

Volatility, Resilience, and Transformation in the Reproductive Health Supplies Ecosystem

A Landscape Review



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Background

In 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development, including target 3.7: “Ensure universal access to sexual and reproductive health-care services.” In support of this goal, the Guttmacher-Lancet Commission provided a comprehensive definition of 9 essential sexual and reproductive health (SRH) services (Box 1).¹ Implementation of these services requires ongoing access to a range of reproductive health (RH) supplies, including equipment, drugs, devices, consumables, and other products (Box 2).

The Reproductive Health Supplies Coalition (RHSC or the Coalition) is the largest global network of organizations focused on expanding access to RH supplies in low-resource settings.² Founded in 2004, the Coalition comprises more than 550 member organizations. These include governments, multilateral and bilateral organizations, philanthropic foundations, manufacturers, nongovernmental organizations, and civil society organizations.³

In 2023, to help inform priority investments and activities for the coming decade, RHSC engaged a team of 4 consultants to support a redesign of the Coalition’s 10-year strategy. The first step was to conduct a rapid landscape review of the RH supplies ecosystem. The point of departure for this work was a report published in 2019, *Creating an Effective & Sustainable Ecosystem for Reproductive Health Supplies by 2030*.⁴ A key finding from that analysis was that demand for RH supplies in low- and middle-income countries (LMICs) will continue to grow in the coming years, but available international and domestic financing will likely not be sufficient to meet future needs in these markets. As a result, out-of-pocket spending for some RH supplies, including contraception, will likely increase, potentially exacerbating inequalities among underserved and marginalized groups. In addition, long-standing inefficiencies and inequities along RH supply chains will continue to impede access. Challenges include siloed funding and procurement, limited data visibility in some

BOX 1: Essential sexual and reproductive health interventions

According to the Guttmacher-Lancet Commission, essential SRH interventions include:¹

1. Comprehensive sexuality education (including puberty counseling and menstrual health education).*
2. Counseling and services for a range of modern contraceptives, including a defined minimum number and types of contraceptive methods within each country.
3. Antenatal, childbirth, and postnatal care, including emergency obstetric and newborn care.
4. Safe abortion services, treatment of complications of unsafe abortions, and postabortion care, including provision of contraception.
5. Prevention and treatment of HIV and other sexually transmitted infections.
6. Prevention, detection, and immediate services for cases of sexual and gender-based violence.
7. Prevention, detection, and management of reproductive cancers, including cervical cancer.
8. Information, counseling, and services for subfertility and infertility.
9. Information, counseling, and services for general sexual health and well-being (including menstrual health and perimenopause and menopause education and counseling).

* Text in parentheses was added beyond what was included in the original Guttmacher-Lancet definition.

areas, and issues with last-mile distribution. There is also a need to reduce barriers for manufacturers of both innovator and generic products to ensure access to high-quality, affordable products in LMIC markets.⁴

Recent disruptions in the global landscape, particularly those due to the COVID-19 pandemic, resulted in nearly 7 million deaths worldwide from 2019 to 2023⁵ and widespread supply chain disruptions. This led members of RHSC’s Executive Committee and Secretariat to commission this review of the RH landscape. This updated understanding of the evolving supplies ecosystem would provide essential underpinning for redesigning the Coalition’s strategy.⁶ The overall goal of this landscape review is to identify trends, opportunities, and challenges that may impact access to RH supplies in the coming decade, with a focus on current and potential users living in low-resource settings.

The specific objectives of the landscape review were to:

1. Surface and assess significant changes, disruptions, and advances that may impact RH supply chains and markets, focusing on changes that have occurred since 2019.
2. Synthesize and provide perspectives from RH experts on changes that have occurred, including where there are gaps in the ecosystem that are not being effectively addressed.

Particular attention was given to market trends within LMICs as well as globally, and to the availability of RH supplies at the “last mile” within health facilities and in community settings.

BOX 2: Scope of reproductive health supplies included in landscape review

According to RHSC’s Terms of Reference, the Coalition “convenes and catalyzes the collective intellect and energies of its members with the principal aim of ensuring that all people are able to access and use affordable and quality supplies... to ensure their better sexual and reproductive health.”² Currently, RHSC focuses on 4 RH supply areas: contraception, maternal health, safe abortion and postabortion care, and menstrual health. This review focused on the RH supplies required for these 4 areas as well as cross-cutting themes that may impact the entire RH supply ecosystem.

The phrase “RH supplies” is used to broadly describe the commodities and other products that are required to meet women’s RH needs and deliver RH services.⁷ For contraception, this includes the equipment and consumables needed to provide long-acting and permanent methods (e.g., male and female sterilization, insertion and removal of intrauterine devices and contraceptive implants) and short-acting methods (e.g., injectables, pills, condoms, and emergency contraception), as well as supplies needed for fertility awareness-based methods such as the Standard Days Method. For maternal health, this includes drugs to prevent or treat potentially life-threatening conditions that can occur during pregnancy, delivery, and in the postpartum period (including iron and folic acid, hydralazine, methyldopa, magnesium sulfate, oxytocin, misoprostol, metronidazole, tranexamic acid, and heat stable carbetocin). For safe abortion, this includes the supplies required to offer surgical methods (e.g., vacuum aspiration or dilation methods) or medical methods (e.g., misoprostol with and without mifepristone; when packaged together, misoprostol and mifepristone are referred

to as “combi-packs”). For menstrual health, this includes “purpose-made” products (including disposable pads and tampons as well as reusable pads and cups). In this landscape review, we collectively refer to these as the 4 RH supply areas.

