SRH such as family planning services and medication abortion. In both the private and informal sectors, the price of medication is regulated by the vendors and often incurs high out-of-pocket costs for the user. Drug sellers are able to obtain and sell drugs that can be procured without a prescription.

Studies have reported that women prefer making use of drug sellers based on availability and access and some studies report that some drug sellers are able to provide appropriate dosages and side-effect information on medication administered (5). However, other studies on women's experiences when obtaining medication have found that some drug sellers have limited knowledge on medication, including information on dosage, and clear instructions for use. In some cases, they sell medication without packaging or patient information leaflets (6). From a "quality of care" perspective, there is a need for regulations to guide the provision of abortion services to ensure safety and efficacy of the drugs administered to women. Ipas believes that there is an opportunity to work together with drug sellers to improve the quality of services provided to women for a broad range of SRH services, including abortion, in line with the harm reduction approach.

"Women will choose options they can afford": Cost implications for self-managed abortion

Women who require abortion services and are eligible to receive them within the public sector will be able to access these services at either low or no cost to the patient. However, the cost of abortion services occurring outside the healthcare sector is often paid for by the woman accessing the services. The type and quality of abortion services offered are primarily determined by: the provider or supplier of the abortion services (e.g., pharmacies, local drug vendors); whether services are accessed in or outside of healthcare facilities; and the sector under which services are provided (i.e. public or private). Typically, abortion services are paid out-of-pocket and medicine vendors are at liberty to price medications according to retail profit margins. In the economic context of Nigeria, where less than half of the population is gainfully employed, Ipas estimated around 80 percent of women would not be able to afford safe abortion services, stating: "The high cost of drugs drives women to use unsafe methods.

Women will find a way to terminate an unwanted pregnancy. In most circumstances they are undeterred with the policies and laws."

When safe methods for abortion cannot be accessed, the risk of women resorting to unsafe methods increases. A representative from Ipas stated: "In some cases, women will take a 'potion,' a mix of unregulated drugs that are affordable to them. This information can be shared socially, by word of mouth. The safety of women is in the hands of drug sellers and the knowledge of those administering the medication." Working to identify the access points where young women are obtaining drugs and making sure there is knowledge, education, and linkage to care in the case of complications is a large part of the work done by Ipas, whose representative said: "[Our] first port of call is harm reduction for patients within the existing restrictive laws. Women continue to access and obtain drugs for abortion. It should at least be safe."

"The health system ultimately pays the price of unsafe abortion": The future of financing for abortion care

There are few published studies that explore how abortion care is financed in Nigeria. Both the reality and implications of the legal restrictions on abortion lend themselves toward unsafe abortion and the consequent complications that contribute to maternal morbidity and mortality. Given that abortions in the public sector are only financed under strict conditions, there is limited recognition of the economic consequences of unsafe abortion, with government having to bear the costs of managing post-abortion complications. International organizations like Ipas have advocated for increased access to comprehensive abortion care to prevent unnecessary hospitalization or even death following unsafe abortion. Ipas believes there will be a turning point in regulatory law as the burden of post-abortion complications is slowly being acknowledged by government. Ipas stated: "[We are] working with public and private sector development to strengthen health systems and community-based structures for demand generation for safe abortion and contraception. [We are also] working with law enforcement to train police officers on stigma on abortion care, to reduce barriers to access to services and [provide women with] social support for access to services."

Read more about Ipas and their work here: https://www.ipas.org/where-we-work/africa/nigeria/

Box 1: Laws on abortion in Nigeria

Abortion in Nigeria is governed by two laws that differ depending on geographical location. Northern Nigeria is governed by the Penal Code and southern Nigeria is governed by the Criminal Code. Under both codes, abortion is permitted to protect the physical health and life of a woman – in which case, safe abortion services may be provided within the full extent of the law.

