Self-care interventions for women's health and wellbeing

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Abstract

The human right to health is universal and non-exclusionary, supporting health in full, and for all. Despite advances in health systems globally, 3.6 billion people lack access to essential health services. Women and girls are disadvantaged when it comes to benefiting from quality health services due to social norms, unequal power in relationships, lack of consideration beyond their reproductive roles, and poverty. Self-care interventions, including medicines and diagnostics, that offer an additional option to facility-based care, can improve autonomy and agency of women in managing their own health. However, tackling challenges such as stigma is essential to avoid scenarios in which self-care interventions provide more choice for thosewho already benefit from access to quality health care, and leave behind those with the greatest need. This article explores the opportunities self-care interventions offer to advance health and well-being of women with an approach grounded in human rights, gender equality, and equity.

Introduction

The human right to health is universal and non-exclusionary. It's not a right to some health for some – but to health in full, and for all. Yet the global footprint of health access today falls far below that standard, with half of the world's population lacking access to essential health services[1]. This is especially true for women living outside the reach of government-administered health systems or pushed into extreme poverty because of healthcare that is overpriced, under-resourced, and ill-equipped to meet their needs, priorities, and rights. Against global and regional contexts, in which Member States' promises to human rights in and through health are widespread but unevenly fulfilled, innovations in healthcare are urgently needed. The term 'women' covers an inclusive approach to all women, girls and gender-diverse individuals across their life course and a diversity of lived experiences, including but not limited to individuals with disabilities, those experiencing homelessness, those undergoing incarceration and/or institutionalization, displacement due to wars and conflicts, living with HIV, Indigenous individuals and those belonging to minority, racial or ethnic groups.

Self-care interventions are among the most promising strategies to improve health coverage for women worldwide. During the COVID-19 pandemic, the prioritization of access to self-care interventions – such as over-the-counter multi-month contraception through pharmacies, or telehealth counselling during pregnancy – across countries spanning the income spectrum – clearly demonstrated the ability of women who did not have formal health training to take measures to manage their health and protect themselves[2]. However, access to quality self-care interventions needs to move beyond being a response that is considered only during times of crisis and global emergencies, to one that becomes an integral part of routine health care. Calls for greater emphasis on self-care interventions as additional options to health facility-based care led to the development of a global normative guideline by the World Health Organization (WHO), with evidence-based recommendations relevant for every economic setting[3].

In this Perspective, we explore the scope of self-care interventions with the potential to improve the health and well-being of women in the context of a safe, supportive, enabling environment. We explore the barriers that currently limit this potential and outline strategies to sustainably integrate self-care interventions into health systems, building upon examples of WHO evidence-based recommendations.

Scope of self-care interventions

Self-care existed well before the establishment of modern health systems[4]. Across the world, people engage in self-care to promote and maintain their health, to prevent disease and to cope with illness and disability, sometimes with and sometimes without a health or care worker[5] . Which practices people can and do choose to engage in, for themselves or for those in their care, is heavily context dependent. Factors such as health literacy, access to information, the social environment and individual or family agency all play a role. For instance, improving health literacy in populations provides the foundation for citizens to play an active role in improving their own health, to engage successfully with community action for health, and mobilize governments to meet their responsibilities for health and health equity. Fundamentally, improving health literacy enables people to better interpret, understand and act on health information for better self-care.

Self-care interventions are the first point of entry for (i) engaging people and communities to take an active role in their health and their health services; (ii) supporting integrated health services that meet the needs of individuals and communities across their life course; and (iii) people-centered multisectoral policy and action, to address broader determinants of health – three aspects that are the foundation of primary health care and the cornerstone of resilient health systems[6,7,8,9]. Self-care interventions are also relevant across the life course of women to improve their overall health trajectory (**Table 1)** and cover a range of health topics, including sexual and reproductive health(**BOX 1**).

The WHO definition of self-care and self-care interventions is supported by a conceptual framework (**Fig 1**)[10] that places people at the center, both in their role of caring for themselves and in their role as caregivers. The framework aims to ensure that all individuals, including those who may fall through the cracks of existing health systems, are considered by policy makers and implementers planning the promotion, introduction and scale-up of quality, self-care interventions to improve coverage and equity.