In addition, this landscape review explores a number of cross-cutting areas that impact access to RH supplies, including:

- Financing and procurement
- Manufacturing, logistics, and supply chain management
- Data visibility and data analytics
- Demand forecasting
- Quantification
- Market shaping and market development
- Product development and product introduction
- Total market approaches, including private-sector engagement
- Last-mile access through both public and private channels
- Community-based distribution, including via pharmacies and drug shops
- Advocacy and accountability
- System strengthening
- Humanitarian and crisis responses
- Digital health and e-commerce
- Knowledge translation
- Youth and civil-sector engagement

Methods

Data collection for this landscape review occurred from May to November 2023. The principal sources were a desk review of relevant documents and qualitative interviews with key informants (KIs). The team reviewed and analyzed documents, webinar recordings, and other resources provided by the RHSC Secretariat, identified through online searches, or suggested during interviews with KIs. In addition, the team interviewed 65 KIs using the recruitment approach described below.

KEY INFORMANT RECRUITMENT

A consultative process with the RHSC Secretariat enabled the consultant team to compile an initial KI list representing relevant organizations and individuals with expertise within or across the 4 RH supply areas. The goal was to maximize diversity across 2 dimensions: (1) KIs with a mix of perspectives on global, regional, national, and subnational considerations; and (2) representatives of a range of organizations, including donors and institutional procurers, government officials, manufacturers, and technical assistance providers, as well as representatives of RHSC's Executive Committee and Secretariat.

All prospective KIs responded to initial interview requests, and all participated, with the exception of 3 individuals due to scheduling challenges. Additional KIs were added based upon recommendations offered during some interviews. Overall, interviews were conducted with 65 unique KIs. Six of the interviews were conducted with small groups of 2 to 3 KIs from within the same organization. Our final sample included 19 donors and institutional procurers, 4 representatives of multilateral organizations or governments, 3 manufacturers, 24 representatives from technical assistance organizations, 8 individuals who were independent or retired, and 7 members of RHSC's Secretariat.

DATA COLLECTION AND ANALYSIS

Semi-structured interview guides were used for KI interviews. The interviews lasted 45 to 90 minutes, and all were conducted in English either via video call or in person. Almost all interviews were audio-recorded; in 3 cases, only handwritten notes were taken. Recorded interviews were transcribed using the online Otter.ai software, and handwritten notes were typed and transferred to a database. An analytical framework was developed by the team based on the key areas of inquiry, and rapid thematic content analysis methods were used to extract relevant quotations into Microsoft Excel and Microsoft Word.⁸ Preliminary results were presented to members of RHSC's Secretariat and Executive Committee in September and October 2023; results were then further refined based on additional expert review and input.

Findings

A number of cross-cutting themes emerged, including trends, opportunities, and challenges that may impact access to RH supplies in LMICs in the coming decade.

INSIGHT #1

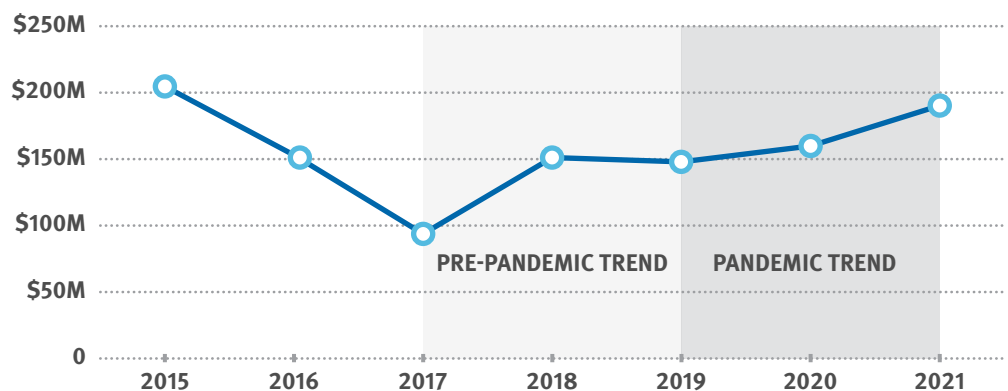
Impact of COVID-19 and strengthening resiliency to future threats

Globally, COVID-19 had a disproportionate impact on people living in LMICs, largely due to preexisting weak and under-resourced health systems.⁹ Although more than 80% of the world’s population lives in LMICs,¹⁰ spending in these regions accounts for only 20% of global pre-pandemic spending on health care.¹¹ A recent review assessing the impact of COVID-19 on certain RH services—including contraception and safe abortion—found increased access barriers and reduced provision of services during the pandemic.¹² COVID-19 also revealed important vulnerabilities in RH supply chains, including in manufacturing, global- and country-level logistics, and financing. Specific barriers included reduced availability of raw materials (e.g., active pharmaceutical ingredients), restricted movement and

travel, limited human resources, shipping delays and freight disruptions, constrained budgets, and competing resource needs. The pandemic also highlighted that there is limited regional manufacturing, particularly in sub-Saharan Africa, which can lead to an overreliance on imports. In addition, inflation and growing production costs have led to concerns about increased pricing of RH supplies in the future.^{13, 14}

At the same time, the overall impact of COVID-19 on RH supplies was not as severe as initially anticipated.^{15, 16} For example, an analysis of spending on contraceptive commodities showed that there were not substantial decreases in funding during this period (see Figure 1), although this was partly due to preexisting multiyear commitments.¹⁶ In addition, there is evidence that country-level RH supply chains demonstrated resilience during the crisis. For example, in some settings, having a buffer reserve of RH commodities at the national level helped prevent stockouts during the pandemic.¹⁴ Also, country programs made small but meaningful adjustments to ensure ongoing access to RH supplies and services.¹⁷ Notably, adaptations and innovations that were deployed during the pandemic included expanded use of e-commerce and other digital service delivery technologies; new procedures for inventory management; improved coordination among supply chain stakeholders, including suppliers and other private-sector actors; and revised national policies to address RH supply challenges.^{14, 18} Also, international efforts coordinated by the Global Family Planning

Figure 1: Trends in Total Donor Funding for Contraceptives Before and During the COVID-19 Pandemic¹⁶



Visibility and Analytics Network (VAN), hosted by RHSC and operational in more than 35 countries, identified contraceptive funding gaps that led to mobilization of resources, expedited orders, and stock reallocations in multiple countries.¹⁹

Overall, a key insight is that the impact of the COVID-19 pandemic cannot be siloed from other trends; aside from temporary crises faced in mid-2020, it is difficult to conclusively attribute ongoing challenges with RH supplies to the pandemic.²⁰ The KIs interviewed agreed that the focus of the RH supplies community should now be on preparedness for future pandemics and other crises. In addition, there is growing interest in investments in regional manufacturing to foster improved resilience to future threats, particularly in sub-Saharan Africa.²¹

*“Some of the things that we saw during COVID... included the issues connected with supply chains, the increase in freight costs, the changing trade costs... I don’t know how much [we were] directly able to influence the decision-making. But I do believe that, at least once you are heard, and when you get these issues out into the open, people became aware.” — Key informant**

“When we look at the manufacturers, we noticed that most... are located in [Asia]. As a procurer myself, most of my generic manufacturers are either in India or in China. When COVID happened, supply chains were interrupted.”

“There is less focus on COVID itself at this point, and much more focus in the global health space on pandemic preparedness as a whole. There’s still obviously some recovery from COVID, from the economic impacts.”

INSIGHT #2

Macroeconomic trends

According to data from the World Bank, slowing economic growth in many LMICs will likely continue to impact government revenue, and in turn affect health investments, including for RH services and supplies.²² In a number of low-resource settings, there has also been a decline in currency value, and inflation remains a major concern. In addition, global and national economic shocks have raised the cost of debt servicing as well as new borrowing.²³ In particular, there have been substantial increases in external debt in sub-Saharan Africa, with a shift to more private borrowing.²⁴ Because a large share of this debt is private and multinational, coming to agreements on debt restructuring may be challenging in the future.²⁵ While data suggest that COVID-19 exacerbated the situation, these trends were preexisting and reflect conditions that emerged over the past decade.²⁶

“We can bring those products in. But we can’t convert the local currency back into dollars to... [then] take those dollars and buy more commodities... If we can solve for that one thing, we could solve a huge amount of problems with supply issues.”

“We’re in a really difficult economic situation for countries that makes it challenging. At the same time, you know, at least with family planning [supplies], we’re not talking about huge costs.”

* Indented and italicized text reflects key informant quotes.

INSIGHT #3

Demographic trends

Demographic shifts—including urbanization and migration—will inform where and when RH supplies are needed in the coming years. According to the United Nations Population Fund, interconnected trends of rapid population growth, migration, urbanization, and declining fertility rates are “reshaping entire communities and societies.”²⁷(p.v) In addition, there are currently 1.2 billion youth (ages 15–24 years) worldwide, the largest generation of young people ever.²⁸ Growth in youth populations can be economically beneficial for countries (e.g., create demographic dividends)²⁹ but can also lead to internal social disruption and excessive external migration.³⁰ Globally, the majority of youth live in LMICs, but young people are often left out of conversations and decision-making related to RH supplies for a variety of cultural, logistical, financial, and political reasons.³¹ Age-based restrictions, stigma, and a lack of youth-friendly services remain key challenges to access.³²

“Looking at issues of population, diversity, migration... How do we ensure that there’s resilience and adaptation for those who are most vulnerable?”

“So many young people in the world... need better, different kinds of care. There’s increasing conflict and climate disasters that... are putting pressure on health systems. And so, you need different ways to deliver care. And I think all of that makes us really think that we need to pay more attention to supply chain management and the way products and... models of care are being designed and delivered, especially for the young... How do we put those pieces together?”

INSIGHT #4

Climate change

Climate change is widely considered to be one of the greatest threats to global health and development.³³ Although LMICs contribute relatively little to overall emission rates, people living in impoverished regions are disproportionately affected by climate change.³⁴ Recent reviews have found numerous areas where climate change is already impacting RH supplies and services, in particular for girls and women in low-resource settings.^{35, 36} RHSC has highlighted the need to increase supply chain resilience and plan for climate-related disasters, including ensuring data availability and data visibility, improving coordination between market actors, and expanding the use of digital technologies. There may also be ways to promote “greener” RH products and supply chains, such as measuring and reducing emissions, promoting sustainable packaging and procurement policies, addressing waste management throughout product life cycles, and supporting development of new eco-sensitive RH pharmaceutical products and supplies.^{37,38}

“I think we really need to look at climate change as one of the next big challenges... More recently, we are focusing on how to make systems more resilient.”

“What I am hearing is that global health as a whole has less visibility and less focus in the development agenda. At least in terms of attention... Everybody is talking about climate change.”