Box 2: Excerpt from Nigeria's Essential Medicines List (2020)

16.10 For Management of Incomplete Abortion and Miscarriage

Mifepristone + Misoprostol (Restricted)

"Particular note should be taken of medicines in the complementary (restricted) sections which indicate medicines which should only be prescribed by Specialists after thorough evaluation/assessment of patients."

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A case report on self-injection for subcutaneous depot medroxyprogesterone acetate (DMPA-SC) in Senegal: Enabling choice for hormonal contraception

Introduction

While the percentage of women using modern contraceptives in Senegal has been increasing steadily over the years, total contraceptive prevalence across the country has remains relatively low (1). At the same time, the fertility rate in Senegal remains as high as 4.5 births per woman (2). The unmet need for family planning and contraceptive services among women of reproductive age is driven by a lack of knowledge on family planning methods, concerns about the side-effects of contraceptives, and limited supply and low quality of family planning services (3). Injectable contraceptives, including the self-injected subcutaneous depot medroxyprogesterone acetate (DMPA-SC), are the most widely used contraceptive methods in Sub-Saharan Africa, with an estimated 16.5 million users across the region (4).

Available under the product name Sayana Press®, DMPA-SC is an easy-to-use, low dose injectable that is effective for managing fertility and preventing unplanned pregnancy in women of reproductive age. Since 2001, PATH Senegal has been working alongside the national government to increase the uptake of family planning services by generating demand and strengthening health systems to be able to provide effective and quality care for women. PATH has played a key role in piloting and implementing interventions for DMPA-SC, offering women an additional choice of contraception at a similar cost to other family planning methods. The HEARD Institute at the University of KwaZulu-Natal engaged with PATH Senegal to understand the economic context of family planning services in Senegal, focused on self-injection of DMPA-SC and its costs to the individuals and the health system.

The PATH to DMPA-SC: From pilot to scale-up

DMPA-SC is widely used across the globe. DMPA-SC differs from the earlier developed DMPA-IM that it is injected intramuscularly into the upper arm or buttocks, usually by a healthcare provider. Both injectables contain similar active ingredients but differ slightly in formulation and mode of administration. DMPA-SC is available as a product called Sayana Press®, which was originally developed by PATH for women to be able to self-inject (figure 1). The product is available in more than 50 countries worldwide, and as a self-injection in 35 of these countries. A substantial investment has been made to develop policies, scale-up resources, and expand DMPA-SC programs in Senegal. A PATH representative said: “The biggest cost in this exercise has been to develop the guideline [and] fund years-long policy-development workshops, identifying stakeholders, and [improving] the policy landscape.” Another representative added: “[A lot] of advocacy, strategic and technical work has gone into this, to [develop] a national action plan takes plenty of time.”

Piloting for DMPA-SC commenced in 2015, with a focus on acceptability, usability, and cost-effectiveness for this intervention. Studies have reviewed the acceptability of DMPA-SC as a self-injected method and findings have confirmed that women prefer self-injected methods over health worker-administered methods (5). Within the same studies, women report that the use of DMPA-SC led to fewer side-effects with similar effectiveness as other contraceptive methods. Costing studies have reviewed the relative costs of delivering DMPA-SC under different distribution strategies, including via healthcare facilities, under community-based strategies, and under self-administration. Findings show that the total costs of DMPA-SC administration were lowest for community-based distribution, with direct non-medical costs being lowest for self-injecting women (6). Relative to health outcomes, self-injected methods for DMPA-SC could prevent an additional 1402 unintended pregnancies and avert 204 disability-adjusted life-years (DALYs) in a hypothetical cohort of 100,000 injectable contraceptive users (7).

Since 2017, DMPA-SC has been offered across all levels of health facilities and as of 2018, DMPA-SC has been implemented at scale. A representative from PATH Senegal stated that the scale-up for DMPA-SC has been made possible by the willingness, involvement, and cooperation of the MOH and other key stakeholders to expand these services. "The government is involved at a high level," the representative said. "We [at PATH] have done consultations and have worked closely with decision-makers, civil society, and healthcare workers to understand the existing work on self-care, [together] with the Ministry of Health (MOH), bringing all [sectors] together to build on this self-care work in Senegal."