Although women have been self-managing their own health, the development of health products such as modern contraceptives and digital health interventions such as telemedicine have transformed the landscape of their health and rights and their ability to make informed decisions about their own priorities and needs[11,12, 13,14]. The past two decades have seen the accumulation of strong evidence on the potential of self-care options for a wide range of health conditions, including sexual and reproductive health (SRH)[15], chronic diseases,[16] mental health[17], and more recently COVID-19[18]. Strong evidence exists regarding the effectiveness of self-care strategies such as diet and exercise, in supporting various individual, family-based, and community-based approaches in, for instance, cardiovascular treatment plans.[19] Sexual and reproductive health is another area where self-care interventions have enormous potential. Although not exhaustive, the following sections provide an overview of the scope of self-care interventions in these key areas of women's health.

Healthy behaviours and lifestyle

Health practices, behaviours, capacities, and decisions are framed by the context of the lives of women[20]. Women with hypertension or preeclampsia during pregnancy have more than double the risk for a future diagnosis of, or death from, cardiovascular or cerebrovascular disease than women who do not have these conditions during pregnancy[21], [22]. Maternal obesity increases the risk of children developing cardiovascular risk factors and disease at a younger age [23]. Consequently, self-care actions such as not smoking, avoiding obesity, being physically active, and eating a heart healthy and low-sodium diet, can help women to reduce or avoid non-communicable diseases across the life course[24]. However, not all women have access to such interventions, nor the resources to commit and adhere to the recommended self-care practices. For instance, nutrient increases, such as fruits, vegetables, or fiber may be too expensive or unavailable for low-income mothers[25,26]. Further, women have varying perceptions of health risks that shape their values and preferences toward, and ability to engage in, self-care. For instance, older women can be at risk of multimorbidity with a range of co-occurring, interacting conditions such as arthritis, hypertension, and diabetes, each of which require different self-care actions[27,28]. Living with more than one chronic illness can also reduce the ability to monitor and differentiate the cause of a particular symptom[29]. Approaches to prevention, treatment and healing are also socially and culturally different among diverse societies and populations[30].

Contraception

In Uganda (see **Box 2**) and several other countries in the Africa region, there is evidence of benefits for women and adolescent girls regarding self-administration of injectable subcutaneous depot medroxyprogesterone acetate (DMPA-SC, a contraceptive)[31,32,33,34]. Research employing different study designs (including a randomized control trial) consistently finds that women who are trained to self-administer DMPA-SC and provided with units for home use have improved adherence and reduced expenses because of fewer resupply trips to health facilities — making self-injection a cost-effective intervention[35,36]. Cost and convenience are of particular benefit to women living in remote, rural areas, for whom travel costs are high and visiting a health facility may require a full day[37,38].

Self-injectable DMPA-SC also offers the potential for enhanced privacy by reducing visits to public facilities where discreet users risk discovery. Whether self-injection is privacy enhancing for a woman or adolescent depends on her degree of agency and privacy in her home. Considering the benefits of offering women this choice, nearly 30 countries ,including Uganda, are currently introducing or scaling up provision of self-administered DMPA-SC, per WHO recommendations.[39]

Nevertheless, while self-injection may advance women's self-efficacy and autonomy, women who already possess agency may be better able to take advantage of self-care services, raising the question of how to improve access, particularly for those with limited agency and autonomy[40]. Also to note,

self-injection of DMPA-SC often requires an upfront investment of additional healthcare provider time to train clients and/or client training materials. Health system cost savings are not always immediate; and savings could potentially accrue over time if the client continues to practice self-care with limited provider support[41].

Sexually transmitted infections, including HIV prevention and treatment

Young women in sub-Saharan Africa bear a disproportionate brunt of the global burden of HIV infection[42]. Their risk of infection arises primarily from age-sex disparate relationships with men on average 7-11 years older than them being the primary source of infection[43]. Notwithstanding gendered power disparities that influence these sexual relationships, the available HIV prevention technologies favour men.

The development of women-initiated discreet prevention technologies was a long and slow road marked with many failures[44,45]. However, the rapid expansion of simple, near-patient care and self-testing has created an opportunity to enhance access to quality prevention and treatment services. This is particularly salient in resource-limited settings where there are numerous barriers to laboratory-based testing and limited access to health services, that notably impact women more than men. Use of point of care (POC) STI testing has led to prompt management and clearance of sexually transmitted infections[46,47] and task sharing to women and community support workers and away from more formal health centers and clinicians. HIV self-testing has contributed to countries' efforts to support women, including female sex workers and women living in humanitarian settings, to learn their HIV status and access treatment if needed[48],[49].

Currently, daily oral tablets of tenofovir in combination with emtricitabine pre-exposure prophylaxis (PrEP) are widely available to the public in most primary health care clinics in sub-Saharan Africa. Yet uptake is modest and persistent use over 12 months is limited[50,51]. Community empowerment programmes have been central to supporting key populations at high risk of HIV to achieve prevention and treatment objectives and there is some evidence of increasing uptake in young women when PrEP is offered through mobile health services and peer outreach[52,53]. Evidence-based strategies to increase uptake and adherence among populations at risk of HIV are urgently needed if we are to realize the full potential of these new technologies, and meet the UN 2030 goals to end AIDS as a public health threat. Policy, access, and affordability are still barriers expansion to PrEP options, including the monthly dapivirine ring and cabetogravir injections. Urgent attention is needed to shorten the time from evidence to action for HIV prevention technologies.

Self-testing for HIV and POC STI testing provide important entry points to reach underserved communities, including young women[54]. For women living with HIV on antiretroviral treatment, point of care viral load monitoring and multi-month treatment dispensation has enhanced rates of therapeutic success[55,56]. The use of novel POC drug level testing is also being utilised for enhancing adherence through targeted adherence support[57]. However, there remains limited evidence on self-administration of these monitoring tests and self-care for these conditions in resource limited settings, particularly for women.

Barriers to implementation and scale-up of self-care interventions

Human systems, including health systems, are hardwired for self-replication; if we do not learn from past mistakes, promising new self-care interventions may suffer the same fate as many other interventions in providing more choice for the few who already enjoy the most, and little to nothing for those who live with the very least. The way health systems have been established has created power hierarchies that disadvantage underserved individuals and communities. Innovations in care largely benefit those living in socio-political contexts that support access[58]. This is particularly relevant for sexual and reproductive health, which is an area that is too often policed and politicized. For millions of women and girls affected, the restrictions placed on their access and rights to sexual and reproductive health services will influence their negotiation of relationships, their mental, physical, health and well-being, and will impact their agency and choices throughout their lives[59]. The combination of increasing numbers of people living in multidimensional poverty and the deeply personal nature of sexual and reproductive health calls for a need to improve equitable access to

quality products, information and services as key to creating well-functioning, people-centred health systems.

Costs to users of self-care individuals

If costs to users are considered, including out-of-pocket expenditures, financial protection schemes for self-care interventions can improve equity and efficiency[60]. In Malawi, for instance, people who self-tested for HIV did not incur financial costs, did not need a family member to accompany them, and did not need to take time off work[61]. However, there are a range of out-of-pocket costs to meet self-care needs of women that are often not factored in health systems approaches. This includes the costs of purchasing menstrual hygiene products, including single-use pads, tampons, or menstrual cups.[62],[63] In some instances, provider payment systems, which tend to follow a fee-for-service structure, are likely to directly disincentivize the uptake of self-care interventions. However, individual providers and professional associations can enable the introduction and promotion of self-care technologies if they consider these tools as valuable and non-harmful for clients[64].

Failure to promote women-initiated methods

Voluntary use of contraception is a crucial enabler of women's reproductive rights. Women's contraceptive choices are complex, changing, and multifactorial and in turn, decision-making involves trade-offs among different available options. Self-care interventions such as home pregnancy tests and self-management of medical abortion with mifepristone/misoprostol (where legal) have been successfully adopted in certain settings[65].Other practices, despite demonstrating efficacy, have not been successfully taken up and used widely. The female condom is an example of a product that has not benefited from strategic and sustained introduction, donor support, marketing and financing programmes (**BOX 3**)[66]. In 2015, female condoms made up only 1.6% of total global condom distribution, despite being at least equal to the male condom in protecting against unintended pregnancy and STIs, including HIV, and furthermore contributing to women's sense of empowerment, especially if supported by education and information[67,68,69,70 71].

Health and care workers play a key role in ensuring access to interventions, such as emergency contraception. All women and girls at risk of an unintended pregnancy have a right to access emergency contraception and these methods should be routinely included in all national family planning programmes[72] . During the past decade, there has been a rise in inclusion of emergency contraceptives on national essential medicine lists (NEMLs)[73] but policies supporting access are uneven. Surveys of providers in India, Nigeria and Senegal indicated that significant gaps exist in attitudes to, and knowledge of, emergency contraception.[74], [75] For example, the majority of respondents were in favour of requiring a prescription to access emergency contraception and many opposed advanced provision. The survey also found significant variability in providers' access to information and training on emergency contraceptive pills. Detrimental practices include providers withholding information about emergency contraception or even refusing to provide it. Such refusals obstruct women's rights to receive complete information about contraceptives and access to interventions and highlight the need for additional training and sensitization of service providers as well as supportive policies.

Stigma affecting women's health decision-making

Social processes of devaluation and exclusion reduce access to resources, power, and opportunities, include reducing access to, and engagement with, health systems, services, and supplies[76]. Offering choice in health decision-making that is free of coercion, violence, stigma, discrimination and undue social interference is critical for improved health outcomes.

Stigma towards certain communities of marginalized women, such as those experiencing homelessness, is especially acute at individual, structural, and institutional levels[77]. Some drop-in centers provide only a few menstrual pads at a time, requiring women to make repeated trips during menstruation[78]. If an adolescent girl wants to access a pregnancy test, she may fear devaluation, judgement and blame for being a sexually active young person. Stigma by health workers toward young and/or unmarried women can include confidentiality breaches in a small community[79]. A pregnancy self-test may help to mitigate healthcare stigma, yet an adolescent girl would still need to

purchase the kit and could experience enacted stigma in a pharmacy or other place of access. If the pregnancy test is positive, this would similarly require considerations of anticipated and enacted stigma from family, friends, a community or partner, and even structural stigma if she is not allowed to continue secondary schooling due to pregnancy[80].

Furthermore, stigma does not stop at adolescence. From perimenopause to menopause, when the end of a woman's reproductive cycle can usher in night sweats, hot flashes, insomnia, hair loss, anxiety, heavy bleeding and low sex drive, self-care interventions such as lubricant use for vaginal dryness can be beneficial. However, a lack of awareness and stigma around menopause and sexual health of older women can lead to poor quality care. This can include an unwillingness of health insurance companies to cover costs of lubricants, that could both enhance healthy sexuality and prevent urinary tract infections[81],[82].

Power inequities limiting self-care options for women

Applying an intersectional approach is critical to understanding how power inequities shape women's experiences with self-care, including but not limited to gender equity in sexual relationships, socio-economic status, race, ethnicity, sexual orientation, gender identity, sex work, and disability status[83]. To illustrate, power equity in sexual relationships is a key consideration for women's self-care engagement: even after having received training for female condom use, women were not always able to negotiate its use with male sexual partners[84]. Sexual relationship power equity is linked with both increased condom use and reduced exposure to violence among women, thus the intersecting social categories that can increase or reduce this relationship equity are important to consider when promoting self-care practices and interventions to women[85,86].

Contexts that criminalize identities and practices also shape the ability of women to self-care and constrain their sexual relationship power equity. In contexts where sex work is criminalized, evidence shows reduced condom negotiation power and reduced ability to carry condoms—exacerbated for female migrant, transgender, and sex workers who use drugs[87]. In the United States (US), abortion access has been described as a racial justice issue, with racialized minorities less likely to be able to access abortion services from clinics. Survey findings from 7022 women in the US reveal that non-Hispanic Black and Hispanic women were more likely than non-Hispanic white women to have attempted abortion self-management, as were people living below the federal poverty line; reasons for use included ease, speed, and the clinic being too expensive[88,89, 90.] These examples reveal the complexities of implementing evidence-based, effective self-care interventions. In some cases, equitable gender norms in relationships are key barriers or facilitators for self-care (e.g., condom use) while in others, racial and economic disparities in health clinic access may render self-care strategies an approach to mitigate these barriers (e.g., self-management of medical abortion).

Self-care interventions for women hold the potential to disrupt inequitable power relations and lift up dignity for those denied it. Science and evidence back use of many self-care interventions as viable, safe options for women. To reduce the challenges to access, uptake and use of self-care interventions, explicit attention must be paid to ensure appropriate policies, enabling environments and greater justice as much as greater health outcomes.

Health workers attitude affecting women's ability to self-care

Self-care is first and foremost an issue of personal agency and empowerment, with interconnected gender and cultural considerations[91]. Practices of health workers or health decision-makers to either directly inhibit or interfere with effective self-care behaviors occurs in areas such as the disclosure of health information or limiting the health care skills of clients and patients in order to maintain professional control and dependency of women on services. The right of women to practice self-care is irrespective of the economic interests of health professionals. This includes the right to access appropriate technologies and information, that are effective and inexpensive. Amending the way the health workforce views its mandate requires interventions such as competency-based training, to equip health and care workers with the skills and capacity to support self-care interventions[92], [93], [94], [95].

Integrating self-care interventions within current health systems

A health system comprises the organizations, institutions, resources and people whose primary purpose is to improve health. The WHO health system building blocks (**Fig 2**) comprise the organizations, institutions, resources and people whose primary purpose is to improve health[96]. These building blocks are recognized as interdependent and overlapping, coming together to produce four key health system outcomes: better and more equitable health outcomes, more responsive services, social and financial risk protection, and, improved efficiency. A mature monitoring framework, with indicators for each of the blocks is used by countries to assess their health systems[97] and has been widely used to evaluate health system performance, to plan investments, make strategic plans and appraise governance.

Individuals' self-care practices, their capacities to implement these, and the commodities, environment and accountability structures that support these behaviours are critical components of this system but have been consistently undervalued. Despite enormous potential and the fact that most care is provided in the home, self-care remains a neglected element of the health system[98]. Self-care interventions must be an adjunct to, rather than a replacement for, direct interaction with the health system. This may require that the boundaries of the health system be reconceptualized if we are to realize the potential of self-care strategies for health improvement, rights and equity.

The role of social support and carers

Caregiving is at the intersection of many challenges, including: gender roles, duties and expectations; cultural norms and power dynamics; lack of caregiving role models; physical labour; mental health and mental labour; emotional labour; time pressure; poverty; the learning and use of new skills and tools; tension between the identity and the role (caregiver is not who you are but a role you step in and out of – one needs to explore reflexivity, self-awareness, understanding one's purpose); and the need to take time for self-care without feeling guilty/selfish. If all unpaid caregiving was paid at minimum wage, this would account for $11 trillion per year or 9% of global GDP[99]. The majority of all caregivers, formal and informal, are women, and women can positively influence self-care practices by monitoring and facilitating adherence to medications and diet[100]. The societal pressures to take on this role can nevertheless affect women's own ability to self-care and can cause mental and physical strain[101]. For instance, when women combine their role as carers for a member of their family with employment, they often have on the average less free time for their own self-care per day. Health systems must recognize and sustain the role of social support and carers, and the importance of self-care actions in both health maintenance and in coping with ill-health[102].

Paths to policy objectives

Public policies in support of self-care must function to demystify health care, creating enabling environments in which people can more readily promote their health and care for themselves during illness. This implies that the distribution of resources to health care systems must be altered from excessive concentration of disease-oriented, specialized, often expensive and health system-based approaches to health care, towards systems which provide more information and transfer of skills to the clients and patients.

Many policy objectives can be strengthened through support to self-care, including harnessing its health and wellbeing benefits, limiting overmedicalization[103], and protecting constituencies against misinformation and harmful or exploitative practices[104]. These steps are not uniquely about allocation of resources to health systems. Support of self-care also has systemic implications. Equipping women with better skills, confidence, and agency for self-care shifts control of care from health workers to individuals. Therefore, allocation of resources to sectors of education, social services, housing and income maintenance is also needed — which can all contribute to supporting and strengthening of self-care skills.

Regulatory considerations

Drugs with specific pharmacological action, such as nicotine preparations for cessation of smoking, have been successfully reclassified from prescription only to non-prescription status in many

countries. Increasing the availability of more self-care options would require amendments to existing national regulations or facilitating new ones, including, for example, development of over-the-counter availability of contraceptives. A review of 30 globally diverse countries to assess national regulatory procedures for reclassifying prescription-only contraceptives as over-the-counter contraceptives showed that only 43% had formal regulatory procedures in place for changing their status from prescription-only to over-the-counter[105].Regulatory assessment of a change from prescription to non-prescription status should be based on medical and scientific data on safety and efficacy of the compound and rationality in terms of public health[106].

Conclusion

Self-care interventions for women can help disrupt, transform and realign access to health options that complement, but do not replace, facility-based care. Health care delivered through health and care workers remains a key component of the human right to health but for the reasons outlined in this paper, self-care interventions play an important role in the attainment of good health for women. To counter replication of the same discriminations that blight health care more broadly, the implementation of self-care interventions demands that the public health sector focus not just on quality care but on equitable access to care, inclusive of all people. To fulfil their potential, benefit women and advance their health and well-being outcomes, self-care interventions must be centred squarely on people as holders of universal human rights. And for that we should all be held accountable.

Table 1. Examples of self-care interventions across the life-course of women to improve sexual and reproductive health outcomes

	Health needs and challenges	WHO Recommendation
Planning a pregnancy/pregnancy	Availability of self-care options that are in addition to facility-based care can improve coverage of fertility care	Home-based ovulation predictor kits should be made available as an additional approach to fertility management for individuals attempting to become pregnant.[107]
Childhood	Infants of diabetic mothers are prone to various neonatal adverse outcomes.	WHO recommends making self-monitoring of glucose during pregnancy available as an additional option to clinic blood glucose monitoring by health workers during antenatal contacts, for individuals diagnosed with gestational diabetes[108]
Adolescence	The risks of acquiring a sexually transmitted infection, (including HIV) can be high in at-risk adolescent girls and young women, who are also twice as likely to be living with HIV than young men of the same age.	HIV self-testing should be offered as an additional approach to HIV testing services[109]; self-sampling can be offered for sexually transmitted infections[110].
Adulthood	Nearly half of all pregnancies, totalling 121 million each year throughout the world, are unintended.	Self-administered injectable contraception should be made available as an additional approach to deliver injectable contraception for individuals of reproductive age.[111]
Older age	Lifestyle changes and self-care can improve health and well-being during perimenopause and menopause, and self-test options can improve screening for cervical cancer.	HPV self-sampling should be made available as an additional approach to sampling in cervical cancer screening services for individuals aged 30–60 years.[112]

BOX 1. Examples of WHO recommendations on self-care interventions

- The consistent and correct use of male and female condoms is highly effective in preventing the sexual transmission of HIV; reducing the risk of HIV transmission both from men to women and women to men in serodiscordant couples; reducing the risk of acquiring other sexually transmitted infections (STIs) and associated conditions, including genital warts and cervical cancer; and preventing unintended pregnancy[113].
- WHO recommends making self-testing for pregnancy available as an additional option to health worker-led testing for pregnancy, for individuals seeking pregnancy testing[114].
- WHO recommends making lubricants available for optional use during sexual activity, among sexually active individuals[115].
- WHO recommends making over-the-counter emergency contraceptive pills available without a prescription to individuals who wish to use emergency contraception[116].
- WHO recommends making the self-management of iron and folic acid supplements available as an additional option to health worker-led provision of folic acid supplements for individuals during pregnancy[117].

- For women living with HIV, interventions on self-efficacy and empowerment around sexual and reproductive health and rights should be provided to maximize their health and fulfil their rights[118].

WHO suggests making the self-monitoring of blood pressure during pregnancy available as an additional option to clinic blood pressure monitoring by health workers during antenatal contacts only, for individuals with hypertensive disorders of pregnancy[119].**BOX 2. Uganda's adoption of self-administered, injectable contraception**

Since the publication of WHO's recommendation of self-administered injectable DMPA-SC, the Ministry of Health of Uganda has increased access through public-sector health facilities and in communities, supported by community health workers. Where the product is available, over one-third of visits to health facilities are for self-injection[120] and a national self-injection dispensing protocol allows clients to self-inject at their initial visit and obtain a full year's worth of DMPA-SC, to avoid repeat resupply trips. Nevertheless, many women who are trained decline to initiate self-injection, which can in turn undermine the health worker incentives to take the time for training. Poor quality training has been associated with a reduced likelihood of self-injection uptake, while being single or having a partner supportive of contraceptive use increased the likelihood of adopting self-injection[121]. Neither age nor education were associated with self-injection adoption, post-training and evidence suggests that proper training in self-injection mitigates the effect of some barriers.

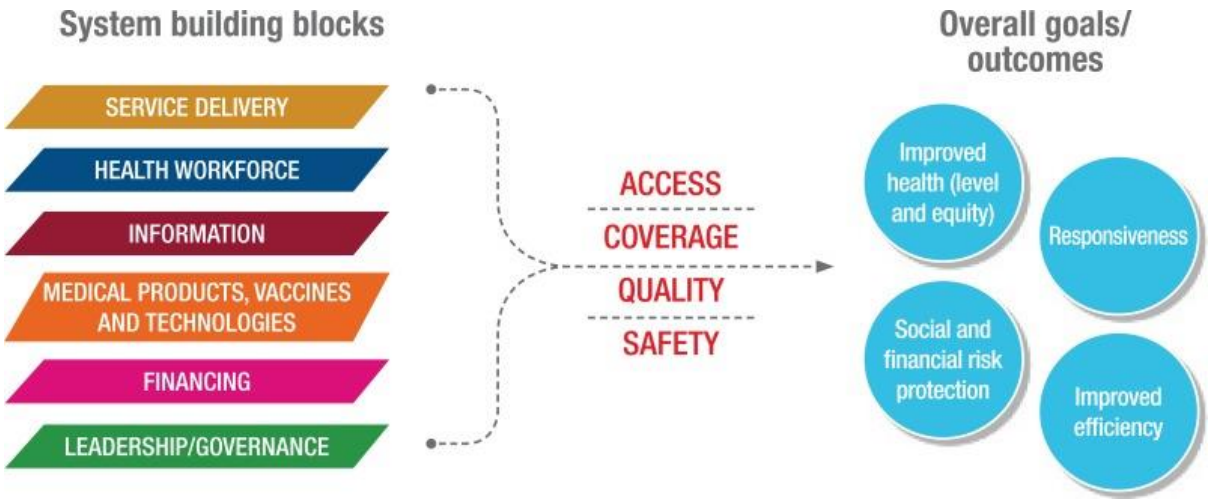
BOX 3. The female condom: A neglected opportunity

Globally, female condom use remains very low relative to male condom use despite having been developed to put more power in the hands of women to manage prevention of pregnancy and STIs themselves rather than relying on their partners. The implementation challenges include: (i) scarcity of long-term acceptability data, including research among couples and partners of female condom users, although short-term studies showed acceptability ranging from 37% - 96% in some groups[122]; (ii) social acceptability, with the early distribution programmes were targeted at sex workers, which may have given the initial impression that it was a product designed for sex workers to use, so a combination of the programmatic efforts and association with sex work may have contributed to social hesitancy and stigmatized rather than normalized the product[123]; and (iii) cost, with the original female condom having a unit cost of US$0.90 compared with the male condom at $0.10[124.]. The lack of recognition of the value of a female condom at the global policy level also did little to encourage more manufacturers to enter production, negotiate better prices, and develop effective promotion and distribution programmes, which in turn impacted uptake.

FIGURE 1. WHO Framework for self-care interventions

Source: adapted with permission from Narasimhan et al. (doi:10.1136/bmj.l688).

FIGURE 2. WHO Health systems building blocks to support self-care interventions



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