INSIGHT #5

Growing impact of humanitarian crises

In 2024, the United Nations estimated that more than 309 million people were in need of humanitarian assistance.³⁹ Humanitarian crises create challenges not only for moving supplies quickly, but also because emergencies divert funding and attention from routine procurement for RH commodities and services. Recently, violent conflicts (e.g., the wars in Ukraine and Gaza) have been a dominant concern for donors.⁴⁰ In addition, natural disasters or conflicts can cause long-term damage to national health systems, including those that were previously highly functional.⁴¹

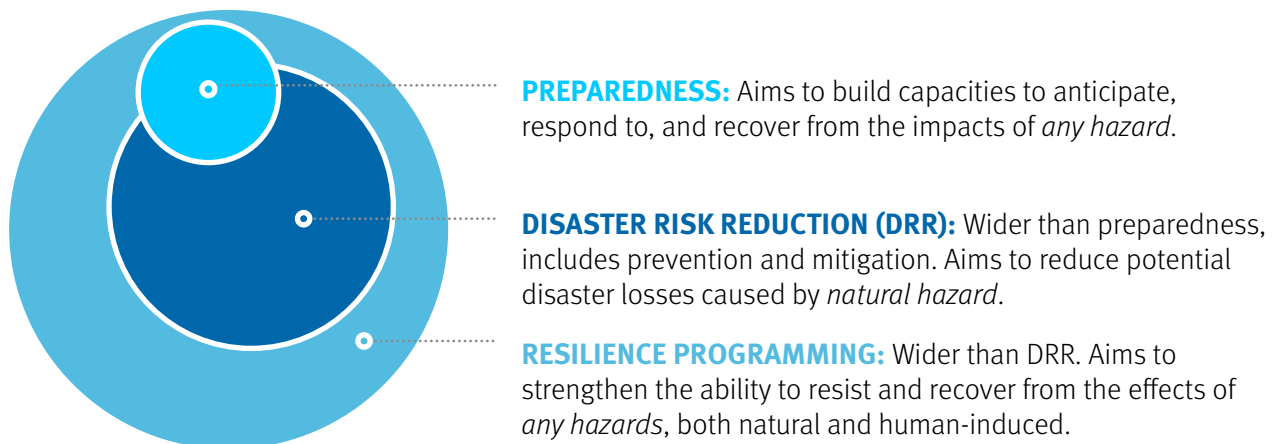
Evidence-based management of RH supplies in crisis settings puts an emphasis on preparedness, which is defined as “actions that are intended to improve operational readiness to respond to a disaster or destabilizing event, and that contribute to a more efficient and effective recovery.”^{41(p.13)} Preparedness is one stage in a broader emergency management cycle (see Figure 2). Several KIs indicated that greater attention is needed within the RH supplies community on the humanitarian-development nexus.

“[We] should be thinking about the humanitarian-to-development continuum and how supplies fit into that space.”

“Humanitarian logistics is becoming so crucial... There are conflicts happening everywhere. We know about Ukraine and the supply chain. That’s obvious, right? But then [think] of the woman in Somalia, in the Horn of Africa. Droughts and all kinds of things are destabilizing... When you talk about meeting [their RH needs] with products, I’m looking now at the last mile, not the global conversations. Where do you find [the people]? Where are they and how do they access their products?”

“There’s still a big gap between people who focus on humanitarian [issues] and people who focus on development... Resilience really sits in between those [sectors].”

Figure 2: Preparedness Is One Stage in a Broader Emergency Management Approach (reprinted with permission)⁴¹



INSIGHT #6

Increased emphasis on localization, diversity, equity, and inclusion

In the past several years, growing attention has been paid to the historic power imbalances that shape the global health and development sectors. Localization is a concept that is distinct but interconnected with issues of diversity, equity, and inclusion (DEI). Localization aims to expand the power, resources, and autonomy of in-country organizations to be sole or lead actors in health services.⁴² Several donors, including the United States Agency for International Development, have rolled out policies regarding localization, and other donors are moving in this direction.^{43, 44} An assessment of potential strategies to restore greater power to stakeholders located in the Global South recommended increasing representation, redistributing resources, putting new and more rigorous accountability measures into place, and disseminating knowledge in ways that are most likely to reach those who can best apply it.⁴⁵

Similarly, DEI efforts aim to address power imbalances that result in the underrepresentation and exclusion of marginalized populations. Strategies to promote DEI in global contexts should include steps to “assess and address imbalances regarding who holds power in decision-making, how problems are defined, and how funding is allocated to ‘Global North’ and ‘Global South’ organizations.”^{45(p.6)}

“[We] need to hammer heavily on localization... and invest more in advocating with private sector and philanthropies to invest in decentralization of the production of commodities.”

“How are we making sure that the strategies and the initiatives and the efforts that we undertake are reflective of the needs of end users in a way that also embraces DEI?”

INSIGHT #7

Increased prioritization of gender equity

Globally, increasing attention and resources are being dedicated to the promotion of gender equity in LMICs. For example, the Generation Equality Forum, held in 2021, produced US\$40 billion in financial commitments to advance gender equality.⁴⁶ Likewise, addressing gender-based violence was a key theme of the ICPD25 Programme of Action.⁴⁷ A global survey of 1.2 million women and girls conducted by the White Ribbon Alliance found that sexual and reproductive health services, including family planning and maternal health, are top priorities for the world’s women and girls.⁴⁸

Several KIs noted that moving forward it will be critical to highlight the linkages between RH supplies and gender issues. Efforts are needed to promote gender equity and social inclusion in the RH supply chain workforce—including increasing the number of women in professional roles focused on logistics and data management.⁴⁹

“Gender is the rising star.”

“The product access, the quality, all these things are a part of the user experience. I think gender is something that we can look at more deeply, how it affects so many issues. Gender attitudes and inequities.”