In 2020, PATH launched the Self-Care Pioneers Group, which has been involved in developing national self-care guidelines and leading advocacy for the inclusion of self-care in national health policy. PATH is optimistic about the future of DMPA-SC in Senegal. With the support of the MOH, PATH aims to increase contraceptive prevalence from 26 percent in 2021 to 46 percent in 2025 by improving access to a wider range of modern contraceptives that are effective, affordable, and accessible to the population.

DMPA-SC as a value-for-money alternative: Enabling choice for contraceptive methods

Enabling women to access their preferred method of contraception is likely to lead to improved contraceptive prevalence over time (8). Research suggests that there are two ways to increase uptake of family planning services in settings with low contraceptive prevalence: first by extending the availability and improving the features of the current contraceptive methods available; and secondly by introducing new methods that will improve the ability to meet the individual needs of women who require contraceptives. Studies show that providing one additional contraceptive method to at least half of the population correlates with a 4-8 percent increase in contraceptive prevalence (9). However, this is also contingent on factors such as accessibility and user costs. From a costing perspective, cost differences between

contraceptives are regulated nationally, and co-pay for most contraceptive methods is priced at around 300 CFA for the user. According to members of PATH: "At first contact with the health system women get to choose a method that will not be influenced by the price. We believe most methods are affordable for women who require contraceptives."

Ensuring that women choose a method they feel is right for them without cost being a factor in the decision is likely to increase uptake of family planning services. However, despite DMPA-SC being offered as an additional choice of family planning method, there are still a number of barriers that limit uptake of self-injected methods. A PATH representative said: "Although DMPA-SC costs the same as other contraceptive methods like the pill, less than a [US] dollar…for some reason women are not choosing this option." The representative continued: "Costs [for contraceptives] for the user is not an issue. It all costs the same. It is the choice of method that is different." Some barriers that influence decision-making for DMPA-SC include a general lack of information on self-injection, concerns around negative side-effects, stigma around contraception use, and a lack of trust in family planning services.

PATH has also recognized that there is a relatively low demand for DMPA-SC, likely influenced by a lack of knowledge of this type of contraceptive method. "Our strategy plan is to create demand in facilities for self-injection, but there is a complex problem of quality of services, opportunity costs, and [willingness to pay for] DMPA-SC," said a PATH representative. PATH has continued to focus on advocacy for DMPA-SC with a long-term perspective, supporting the MOH to generate demand for services and to better understand choices for family planning and barriers to accessing these services.

The future of DMPA-SC: A way forward

There has been a substantial investment in rolling out and scaling up DMPA-SC in Senegal. However, despite recording some major successes, critical challenges remain. Family planning services in Senegal are primarily funded by external donors, with national government taking the lead on establishing the supply chain, distributing products, and training the health workforce to use and administer DMPA-SC. A significant barrier to women accessing DMPA-SC is that the injection is only available from healthcare facilities and, as cost studies show, incurs the highest cost per injection distributed (10).

PATH is working with the MOH on a strategy plan to increase the uptake of DMPA-SC through community distribution channels, with options to improve access to DMPA-SC through registered pharmacies and other community outlets. "Our work currently is focused on a strategy plan for creating demand within facilities and outside facilities for self-injection," a PATH representative said. "There [are] options to work with the Ministry of Education and national pharmacy networks that have diverse interest in self-care." Advocacy for self-injection continues to be a strategic priority. A focus on sharing evidence to inform policy

changes, connecting with key role players, and engaging civil society to make choices on family planning are important ways to approach challenges to service uptake. A policy goal is to enhance community distribution models of care to improve access and uptake of DMPA-SC to move toward national family planning goals.

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Figure 1: