Final Report | June 2008

Designing a Global Financing and Procurement Mechanism for Reproductive Health Supplies

Reproductive Health Supplies Coalition

Dalberg
Global Development Advisors

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Acknowledgments

The design of the Minimum Volume Guarantee (MVG) and Pledge Guarantee (PG) mechanisms builds on previous studies and initiatives funded by the Bill & Melinda Gates Foundation, the UK Department for International Development (DfID) and the U.S. Agency for International Development (USAID), under the guidance of the Reproductive Health Supplies Coalition (RHSC).

The assignment of detailing the technical design, organizational structure, and level of investment was contracted to Dalberg Global Development Advisors by the World Bank on behalf of its funders, DfID, the German Ministry of Economic Cooperation and Development (through KfW development bank) and the Ministry of Foreign Affairs of the Netherlands.

This work was undertaken with the oversight and input of the project's Advisory Group, consisting of Wolfgang Bichmann (KfW), Sadia Chowdhury (World Bank), Nell Druce (DfID), Anne Nolan (DfID), Susan Rich (Bill & Melinda Gates Foundation), Marion van Schaik (the Ministry of Foreign Affairs of the Netherlands), and Jagdish Upadhyay (UNFPA) and relied on day-to-day insights and guidance from the project's Counterpart Group, consisting of Alan Bornbusch (USAID), Sangeeta Raja (World Bank), Sandra Rolet (consultant to KfW), John Skibiak (Reproductive Health Supplies Coalition), and David Smith (UNFPA). Support was also provided by the European Commission. Thanks for help and input is also due to Susan Duberstein, Bernard Fabre, Lisa Hare, Carolyn Hart, Raja Rao, Tim Rosche, and Jeff Sandersen of JSI/DELIVER and to Jane Feinberg and Mimi Whitehouse of RHInterchange, and Adrien Dozol at the World Bank.

Interviews conducted in Ethiopia, Tanzania, and Ghana and conversations with stakeholders in Zambia, Kenya, and Uganda proved invaluable. Our gratitude to those who shared their insights and perspectives. A full list of interview participants can be found in the annex.

Active guidance continues to be provided by the members of the Reproductive Health Supplies Coalition (RHSC). This document is available on the RHSC website, www.rhsupplies.org.

Executive Summary

Reproductive health (RH) is a fundamental human right, recognized by the International Conference on Population and Development (ICPD) and through the U.N. Millennium Development Goals (MDGs). Ensuring reproductive health requires access to essential commodities that protect health and improve livelihoods. Current efforts and programs by donors, multilateral agencies, and NGOs to help developing countries increase access to RH supplies for those in need have been successful, but fundamental gaps in access persist. Overall contraceptive use among women at risk of unintended pregnancy remains modest in developing regions and is particularly low in sub-Saharan Africa (18%). Reaching these populations requires two advances: 1) an increase in resources to fund RH commodity supply and delivery and 2) more efficient and effective supply and delivery of products. Addressing these challenges is central to achieving the ICPD and MDG targets to which the international community has committed itself.

The low prevalence of modern contraceptive use can be linked to both demand-side and supply-side issues. This study focuses on increasing efficiency and effectiveness in the supply-side. Previous studies have identified significant inefficiencies and suboptimal practices in the global aid architecture for the financing and procurement of RH supplies—inefficiencies that reduce the availability of needed commodities. Funding variability, lack of alignment of funding and procurement cycles between donors and procurement agents/receiving governments, and uncoordinated procurement processes lead to four problems: 1) higher costs due to subscale contracts and emergency shipments, 2) stock-outs and wastage of products as a result of longer supply lead times, and 3) an inability to effectively manage the in-country supply chain, and 4) variability in RH product quality.

The Reproductive Health Supplies Coalition (RHSC), with funding from the Bill & Melinda Gates Foundation, DfID, and USAID, commissioned a series of studies to identify constraints to providing RH supplies and to make recommendations on how best to address these challenges.[1] McKinsey & Company in 2006 conducted one such study, which proposed financing strategies to improve efficiencies in the RH commodity financing/procurement system. The study recommended implementing two mechanisms to address inefficiencies and improve effectiveness: a procurement mechanism known as the Minimum Volume Guarantee (MVG) and a financing mechanism called the Pledge Guarantee (PG). The MVG and PG represent novel tools in the global health context, aiming to address supply chain and procurement issues stemming from donor finance variability and subscale/suboptimal procurement.[2]

Recently, Dalberg was commissioned by the World Bank on behalf of its funders, DfID, KfW, and the Ministry of Foreign Affairs of the Netherlands, under the guidance of technical experts from KfW, UNFPA, USAID, RHSC, and the World Bank, to develop the technical design of the MVG and PG, to define their organizational requirements and options, and to move these initiatives

[1] In this context, reproductive health supplies are defined as contraceptives that include male condoms, female condoms, oral contraceptives (emergency orals, combined orals, progestin-only orals), implants, injectables, and IUDs. This definition is consistent with previous studies and does not include maternal health commodities or antibiotics for treatment of sexually transmitted infections.

[2] For the purposes of this study, subscale is defined as failing to leverage volume discounts, and suboptimal is defined as failing to leverage manufacturer guarantee discounts.

from concept to reality, focusing on practical, implementable solutions.

The technical design and organizational options articulated in this study are a departure from earlier studies in several key ways. Whereas previously the mechanisms potentially could have been joined together in a "hybrid" approach, the current design disaggregates them into distinct products based on their differing costs, capability requirements, and customers. The mechanisms are now distinct offerings with different implementing organizations. Second, the mechanisms had been structured previously in such a way that the MVG required a capital reserve and the PG required a permanent fund, with more than USD 36 million in start-up costs. In the current design, no capital reserve or fund is needed, and start-up costs are significantly reduced. Finally, the previous design required a new organization to manage the mechanisms. In the current design, there is no need for a new organization, but instead, new relationships and arrangements with existing organizations will be needed to implement and manage the mechanisms.

The technical design is driven by market opportunities and potential customers, which in turn drive the organizational structure and investment requirements. For the MVG, the market opportunity is significant, as there are currently no open framework agreements within the RH community to impact pricing, quality, or delivery terms. To maximize impact and increase transparency in the overall market, the MVG would be available to all customers, including procurement agents and country-level public- and private-sector purchasers of RH commodities. Acting as an open procurement platform, the MVG would guarantee a minimum volume to manufacturers to secure pricing, terms, and quality, which would be accessible to all customers, regardless of the procurement channel. As the largest relevant procurer of RH supplies, UNFPA has been recognized by donors and stakeholders as the most appropriate organization to manage and promote the MVG as a new business line.

The PG provides an opportunity to address several financing issues that impact RH commodity security. Fundamentally, the PG will provide short-term credit for commodity purchases when funds are not available for timely procurement. Its primary function would be to address delays in the flow of funds from donor to recipient once a pledge has been made. This is a low-risk transaction—the most preferable in the context of the design. The PG could potentially also address other funding variability issues, such as the flow of funds within a country (e.g., in-country transfers from a ministry of finance to a ministry of health) or funding shortfalls if a pledge ultimately were less than expected. Application of the PG mechanism to these funding issues would most likely result in a significantly different risk assessment, potentially altering participation eligibility and/or credit terms. For this type of situation to be attractive and feasible, it would likely require a third-party guarantor with excellent creditworthiness and a willingness to absorb the risk and transform the economics of the transaction.

The PG could be accessed for all RH purchases by recipients of donor-funded (and possibly government-funded) procurement, and could expand quickly to other types of health commodities (e.g., malaria, HIV/AIDS, and TB supplies) to provide greater scale and impact. The total potential market, when other donor-funded health commodities are included, is ~USD 2.6 billion annually. The PG would be created as a service offering by one or multiple banks, with program administration and

governance housed in a separate organization. The ultimate structure of the PG organization, in terms of program administration, governance, and provision of finance, will depend on the organizations selected to manage and provide financing for the PG, to be determined in the next phase of work.

The PG and MVG will have the potential to significantly improve RH commodity security. Some of the most important benefits, such as increased access, improved product quality, and transparency of prices, are difficult to quantify, but undoubtedly significant. For the MVG, the quantifiable benefits will be derived by addressing subscale and suboptimal orders. We estimate that these will amount to ~USD 3 to 11 million over three years. Benefits are directly tied to usage, so donors can view usage as a measurement of success and tie ongoing funding to impact. The proposed structure for the MVG would require a three-year funding envelope of ~USD 2 to 4 million, which represents a 150 to 250% return on investment (ROI).[3] The quantifiable benefits of the PG will result from reducing the cost of capital and the number of emergency shipments for customers. It is estimated that the PG will result in an expected savings of ~USD 5 to 10 million over a three-year period, depending on usage. Costs associated with the PG over this same time period would require a funding envelope of USD 4 to 7 million. The PG presents a relatively low-risk investment case, because 50% of costs are tied directly to usage; less volume leads to lower costs.

To move forward with implementation, next steps include continued exploratory discussions with potential implementing organizations to confirm selection of the PG's managing organization and UNFPA's participation in managing the MVG. Once confirmed, a critical focus will be to build the organizational capacity of the managing organizations, including hiring key personnel and creating an internal governance system and processes. An Expression of Interest process is also recommended to select the bank(s) that will act as financing providers for the PG. With the mechanisms more developed, further marketing and outreach to potential customers will be needed to ensure uptake and utilization of the mechanisms. Finally, donors and stakeholders in the RH community will be engaged on an ongoing basis to ensure that their suggestions and concerns are incorporated, and to ensure support for the initial start up and ongoing operational costs.

The MVG and PG present a unique opportunity for the RH community to demonstrate leadership in innovative financing and procurement, creating new linkages to major players in global health (e.g., the Global Fund, UNITAID) and increasing the visibility of RH in the broader global health community. Success in these efforts will ultimately require several critical conditions to be met by the RH community:

(1) sustained focus on the PG and MVG "customers" who make RH purchasing and financing decisions at the country level

(2) willingness to take risks and test new approaches,

(3) collaboration and commitment from donors, and

(4) advocacy by members of the RH community to ensure that efforts move forward and are successful.

[3] The ROI was calculated by matching low cost estimates with low benefits estimates and high cost estimates with high benefits estimates. Because both costs and benefits are volume driven, low-end and high-end estimates will correspond with each other. Cost estimates for the MVG include only forecasting at a global level.

Abbreviations

CHAI – Clinton HIV/AIDS Initiative

DfID – UK Department for International Development

EOI – Expression of Interest

FTE – Full-time equivalent; the amount of work time that would be contributed by one person, even if spread over multiple individuals

GAVI – GAVI Alliance (formerly Global Alliance for Vaccines and Immunization)

ICPD – International Conference on Population and Development

IFFIm – International Finance Facility for Immunisation

IHP+ – International Health Partnership

IUD – Intrauterine device

JSI – John Snow, Inc., contracted by USAID

KfW – KfW Entwicklungsbank, the development bank of the German government

LMI – Low- and middle-income

MoF – Ministry of Finance

MoH – Ministry of Health

MSD – Medical Supplies Department of the Tanzanian Ministry of Health

MVG – Minimum Volume Guarantee

NGO – Nongovernmental organization

RFP – Request for Pricing/Request for Proposals

RH – Reproductive Health

RHSC – Reproductive Health Supplies Coalition

PFSA – Procurement Fund and Supply Agency (Ethiopia)

PG – Pledge Guarantee

PSA – Procurement Service Agents

ROI – Return on Investment

SWAp – Sector wide approach

TA – Technical Assistance

UNFPA – United Nations Population Fund

1. Introduction

1.1 Background

A sustained effective and efficient supply of quality reproductive health commodities is critical to protecting people's health and improving livelihoods. The last 40 years have seen tremendous improvements in the reproductive health of men and women in low- and middle-income (LMI) countries. In that time, contraceptive prevalence rates globally have risen from an average of around 10% to more than 60%. The number of LMI countries with official population policies has grown from 2 to 115, while total fertility rates have dropped from 6 to 2.6.

1.2 Relationship to Global Reproductive Health and Development Goals

Reproductive health is a fundamental human right, recognized by the International Conference on Population and Development (ICPD) and in the U.N. Millennium Development Goals (MDGs). Current efforts and programs by donors, multilateral agencies, and NGOs to help developing countries increase access to RH supplies for those in need have been successful, but fundamental gaps in access persist.[4] Overall contraceptive use among women at risk of unintended pregnancy remains modest in most developing regions and is particularly low in sub-Saharan Africa (18%). Reaching these populations requires three advances: 1) increased resources to fund reproductive health commodity supply and delivery 2) more efficient and effective supply and delivery of products, and 3) increased demand generation.

This work builds on lessons from existing initiatives in global health that were designed to address similar problems in financing and procurement. For example, the William J. Clinton Foundation's "Clinton HIV/AIDS Initiative" (CHAI) has negotiated global framework agreements to increase leverage in negotiating price reductions for antiretroviral medicines to treat HIV. The Global Fund to Fight AIDS, Tuberculosis and Malaria recently began offering pooled procurement, a voluntary mechanism for Global Fund countries to purchase HIV/AIDS, TB, and malaria medicines, with the goal of improving price and delivery outcomes. The GAVI Alliance recently launched the International Finance Facility for Immunisation (IFFIm), an innovative financing mechanism that sells bonds on the financial market to facilitate frontloading of funds for inoculations.

1.3 Challenge

The low prevalence of modern contraceptive use can be attributed to supply-side and demand-side issues. This initiative has focused on the supply-side constraints. In this context, studies have identified significant inefficiencies and suboptimal practices in the global aid architecture for the financing and procurement of RH supplies, which

[4] In this context, *reproductive health supplies* are defined as contraceptives that include male condoms, female condoms, oral contraceptives (emergency orals, combined orals, progestin-only orals), implants, injectables, and IUDs. This definition is consistent with previous studies and does not include maternal health commodities or antibiotics for treatment of sexually transmitted infections.

negatively impacts their availability. Funding variability, lack of alignment of funding and procurement cycles between donors and procurement agents/receiving governments, and uncoordinated procurement processes lead to three problems: 1) higher costs due to subscale contracts and emergency shipments, 2) stock-outs and wastage of products as a result of longer supply lead times, and 3) an inability to effectively manage the in-country supply chain. Additionally, variability in RH product quality has emerged as a key issue affecting outcomes.

1.4 Prior studies

The Reproductive Health Supplies Coalition (RHSC), with funding from the Bill & Melinda Gates Foundation, DfID, and USAID, commissioned a series of studies to identify constraints to providing reproductive health supplies and to make recommendations for how best to address these challenges. McKinsey & Company in 2006 conducted one such study, which proposed financing strategies to improve efficiencies in the RH commodity financing/procurement system. The study recommended implementing two mechanisms to address inefficiencies and improve effectiveness: the Minimum Volume Guarantee (MVG), a procurement mechanism, and the Pledge Guarantee (PG), a financing mechanism. The MVG and PG would be novel tools in the global health context, aiming to address supply-chain and procurement issues stemming from donor finance variability and subscale/suboptimal procurement.

Further, these mechanisms would potentially provide incentives for improved demand forecasting both at the global and country level, strengthened country procurement systems, better in-country supply-chain management (e.g., distribution and warehousing), and expansion of the supplier base.

Recently, Dalberg was commissioned by the World Bank on behalf of its funders, KfW, the Ministry of Foreign Affairs of the Netherlands, and DfID, under the guidance of the RHSC, to develop the technical design of the MVG and PG, to define organizational requirements and options, and to develop an implementation plan.

2. Project Objectives and Approach

2.1 Objectives

Dalberg has assisted the RHSC Systems Strengthening Working Group by refining the design components of the MVG and PG for RH commodities and by developing a business model for the implementation of the mechanisms.

Specifically, Dalberg has focused on:

- Developing a detailed technical design for the PG and MVG mechanisms
- Validating/challenging demand, customer, donor and supplier assumptions
- Exploring the interaction between the two mechanisms
- Recommending an organizational structure and design
- Developing practical recommendations for locating, managing, and operating the services
- Assessing relative costs, benefits, and investment requirements
- Identifying implementation priorities
- Articulating requirements for the rollout and launch, to be undertaken in the next phase of work

The project mandate was not to revisit the case for an MVG and PG, but instead to focus on how to make these concepts a reality and to ensure that they will contribute to the goals of improved RH commodity availability.

The project has built upon ongoing work conducted by the JSI/DELIVER project addressing in-country RH commodity security and supply chains. JSI/DELIVER's prior study on country demand and requirements for the PG and MVG provided insights on both existing needs and challenges to be addressed. The JSI team also assisted with directional guidance on which decision-makers and potential customers to target during the in-country interview phase.

2.2 Design principles

While adapting and refining the MVG and PG mechanisms, the project personnel adhered to a set of design principles agreed to by the RHSC's Systems Strengthening Working Group. The mechanisms were designed to:

- Respond to user needs. Customer needs were assessed through on-the-ground customer interviews in Ghana, Ethiopia, and Tanzania. This feedback was subsequently incorporated into the design.
- Support country ownership and health systems. In keeping with overall efforts toward health-systems strengthening, the mechanisms should leave primary responsibility for effective procurement to the countries that will be the customers of these mechanisms. The mechanisms should work through existing health-delivery channels.
- Complement existing global health mechanisms. The mechanisms should work within the existing global-health infrastructure and avoid establishing new, duplicative, or contradictory organizations, boards, or processes.

- Support quality products. Rigorous quality-assurance standards should be set in place to ensure that the mechanisms are used only to assist with procurement of products that meet quality benchmarks.
- Support market development. To ensure the long-term viability of the RH supplies market, the mechanisms should seek to ensure sustainable economics for existing suppliers while cultivating new products and new manufacturers. The mechanisms should also create incentives for suppliers to participate specifically in developing countries' RH commodities markets.
- Create a solution bounded by current circumstances. The MVG and the PG were designed to function in the current RH environment. Changes to that environment, or expansion beyond RH, would bring a new set of operational and organizational considerations.

In the design, care was also taken to avoid establishing mechanisms that would:

- Be a burden on recipient countries. The proposed mechanisms will be designed to be as attractive as possible to the countries that stand to benefit. Effort has been made to minimize or eliminate the need for extra work or processes.
- Create another single-issue-focused vertical in the health infrastructure. Although this work is targeted toward the RH community, it is intended to be broadly applicable. The procurement and finance problems that are being addressed are related and not specific to RH.
- Create a new organization. Implementation of the mechanisms will involve existing organizations and minimize upfront capital costs.
- Duplicate existing efforts. The business case for establishing the MVG and PG relies on an understanding of the market opportunity. Part of the present analysis is a consideration of how the problems are currently being addressed and whether these mechanisms would provide a solution that is truly needed.
- Impede entry of new products. Care must be taken when entering into longer-term contracts and consolidating purchases to ensure the long-term viability of a competitive market.

2.3 Rationale for two separate mechanisms

Although previous work in this area led to proposals for the MVG and PG as single, "hybrid" products, Dalberg has concluded that they should be treated as separate entities. Although it is likely that some customers will draw on both mechanisms, closer examination of the mechanisms' expected customers, and of the costs and capabilities required to administer the mechanisms, reveals that the MVG and the PG should be distinct. For customers that do use both mechanisms, there is the potential to "bundle" the products and target customers through joint marketing as appropriate.

The MVG is designed primarily to assist customers, including procurement agents, who

currently do not have sufficient scale to obtain favorable price and delivery terms. This group is distinct from the finance professionals who might use the PG to help smooth funding volatility. Put differently, not all MVG customers will need the PG to purchase products, and not all PG customers will need the MVG to finance products.

The costs and capabilities required to operate the MVG and PG are also distinct. The MVG's operational costs will be driven by procurement personnel, system operations, and marketing and outreach. While the PG will also incur marketing and outreach costs, its personnel costs will be focused on program administration. Additionally, much of the cost of the PG will be driven by the cost of the debt, which is a function of usage. In terms of capabilities, the MVG will be run by a small group of professionals who are skilled in forecasting and negotiation, while the PG will need the participation of banks to conduct financing activities (e.g., assessing risk and extending credit) and a managing organization to provide program administration and governance.

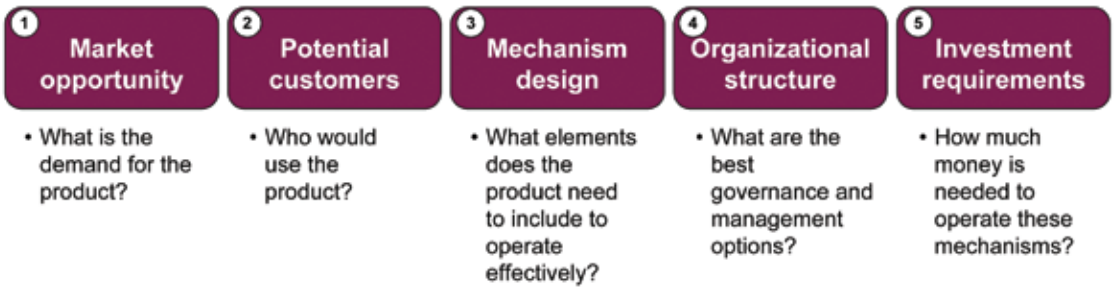
The uptake and utilization of both mechanisms will depend on marketing and outreach. Through marketing, the products could be "bundled" for certain customers who would benefit from the procurement aspects of the MVG and require funding from the PG to make the transactions possible.

2.4 Business case

The business case for the MVG and the PG was developed around five elements and associated questions.

The business case provided the structure around which the design for the MVG and PG were built.

Figure 1: Elements of the MVG and PG business case



3. The Minimum Volume Guarantee (MVG)

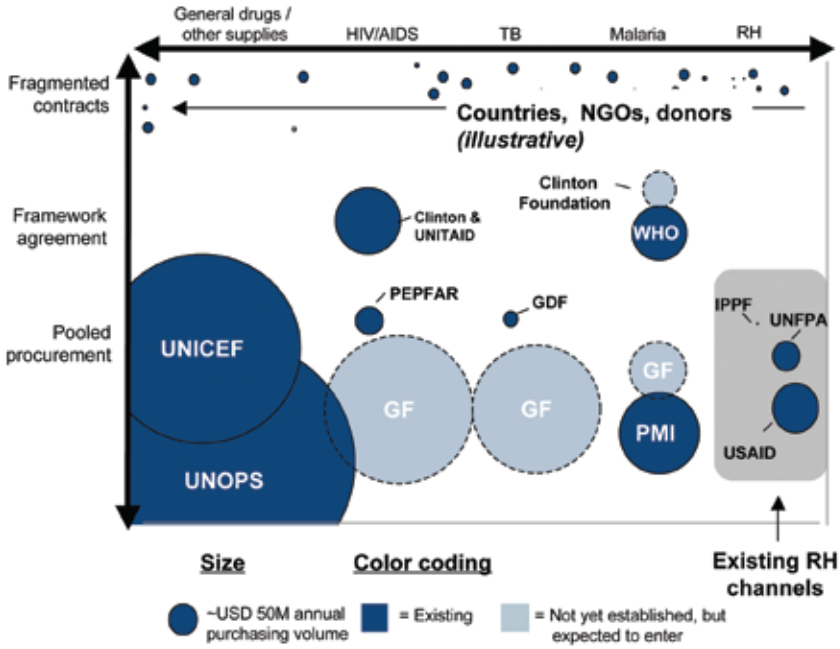
3.1 Product description

There is a need to increase access to optimal pricing and delivery terms, to improve the consistency of product quality, and to minimize the complexity of the supply chain for RH commodities. Current suboptimal pricing, quality, and delivery outcomes are due, in part, to disaggregate purchasing practices, which generate many small purchase orders at higher than necessary prices. In response to these needs, the MVG is being developed, a procurement mechanism that will provide a quantity guarantee to manufacturers in exchange for improved pricing and delivery terms. The MVG would create an open procurement platform to be accessed across the RH community by low- and middle-income country purchasers of RH supplies.

3.2 Market opportunity

Although many organizations procure health supplies, no organization is currently addressing the need for framework agreements in RH. Furthermore, procurement services that address multiple disease area supply markets, such as the Global Fund, are growing but are not yet established in RH. This gap creates an opportunity for an RH MVG mechanism to lead the field now and to be well positioned to establish partnerships with others in the future.

Figure 2: Global health procurement participation, 2008



Volumes illustrative only Sources: Clinton Foundation: "CHAI RFP for OI Drugs" www.clintonfoundation.org and "UNITAID Factsheet" www.unitaid.eu; GDF through (GTZ): "GDF Facts and Figures"; http://www.stoptb.org/gdf/whatis/facts_and_figures.asp.; Global Fund: "Distribution of Funding after 6 Rounds," www.theglobalfund.org/en/funds_raised/distribution/. IPPF, UNFPA,, USAID: "Global Summary of Shipments Report" http://rhi.rhsupplies.org/rhi/shipmentsummary.do.; PEPFAR: "Testimony before the House Committee on Foreign Affairs, 24 April 2007, http://www.pepfar.gov/press/83436.htm.; PMI: USAID Contract with JSI, http://www.fightingmalaria.gov/funding/deliver2-iqc.pdf.; UNICEF: "Procuring supplies for children," www.unicef.org/supply/index_procurement_services.html.; UNOPS: "What UNOPS Procures," www.unops.org/UNOPS/Procurement/WhatUNOPSProcures/.; WHO: Estimate.

3.3 Potential customers

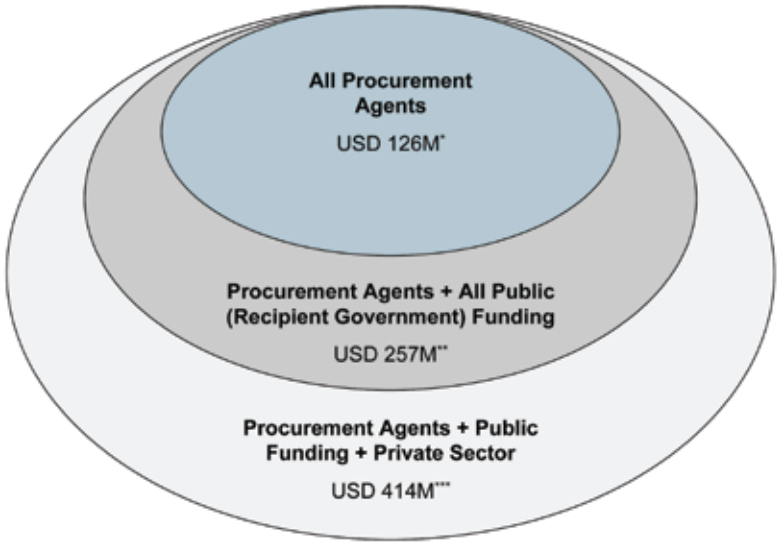
The potential customers of the MVG are governments, procurement agents, or NGOs that procure RH supplies. Extension to private sector wholesalers and buyers would also be feasible for the MVG as it develops. However, a more realistic estimate of usage can be derived by segmenting this broader set of customers based on current funding sources and procurement methods.

1. **All RH supplies purchased through procurement agents.** This segment applies to products purchased by customers automatically enrolled by using UNFPA as a procurement agent or by third-party procurement agents (organizations that act on behalf of governments or NGOs to procure commodities).

2. **All RH supplies purchased through procurement agents or publicly financed.** This group includes the previous group plus all other publicly funded RH supplies, regardless of procurer.

3. **All RH supplies purchased through procurement agents or financed through public or private sources.** This group represents all RH supplies in developing countries.[5]

Figure 3: MVG annual addressable market by user segments, 2007



Note: Excludes USAID and IPPF spend. Only likely MVG products are included: female condoms, orals, IUDs, injectables and spermicides. Does not include sterilization for China. Most donor-funded products are purchased through PSAs.

Source RHI 2007 data.
*Methodology for donor funding from McKinsey's 2006 analytical model
** Methodology for government funding from McKinsey's 2006 analytical model
*** Methodology for private-sector market from McKinsey's 2006 analytical model

[5] Includes Group I and II countries as defined in "Contraceptive Availability Study: Methodology and Key Findings," Mercer, 2005, and "Reproductive Health Financial Mechanism Analysis," McKinsey, 2006.

Figure 4: Preliminary assessment of products by dimension of MVG value

	Lower prices	Improved supply and delivery outcomes	Portfolio improvements, including quality
Male condom	○	◔	◑
Female condom	◑	◔	◕
Implant	◔	◔	◑
Injectible	◑	◔	○
IUD	◑	○	◑
Combined orals	○	◕	○
Emergency orals	◑	◑	◑
Progestin-only orals	○	◑	◑

● = Urgent need or opportunity ◑ = Need or opportunity exists ○ = No need or opportunity

Source: UNFPA and RHI data; expert consultation; Dalberg analysis.Note: Dataset does not include entire market and as such is limited to UNFPA, USAID, and IPPF; other existing buyers may be paying higher prices for smaller quantities across products.

3.4 Potential products

Potential benefits from the MVG can be described in terms of price, improved supply and delivery outcomes, and opportunities for "portfolio improvements," which include increased uptake within countries and an improved proportion of qualified products. Initial assessment indicates that there is potential value, to a varying degree, across these three dimensions for all in-scope RH products. While some products, such as injectables and IUDs, have the potential for reduced prices, others, such as the male condom, which already have experienced significant price declines, would be more likely to benefit from improved delivery terms and quality. Products must be further assessed with the implementing organization through a supplier selection process conducted through a request for proposals (RFP) to determine achievable value along these three dimensions by product.

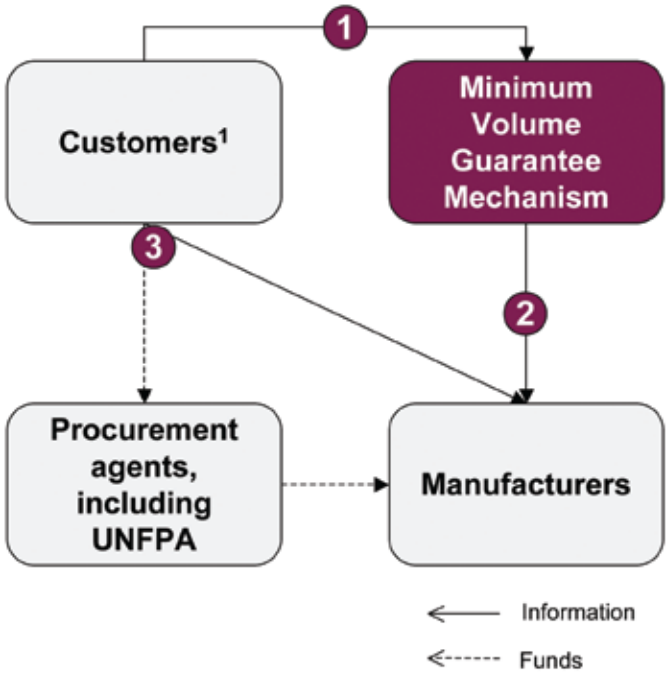
The consolidation of volume that the MVG would provide should support low-volume products, new products, and new suppliers by guaranteeing a market and reducing customer acquisition costs. It has the potential to positively impact incentives for these suppliers by aggregating demand across a fragmented customer base. Additionally, the MVG has the potential to improve market conditions for existing products and suppliers by consolidating portions of a highly fragmented market, which could help deter suppliers from exiting the market.

3.5 Mechanism design

In keeping with the design principles, the MVG is designed to cause minimum disruption to normal market processes and minimize the need for new processes or staff.

The MVG design comprises four primary participants:

Figure 5: MVG transaction flow



[1]Recipients of donor funding, including countries, NGOs, UNFPA.Source: McKinsey and JSI DELIVER analysis; Dalberg analysis.

- **The MVG administration**. A small (3 to 5 FTE) group of people focused on administering the new mechanism.
- **Customers.** The countries or NGOs that purchase RH supplies. The MVG is designed for their benefit.
- **Procurement agents.** The intermediaries between customers and manufacturers, who handle ordering and purchasing.
- **Manufacturers.** The producers of the desired product, usually pharmaceutical- or medical-supply companies. Manufacturers will be selected by request for proposal (RFP). Multiple manufacturers may be selected to ensure that all regions and product types are sufficiently served.

The MVG transaction process can be described in three steps:[6]

1. **Demand forecasting.** Customers that would like to use the MVG mechanism provide demand forecasts indicating the minimum quantity of supplies that they are committed to buying and the maximum amount that they anticipate buying for the year.[7] The mechanism will aggregate these forecasts and use

[6] Details of the transaction flow are to be further refined by/with the managing organization (UNFPA).

[7] Technical assistance (TA) required to improve country forecasting will be assessed by the managing organization, and relevant contracting organizations will be engaged as needed. This TA should leverage existing capabilities and be integrated into existing TA initiatives.

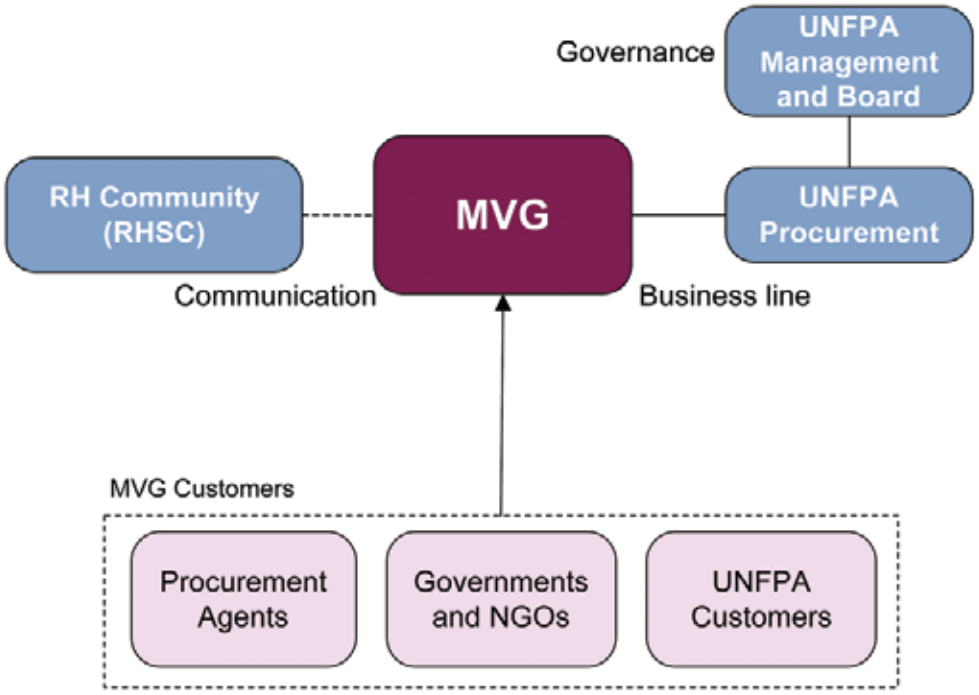
them as inputs into negotiations. The MVG mechanism as articulated here does not provide technical assistance at the country level to improve forecasting, but there is the potential to mobilize resources, contract capacity building expertise, and integrate forecasting improvement for the MVG into existing programs. This will be at the discretion of the organization chosen to manage the MVG.

2. **Master contracts established.** The MVG administration establishes master contracts with manufacturers for specific products, guaranteeing a minimum volume, the magnitude of which will depend on the mechanism's appetite for risk and the forecasts provided by the buyers. In exchange for this guaranteed minimum volume, the manufacturer would extend favorable terms to buyers making purchases through the master contract. The contract will include a provision that allows registered customers to purchase additional volume at the favorable terms up to the ceiling established through the forecasts.
3. **Customers access master contracts through any procurement channel.** Customers will continue to purchase through their current procurement channels, but will receive improved pricing, quality, and terms on volume purchased through the master contracts. Volume beyond the committed amount but less than the ceiling may be assessed a modest user fee. This fee will be established to prevent a free-rider problem in which all buyers want the benefit but none are willing to take the risk of committing volume. Revenue from this user fee could be used to offset the costs of running the mechanism.[8] Purchases in excess of the ceiling provided to the MVG will not be eligible for the master MVG contract and will be conducted on terms agreeable to both parties, independent of the MVG. Purchasing may occur through an electronic platform. Opportunities to leverage RHInterchange (the existing procurement tool and information exchange platform) will be examined, although the MVG may require a new electronic platform. Customers will be treated similarly regardless of which procurement channel they use.

The narrower and more precise the forecasts, the more leverage the MVG will have to negotiate better deals. A set of incentives and disincentives will need to be designed to encourage good forecasting. The most appropriate interventions will be investigated and determined through additional country outreach.

[8] All volume not at risk could be subject to a fee, although there are several practical ways that it could be structured for UNFPA given its role as a procurer for several countries, a customer itself, and the operator of the mechanism. The application of a user fee is still under consideration with the managing organization and funders, with consideration for the implications for incentives and any perceived conflict of interest.

Figure 6: Organization and relationships to support the MVG



3.6 Organizational structure

The MVG will require a small staff to execute its functions and a governance structure to oversee its strategic direction and take fiduciary responsibility. In keeping with the design principles defined earlier, the MVG will **not** require a new organization to be created. Instead, it will be managed by an existing organization and make use of that organization's governance, management, and administration capabilities.

As one of the largest funders and procurers of RH supplies, UNFPA was supported by stakeholders as a high-potential managing organization for the MVG. Given this starting point, UNFPA's candidacy was considered along several dimensions:

- **Mission fit.** Has a history of working in procurement of RH supplies; an existing commitment to RH programs and advocacy.
- **MVG mechanism capabilities.** Has procurement capabilities, including negotiation, forecasting, outreach, and marketing.
- **Relative cost effectiveness.** Requires only incremental, "lean" resourcing.
- **Stakeholder relationships**. Maintains relationships at the country level, including national governments and NGOs; has relationships with suppliers.

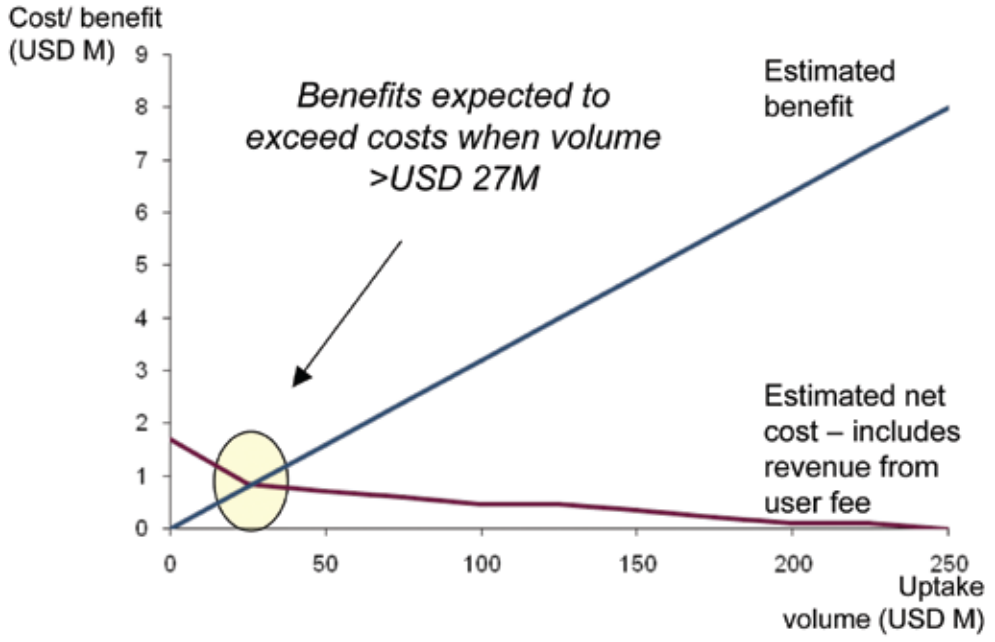
- **Governance capabilities.** Has an existing governance structure, in which the MVG business line could sit.
- **Support of donor community.** Is supported by stakeholders and donors.
- **Potential speed of implementation.** Can quickly adopt the new processes and resources needed to launch the MVG as a new business line.

UNFPA meets these criteria and is thus being considered as a high-potential managing organization. As the managing organization, it could launch the MVG as a new business line, taking advantage of its existing governance structure, procurement capabilities, and administrative functions.

UNFPA could provide structured and scheduled communication to the RHSC around progress and seek input on potential issues.

UNFPA staff would perform the day-to-day work of the mechanism. This staff would be funded through the MVG mechanism and recruited specifically for this work. Approximately three FTEs would be needed to perform the baseline work of the MVG, and additional FTEs could be recruited as volume increased. The core capabilities required are donor coordination, procurement forecasting, negotiation and management, marketing and outreach, and communications. The specific resource/FTE estimates and roles are detailed in the annex.

Figure 7: Estimated MVG costs and benefits at given volumes

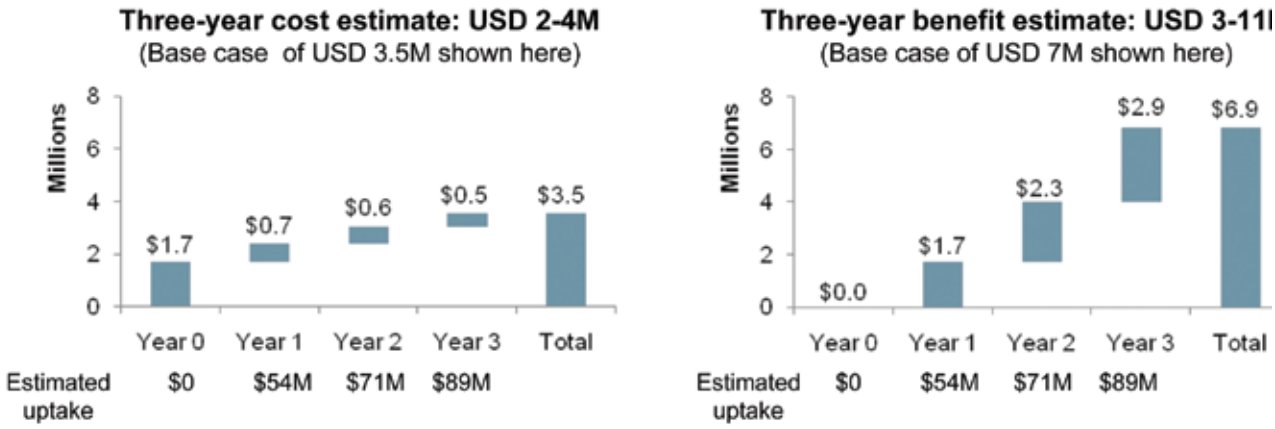


Note: USD 257M is the maximum annual uptake.

This model assumes that 50% of the uptake is not "at risk" and will be charged a user fee. Hence, total MVG costs decrease over time as user-fee revenues increase faster than operational costs.

Source: McKinsey analysis (for benefits methodology) and Dalberg research and analysis.

Figure 8: Estimated MVG costs and benefits over three years



Source: McKinsey analysis (for benefits methodology) and Dalberg research and analysis.

3.7 Investment requirements

The costs of the MVG will be driven by two types of variables: uptake (e.g., volume of use) and mechanism design. By making assumptions about both (found in the annex), we estimated annual net operating costs would be ~USD 0.5 to 1 million, with the benefits exceeding the cost once the volume of uptake exceeded ~USD 27 million. These assumptions translate to an expected three-year cost of USD 2 to 4 million, when start-up costs are included. Benefit estimates are driven by uptake and assumptions around current versus improved outcomes (e.g., the percentage of savings that is expected through negotiations). Benefits are estimated at USD 3 to 11 million, depending on uptake. The estimated return on investment is ~150 to 250%. Figure 7 charts estimated costs and benefits at given volumes using the "base case" set of assumptions around mechanism design. Figure 8 demonstrates how the project cost and benefits could be rolled into a three-year envelope by making uptake assumptions.

Costs. For the MVG, costs will consist of start-up and organizational expenses, totaling ~USD 2 to 4 million over the first three years. Start-up costs include allocations for legal fees, hiring and recruiting, structure and implementation, systems (e-commerce platform), and administration (~USD 1 million). Ongoing annual organizational costs include three FTEs in year zero (estimated levels likely ~UN P-5, P-4 and P-3 pay grades; to be confirmed as move forward with start-up of business line), increasing to five FTEs in years one through five. Organizational costs also include systems operating costs as well as marketing and outreach costs. A user fee of 0.5 to 2.0% assessed on volume purchased in excess of the amount guaranteed by the master contract (see discussion in Section 3.5, Mechanism design) will be used to offset a portion of this cost. The fee should be minimal to encourage usage, but will also act as an incentive to encourage participation in the guaranteed portion of minimum volume. The estimated costs do not include technical assistance, as it will likely be leveraged from, and integrated into, existing programs.

Benefits. As discussed earlier, the expected benefits of the MVG fall into two categories: effectiveness and efficiency. Although effectiveness benefits such as increased quality, reduced stock-outs, and an overall more responsive, better-functioning supply chain are more difficult to quantify, they are at least as important as the quantifiable efficiency benefits. The efficiency benefits will consist of a reduction in order that are subscale (do not take advantage of volume discounts) and suboptimal (do not take care of discounts resulting from manufacturer guarantees).[9] Subscale orders are estimated at 20% of uptake and will realize savings of 6 to 11%, yielding USD 3 to 5 million in savings over the first three years. Suboptimal orders are estimated at 60% of uptake and will realize savings of 0-5%, yielding USD 0 to 6 million over the first three years. Additionally, an expected externality of the MVG is increased market transparency.

Additional details about costs and benefits assumptions can be found in the annex.

3.8 Risks and risk-mitigation strategies

Potential risks and mitigation strategies are described below in descending order of severity.

Table 1: MVG Risk Assessment

Risk	Description	Mitigation
Execution	Significant risk lies in the execution of orders fulfilled under the MVG contract. In negotiations, the MVG may not be able to secure sufficiently favorable terms to demonstrate improvement over the terms others already receive. Despite negotiated terms, orders may be delayed and quality may be substandard.	RHSC should condition receipt of the MVG managing role on implementing "best procurement practices." The managing organization should track and report progress.
Conflict of interest	UNFPA is both the managing organization and a customer. If other customers perceive that UNFPA does not offer the best prices and terms to all customers, they may be less inclined to participate.	UNFPA must clearly separate the MVG from other UNFPA entities; align incentives so that financial benefits to UNFPA are limited; and actively communicate that the intent of MVG is to increase pricing transparency and access to quality RH products. This risk also could be more aggressively addressed by structuring the funding and contingencies from donors so that UNFPA does not financially benefit from the MVG.

[9] Benefits estimation methodology taken from "Reproductive Health Financial Mechanism Analysis," McKinsey, 2006.

Insufficient funding	Customers might not have adequate funding to purchase RH commodities despite having submitted accurate forecasts.	The services of the MVG and PG could be "bundled" to ensure that customers are able to deliver on their commitments.
Less competitive markets	By consolidating volume, the MVG could create a less competitive market for the procured commodities.	Renegotiate contracts annually, placing special emphasis on varying suppliers where possible. UNFPA must also continually assess the individual RH product markets and restructure their procurement strategy as necessary to ensure appropriate market conditions are created.
Unfulfilled impact	Improved health outcomes are unrealized due to supply-chain complications that arise once the product is in-country.	Although this is an important consideration, its mitigation falls outside of the capabilities of this mechanism. The MVG should manage expectations by communicating its objectives clearly while also considering partnerships with other organizations better suited to mitigate downstream supply-chain risk.
Local supplier damage	By consolidating purchases under a single global mechanism, the MVG could risk depriving local manufacturers of business.	While some local suppliers will undoubtedly suffer, UNFPA could facilitate a registry of local suppliers and focus on driving a certain percentage of volume to those suppliers each year.
Political	Other procurement service agents (PSAs) may perceive the MVG to be increasing UNFPA's "market share" in RH commodity purchasing and thereby view it as a threat.	The MVG should be a transparent platform that is open to all customers, regardless of whether they use UNFPA procurement. All customers will be assessed similar fees for "non-committed" volume that goes through the mechanism.

Forecasting	Countries could lack capacity to provide accurate forecasts, which would impact the MVG's ability to assume risk/volume required to impact delivery terms, pricing, and quality.	MVG should work to increase the volume/risk threshold based on its internal estimates and historical volume. Similarly, it can partner with non-country purchasers (e.g., NGOs and PSAs) to increase the volume at risk and impact pricing, terms, and quality. The MVG's managing organization can also utilize the revenue from its user fee or channel donor funds toward technical assistance and capacity building to improve country forecasts over time.
Limited competition for prequalified suppliers	For products with a limited number of pre-qualified suppliers, competition for contracts and, consequently, gains will be limited.	MVG's managing organization can use this potential risk as a tool to promote prequalification by demonstrating a stable market. The organization may consider providing incentives for new suppliers to enter. The structure of contracts will be critical to allow room for new suppliers and newly prequalified suppliers to compete.
Market distortion	The MVG could lead to monopsony (i.e., a customer being the sole buyer of products) or promote monopoly (i.e., a manufacturer being the sole supplier of products)	USAID, one of the largest purchasers of RH supplies, has indicated that it will not participate in the MVG. While unfortunate, this decision does limit the risk of monopsony. Monopoly is unlikely given that various suppliers will be needed for different products in different regions.

4. The Pledge Guarantee (PG)

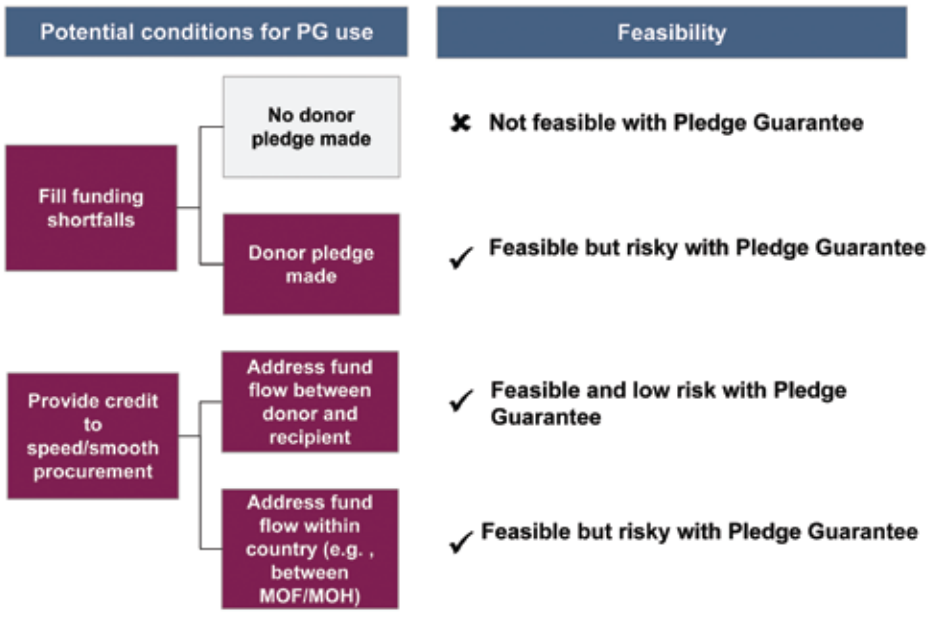
4.1 Product description

There is a need to increase access to short to medium-term credit for RH commodity purchases. The volatility and unpredictability of current funding flows lead to costly procurement and reduce the ability of developing-country governments and NGOs to conduct long-term planning and proactive supply-chain management. In-country interviews have demonstrated that delays of up to six months can exist between a donor's pledge and the funds arriving in the recipient's bank account. One solution, the use of letters of credit, often comes at a high cost to the recipient of donor funding. To help address these issues, the RHSC is developing a Pledge Guarantee (PG), which would advance money to recipients of donor pledges so that they can procure RH commodities on a timely basis. The PG would rely on the donor's creditworthiness to secure a lower cost of capital. The PG is expected to result in fewer emergency shipments, fewer stock-outs, and reduced cost of capital for recipients. Additionally, by aggregating purchasing capital, the PG will facilitate usage of the MVG which can secure better terms and prices for quality products.

4.2 Market opportunity

The market opportunity lies in reducing the problems created by delayed and volatile donor funding. Data suggest that more donor funding tends to arrive toward the end of the year. Most UN agencies and national governments are not allowed to access credit to smooth their cash flow, and thus they are left concentrating their procurement activities in a short time period. Providing funds for purchases in the near term has the potential to significantly smooth the procurement process.