INSIGHT #8

Changes in financing for RH supplies

Several KIs emphasized that in the past 5 years, the international donor landscape has changed rapidly, with a high level of uncertainty and volatility. For example, cuts in the United Kingdom’s bilateral funding that began in 2020 had a substantial impact on the RH supplies ecosystem.⁵⁰ Other donors stepped in to fill the gaps, but there were funding delays that led to some disruptions with the global RH supply chain.¹⁴ Furthermore, domestic opposition groups have gained ground in recent years and seek to reduce the amount of funding bilateral donors allocate to RH, including procurement of supplies.^{51, 52} In addition, there are shifting dynamics in public- and private-sector expenditures for RH supplies, including increases in out-of-pocket spending for some RH supplies,⁵³ which some KIs noted may put a disproportionate burden on the poorest populations. Box 3 and Figures 3 and 4 provide insights on recent trends in RH supply costs.

Based on demographic changes, shifts in use dynamics, and other trends, the overall need for RH supplies is projected to increase over the coming decade. However, given uncertainty in the funding landscape, there has been a growing focus on the need to diversify financing for RH supplies.⁵⁴ In particular, KIs noted the increased emphasis on domestic resource mobilization. In addition, there are questions of how to effectively offer subsidized commodities to low-income groups without disincentivizing meaningful private-sector engagement in LMIC markets. KIs also noted a need for ongoing global coordination while concurrently supporting increased capacity in national and subnational supply chain management.

“I’ve been trying to think very strategically with supplies... on where we go from here, because we know that [global] funds are not growing. We know that they’re static.”

“A lot of what we’re talking about is government stewardship of these markets and increasing domestic public resources or increasing the use of concessional financing.”

“Increased domestic resources is the narrative we’re hearing everywhere. But what it actually looks like to get there... I think [we need to] have hard conversations about what that actually means and what’s actually feasible and what would need to change.”

BOX 3: Current costs of RH supplies in LMIC markets

RHSC’s Landscape and Projection of Reproductive Health Supply Needs (LEAP) Report presents current and predicted trends in use and spending for each of the 4 RH supply areas (contraception, maternal health, safe abortion and postabortion care, and menstrual health).⁵³

For contraception, there are more than 744 million users in LMICs, and the estimated cost of contraceptive supplies was US\$5.48 billion in 2023. Notably, the share of public- versus private-sector distribution varies by method and, overall, the majority of consumer spending occurs in the private sector, with contraceptive pills accounting for over half of private-sector costs (53%) (Figure 3).

For maternal health supplies, the total cost of 7 priority drugs, plus 2 of the 3 emerging maternal health drugs, is US\$216 million. The total current cost of the 3 life-saving commodities (oxytocin, misoprostol, and magnesium sulfate) is US\$24.7 million or 11% of the total cost of the drugs assessed (Figure 4).

For safe abortion, the total cost of surgical and medical supplies is estimated at US\$273 million, with medical methods (misoprostol with and without mifepristone) accounting for 94% or more of the supply costs.

For menstrual health supplies, there are currently an estimated 1.72 billion menstruators across LMICs. Approximately 78% of menstruators in LMICs use purpose-made products (e.g., single-use pads and tampons, reusable pads and cups). Among those using purpose-made products, 93% of menstruators are using single-use products (pads and tampons). An estimated US\$28.8 billion is spent annually on purpose-made menstrual hygiene products in LMICs.

Figure 3: Comparison of Public- and Private-Sector Spending on Contraceptive Supplies in LMICs⁵³

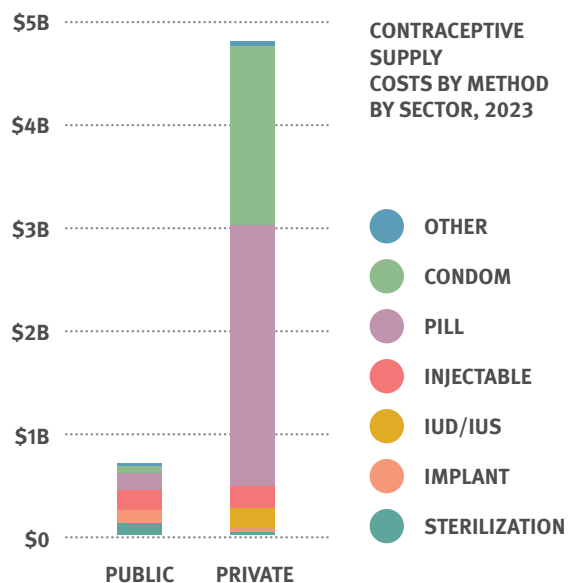
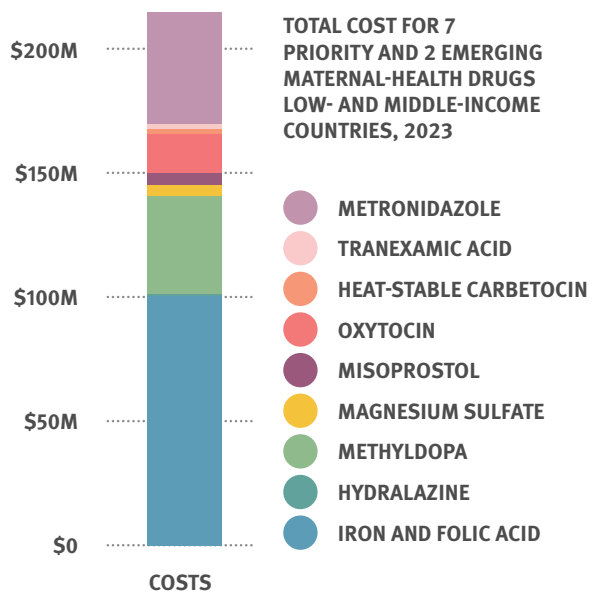


Figure 4: Spending on Priority Maternal Health Drugs Across Countries by Income Category⁵³



INSIGHT #9

Ongoing need for quality assurance and national registrations

Issues related to quality assurance and regulatory approvals of RH supplies in LMICs remain an ongoing area of concern. At the global level, the World Health Organization (WHO) Prequalification Programme, which was established in 2001, is intended to accelerate timelines and decrease costs for quality assurance of essential medicines—including RH products.⁵⁵ However, this vision has yet to be fully realized, because time and resource requirements for the prequalification process remain high, both for applicants and WHO management. This can create barriers to entry for some generic suppliers, who may be particularly affected by the financing and human resources needed to pursue prequalification.⁵⁶ At the national level, lengthy and complicated national registration processes can further impede access, even when RH supplies are on countries' Essential Medicines Lists.

Though regional harmonization efforts aim to streamline the registration process, evidence suggests that country-level regulatory approvals remain time-consuming, and that COVID-19 created additional challenges.⁵⁷ Furthermore, poor storage conditions and other logistic constraints within some low-resource settings can lead to product degradation, particularly for maternal health supplies (e.g., oxytocin, which requires cold storage throughout the supply chain), impacting quality at the last mile.⁵⁸ In some settings, counterfeit products and corruption along the supply chain can result in low- or questionable-quality RH products.⁵⁹

KIs noted that there are also ongoing disagreements within the RH supplies community about definitions of and practices around quality assurance. For example, many donors require regulatory approval by a stringent regulatory authority or the WHO Prequalification Programme, ensuring products procured with their financial support meet these global standards. However, governments and some international organizations utilize their own funds to independently procure RH supplies that do not meet these international standards.

In those cases, those procurers assume responsibility for quality testing and pharmacovigilance, which may be difficult to implement with rigor, if at all.⁶⁰ Several KIs noted that additional coordination and dialogue is required regarding evidence-based approaches to ensuring the high quality of RH supplies throughout the LMIC supply chain.

“That’s an area [that is] very useful in educating... donors, partners... who are not necessarily in the supply chain space about what it means to be quality assured.”

“What does quality assurance mean? Because WHO prequalification is just one little piece of a quality assurance or risk mitigation strategy around quality.”

“There is an issue of quality of the products that’s very, very important for the countries that are doing their own procurements, in particular, downstream procurement within their own country.”

INSIGHT #10

The role of integrated RH supply chains

For many years, governments and donors have recognized the importance of program integration within primary health care systems, including to address HIV and/or to improve reproductive, maternal, child, and adolescent health outcomes.⁶¹ However, in many settings, the potential of integrated health care has not yet been fully realized. To date, most efforts to advance integrated RH programs have focused on service delivery models rather than on supply-side considerations such as procurement models, logistics, or market dynamics. While dedicated supply chains have historically helped increase access to RH supplies in low-resource settings, evidence shows that siloed procurement approaches and supply chains can also impede access. Moving forward, several KIs noted that increased attention is needed on integrated RH supply chains, particularly at the country level and within the public sector.

“Twenty years after we preached the value of integration, it really hasn’t happened... I can’t figure out how we haven’t managed to get integration together... It’s really disparate.”

“[In the public sector], it would be one supply chain and all the commodities. You know, however it works best for the government... It’s about the placement of the warehouses throughout the country, and then when distribution is done... [RH supplies] make it down to the last mile. That’s my goal. That’s my dream.”

INSIGHT #11

Growing importance of data visibility and artificial intelligence

A critical element of improving the efficiency and effectiveness of RH supply chains is data visibility. This includes the ability to access, monitor, analyze, and disseminate relevant supply data across multiple groups, including governments, procurers, manufacturers, national and subnational distributors, and last-mile facilities in both public and private sectors. Evidence shows that improved data visibility can help reduce stockouts and product wastage as well as help streamline demand forecasting, procurement planning, and inventory management.^{62, 63}

A number of KIs observed that there have been improvements in data visibility within the RH ecosystem in the past several years. Most notable among these is RHSC’s launch of the VAN, which captures data related to contraceptive supplies from multiple sources, facilitates data harmonization, and provides tools to support decision-making and coordination among governments and other stakeholders.⁶⁴ However, some KIs also noted several key areas requiring additional investments in coming years. These include ongoing digitization of information and systems; greater inclusion of private-sector data, including from social marketing organizations and traditional commercial actors; expanded access to data for emergency and fragile settings; inclusion of qualitative data and consumer insights about use and preferences; and a continued need to prioritize data visibility all the way to the service delivery point/provider.

Several KIs also recognized that artificial intelligence (AI) will likely transform RH markets and supply chains in the coming years, including approaches to demand forecasting, inventory management, quality assurance, and supplier risk management.^{65, 66} In addition, AI will likely impact data security and ownership, intellectual property rights, and technological dependencies.

Moving forward, governments and private-sector actors must be prepared to ensure that governance of supply-related AI is guided by democratic principles and helps advance health and equity in LMIC settings.⁶⁷

“We don’t want to go back to the old days where a country might have had a separate dialogue with a donor about [their] needs, and then a completely separate conversation with a different donor, maybe using different methodologies for quantifying need. So having a centrally managed national supply plan... I think we made significant progress to get there.”

“Getting that supply chain visibility deeper into the system all the way down to service delivery points is also critical... All the way down to the service delivery points gives you a better sense of supply and demand in real time.”

“We [need to] get more systematic about how we capture social marketing data, knowing that pure private-sector data, it’s a... more challenging prospect. But the social marketing data should be lower hanging fruit.”
“So we’ve started conversations [within our organization] about AI, but suddenly we realized we are behind.”

INSIGHT #12

Improved coordination for new product introduction and scale-up

Substantial efforts in recent years have focused on the introduction and scale-up of several new or lesser-used RH supplies. These include contraceptives (e.g., implants, injectables, and hormonal intrauterine devices); maternal health drugs (e.g., heat-stable carbetocin and tranexamic acid); medical abortion supplies (e.g., combi-packs); and menstrual health supplies (e.g., reusable menstrual cups). In many cases, investments have been made in consumer research, pilot introduction, and global- and country-level coordination to facilitate scale-up. However, such introduction efforts remain largely siloed by method category, and investments to scale up new products has been limited in some cases.^{68, 69}

Several KIs noted the need to improve cross-method coordination to support RH product introduction, including involving product developers and manufacturers in planning and implementing scale-up efforts. According to a High Impact Practices Strategic Planning Guide focused on new product introduction, coordination between multiple actors (e.g., governments, normative bodies, public- and private-sector actors, service delivery organizations, and end-user communities) is essential to ensuring sustainable provision of new and lesser-used products in LMIC markets.⁶⁹ In addition, country ownership of introduction and scale-up planning and implementation is critical, while global and regional efforts can help ensure that lessons learned are rapidly translated across countries and settings.

“[We need] coordination across the community on things like product introduction to... think systematically about the market stewardship instead of delivering a lot of these functions in a fragmented, product-specific way... Also, as a key principle, can we actually think about this whole agenda from the lens of countries and users?”

“Having the manufacturers really be part and parcel of this... It’s really grown in the role that manufacturers [can] play.”

INSIGHT #13

Growing focus on self-care

In recent years, increasing attention has been placed on self-care as a strategy to promote SRH. WHO defines self-care as, “The ability of individuals, families, and communities to promote health, prevent disease, maintain health, and cope with illness and disability with or without the support of a health worker.”⁷⁰(p.8) Self-care approaches are relevant to multiple RH product areas, including contraception (e.g., use of contraceptive pills or self-injectable contraceptives); maternal health (e.g., self-testing to determine pregnancy status or self-management of iron and folic acid supplementation); safe abortion (e.g., self-administration of medical abortion drugs); and treatment and prevention of STIs, including HIV (e.g., self-testing to know HIV/STI status and self-administration of biomedical prevention products such as oral pre-exposure prophylaxis). In addition, self-managed digital technologies can support RH service delivery (e.g., to track menstrual cycles or to receive counseling via telehealth services).⁷¹

National self-care policies have been established by a number of LMICs, and investments are increasingly being made to support self-care in public- and private-sector settings and in humanitarian contexts.⁷² In some countries, COVID-19 ramped up support for and utilization of self-care approaches, including use of digital technologies and advanced provision of some RH supplies for clients to use at home.^{17,73,74} However, as self-care approaches continue to gain traction, the need to ensure availability of RH supplies is likely to grow to meet potentially higher demand. Several KIs noted the importance of ensuring availability of RH supplies in settings where clients may want to access or adopt self-care methods, such as drug shops and pharmacies.⁷⁵

“India is probably the best example of having quickly, so rapidly... gotten to where it is over-the-counter purchase of pills. People self-managing in the millions because they have access to products and because the word is out how they can help each other know what to do.”

“The next phase of the work will be with a broader focus on private-sector engagement, including strengthening pharmacy and drug shop provision of multiple methods.”

INSIGHT #14

Need for effective knowledge management and workforce resilience

During the COVID-19 pandemic, WHO acknowledged a global “infodemic”; that is, there was a substantial increase in the amount of information being disseminated during the crisis, including false and misleading health information.⁷⁶ During interviews with KIs, several respondents noted that they generally experience “information overload,” even when resources are of high quality. Given this, the RH supplies community may consider additional investments in evidence-based knowledge management strategies to ensure that technical information and other resources are developed and disseminated effectively to target audiences, including among governments, suppliers, and advocacy organizations.

Furthermore, promoting overall workforce resilience will be an important consideration in the coming decade, including as part of disaster preparedness. In 2019, WHO classified burnout as an “occupational phenomenon” for the first time.⁷⁷ There is a growing body of evidence that burnout is a problem among frontline clinical health care workers, including in LMICs.⁷⁸ Emerging evidence also suggests that other global health professionals may be struggling with feelings of exhaustion or disconnection after facing unprecedented workplace demands in the past several years.^{79, 80} These challenges may exacerbate existing human-resource constraints within LMICs, including within already constrained supply chain systems.⁸¹ As such, it will be important to create and enforce policies and systems that promote resilience and well-being, including among workers in RH supply chains.

“I find the amount of information quite overwhelming... Maybe it’s about coming back to basics; doing less is more.”

Discussion

Despite substantial challenges in the broader landscape, the RH supplies ecosystem demonstrated remarkable resiliency in recent years, particularly considering the COVID-19 pandemic, which disproportionately impacted people living in LMICs. However, ongoing and emerging trends surfaced through this landscape review indicate that the RH supplies ecosystem will continue to demonstrate characteristics of a highly volatile, uncertain, complex, and ambiguous environment. Natural and human-induced disasters, geopolitical unrest, and economic instability put increasing pressures on already weak health systems, including supply chains. Moreover, rapid migration, urbanization, and growing youth populations will change when, where, and how end users access and use RH supplies. Furthermore, the rapid emergence of AI alongside improved data visibility will continue to transform the global landscape. It is therefore critical that innovative approaches are applied to strengthen RH supply chains down to the last mile—including health facilities, community settings, and private retail outlets. Concurrently, reduced or stagnant financing for RH supplies combined with increasing needs could threaten the progress that has been realized in recent years to reduce maternal and child morbidity and mortality. This, in turn, will impede countries' ability to make progress toward the Sustainable Development Goal target 3.7: Ensuring universal access to sexual and reproductive health-care services.

During the COVID-19 pandemic, RHSC and JSI convened stakeholders to align on a shared roadmap for increasing resiliency of the RH supply ecosystem.¹³ Recommendations (see Figure 5) included additional investments in 5 key areas:

1. Facilitating healthy markets (e.g., addressing existing market barriers and diversifying products offered in LMIC settings).
2. Ensuring adequate and diversified financing for RH supplies (e.g., addressing rising commodity and freight costs, and mobilizing international and national financial commitments for procurement in both routine and emergency settings).
3. Strengthening supply chains, including logistics management (e.g., redesigning sourcing, inventory, freight, and distribution systems to address persistent weaknesses).
4. Supporting improved stakeholder coordination (e.g., building on alliances forged during the pandemic to improve joint planning, including with private-sector actors).
5. Improving availability, quality, and use of data (e.g., strengthening data systems to allow for evidence-based, rapid, decentralized decision-making with a focus on domestic leadership).

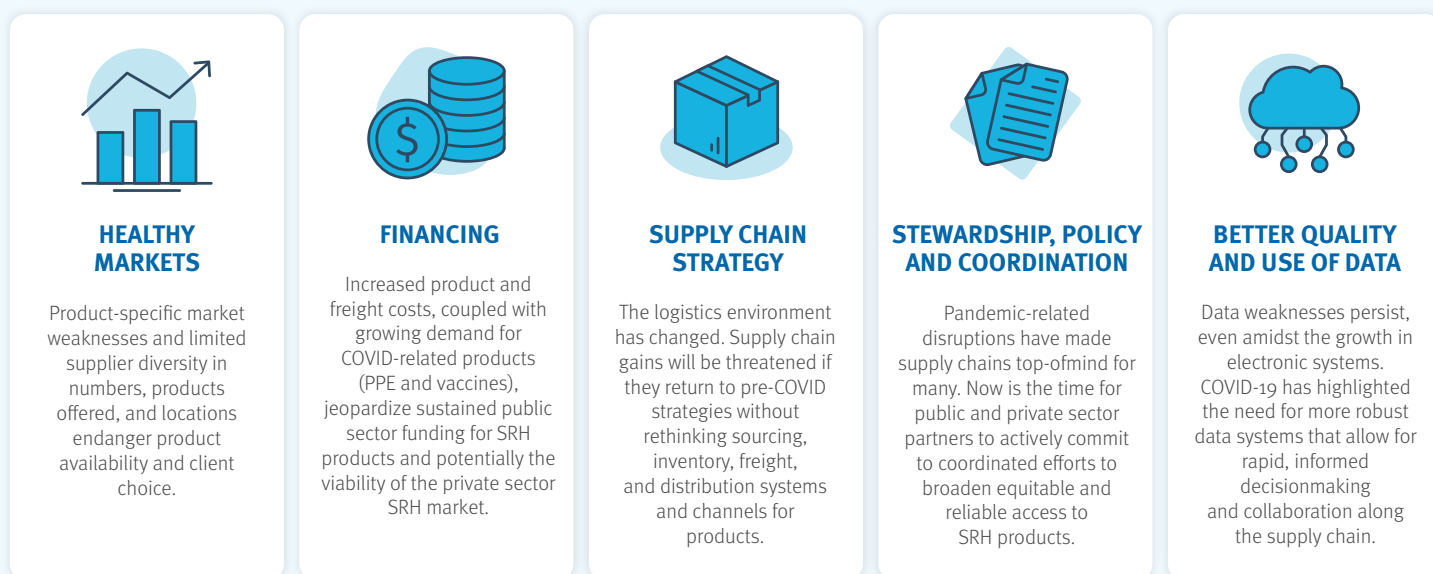
The findings of this landscape review corroborate the recommendations of the roadmap. In addition, the landscape review also surfaced other critical areas for investment, including:

- Preparedness for future pandemics and other natural or human-induced crises.
- Innovative, cost-effective approaches to ensuring the quality of RH supplies that meet the needs of all women and girls and are informed by a deep understanding of what prevents people from accessing and using RH supplies.
- Increased support to accelerate timelines for national and regional registrations.
- Integrated approaches to addressing supply-side barriers (e.g., addressing long-standing siloed procurement models and logistics).
- Improved last-mile distribution of RH supplies at all levels (e.g., facility, community, retail).
- Responsive approaches to meet the needs of groups that are underserved and marginalized by inequitable systems.

- Strengthened support for country-led introduction and scale-up of new and lesser-used products, including cross-coordination across supply areas.
- Improved knowledge management, particularly during crises.
- Policies and systems that promote equity and workforce resilience in RH supply chains.

Furthermore, in harmony with the prioritization of locally led development alongside DEI practices, several KIs noted there is a need for leadership models within the RH supplies ecosystem that more fully embrace inclusive, power-sharing approaches—restoring greater decision-making power and representation to people, organizations, and communities based in the Global South and to women in all settings.^{42,82} The transformational leadership model presents a response to this recommendation, as it enhances collaborative approaches for working with and through people.⁸³ Unlike traditional leadership models that emphasize characteristics and behaviors of leaders in relation to their followers, transformational approaches put greater emphasis on symbolic leader behaviors (e.g., modeling values and being visionary).^{83,84}

Figure 5: Recommended Investment Areas to Ensure Access to RH Supplies in Coming Years¹³



Closing

Ensuring the availability of a range of effective, quality, safe, and affordable RH supplies in both routine and crisis settings is critical to promote the health and well-being of individuals and couples around the world. Collective, cohesive actions by actors throughout the RH supplies ecosystem will be required to resolve the gaps and advance the recommendations presented here. Transformational leadership models based on power-sharing, resiliency, facilitation, and adaptation may help address long-standing barriers within RH markets and supply chains to promote equitable access in both public- and private-sector settings.



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