Figure 9: Potential uses of the PG and their feasibility



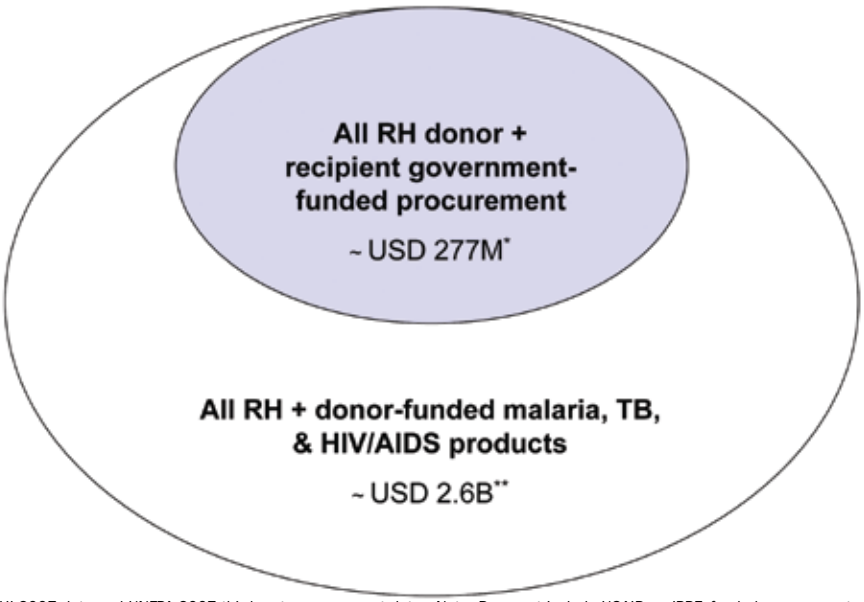
The Pledge Guarantee has the potential to be used in two additional situations, both of which involve greater risk. In one situation, the PG could be used after a pledge is made but before it is committed. In a second situation, the PG could be used to accelerate the flow of funds from a country's ministry of finance to the ministry of health. Due to their increased risk, these types of usage will incur higher costs. One way to mitigate the costs would be to have a third party act as a guarantor on the country's behalf, assuming the risk of default and improving the economics of the transaction.[10]

4.3 Potential customers

For the initial rollout, the potential customer base will be a segment of all governments and organizations that procure RH supplies. Estimated usage can be derived by segmenting potential customers based on current funding sources:

1. **All RH donor + recipient government-funded procurement.** This segment includes all funding from donors for RH commodities plus funds spent by recipient governments on RH commodities. The PG is initially targeted at this group.
2. **All RH, malaria, TB, and HIV/AIDS donor funded products.** This macro segment includes procurement of all RH, HIV/AIDS, TB, and malaria products. While the PG would not seek initially to address this group, if it were successful with RH, expansion to cover purchases of other commodities is a natural next step.

Figure 10: PG annual addressable market segments, 2007



*RHI 2007 data and UNFPA 2007 third-party procurement data. Note: Does not include USAID- or IPPF- funded procurement as both organizations have indicated that they would not be a part of the PG. Government funding from McKinsey's 2006 analytical model.
**The Global Fund. Note: The Global Fund's procurement of product is used as a proxy.

[10] Using a third party guarantor would decrease transaction costs and improve the economics of credit situations that carry a higher degree of risk.

4.4 Mechanism design

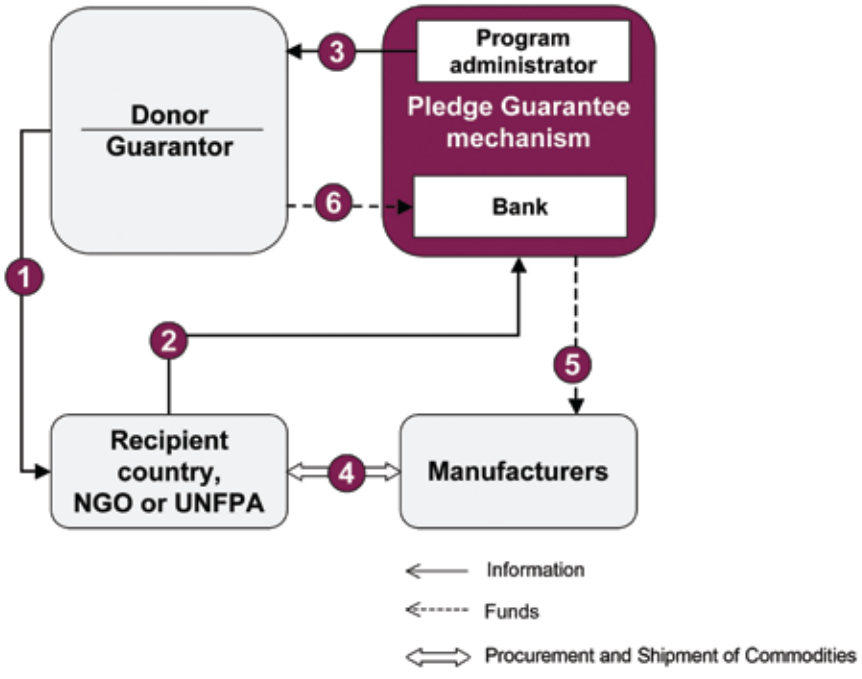
In keeping with the design principles, the PG was designed to cause minimum disruption to normal market processes and to minimize the need for new processes and staff.

This design is comprised of four primary participants:

1. **The Pledge Guarantee Mechanism.** The mechanism has two parts:
   a. **A commercial or development bank(s)** that assesses risk and manages cash flow, and
   b. **A program administrator** that interfaces between the banks and donors/ guarantors, and provides governance.
2. **Donors.** Countries and organizations that provide funding for RH supplies.
3. **Guarantor(s).** A third party with an obligation to repay the debt if the donor defaults.
4. **Recipient Country/Customer.** Countries or NGOs in need of the RH supplies.

Manufacturers also play a role in providing products but are not directly involved in the PG mechanism. They may have knowledge of the PG, given that payment on their invoices will likely come directly from the PG mechanism. The PG transaction process can be described in six steps:

Figure 11: PG transaction flow



1. **Donor pledge made.** The donor makes a pledge to a specific country, NGO, or UNFPA to support RH supplies purchases.
2. **Pledge Guarantee requested.** The pledge recipient, recognizing that it needs to begin procurement but will not immediately receive the pledged funds, notifies the Pledge Guarantee mechanism that it would like to access credit to purchase RH supplies against the donor's pledge.[11] The program administrator would likely be the first point of contact for donors and pledge recipients, but all money would flow through the bank(s).[12] The specific country-level decision maker who accesses the Pledge Guarantee and associated approvals will likely vary by country.
3. **Pledge Guarantee extended.** The PG mechanism confirms the veracity of the pledge with the donor and confirms the donor's participation in the mechanism. To continue the process, the donor must agree to cover the cost of debt service at the agreed upon interest rate for the time between the PG credit extension and payment of the pledge by the donor. Assuming a positive response is received from the donor, the PG then extends credit for an agreed-upon amount to the donor-funding recipient so that it can procure RH supplies. The actual credit extension would come from the bank(s), and the program administrator would likely be involved as a point of contact to verify the pledge and interface with donors and pledge recipients.
4. **Procurement through usual channels.** The recipient country, NGO, or UNFPA procures the necessary commodities using its standard procurement method and channel. During this procurement process, the recipient country, NGO, or UNFPA may need to share certification of the Pledge Guarantee credit with the manufacturer to verify means to pay for the products. The manufacturer then ships the goods and submits an invoice to the PG mechanism.
5. **Payment to manufacturer.** The PG mechanism pays the manufacturer using the donor-pledge-backed credit extension.[13] The exact process flow may vary by country given existing processes and local banking laws.
6. **Payment of donor pledge to the PG mechanism.** When the donor is ready to pay its pledge, these funds are paid directly to the PG mechanism. This payment will cover the principal, debt service, and user fees associated with the credit extended to the recipient of its pledge (i.e., country, NGO, or UNFPA).[14]

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[11] Note: the PG mechanism will consist of a PG business line within a commercial or development bank(s) and PG program administration and governance, detailed in Section 4.5, Organizational Structure.

[12] The specific roles and responsibilities of each party and a more detailed transaction flow will need to be defined once a managing organization is selected for the PG and an Expression of Interest is conducted to select participating bank(s).

[13] The ability of the PG to pay the manufacturer directly, rather than to pay the ministry of finance or health, would help to avoid in-country delays associated with the transfer of funds.

[14] The structure of PG costs will be determined by the bank(s) selected through an Expression of Interest. Based on initial discussions, there are a number of ways to structure this transaction and revenue accrued to the bank, including the use of an interest rate applied to the volume of credit extended and time outstanding, and/or the application of a user fee based on the percentage of loan volume. These costs would most likely be paid by the donor.

A third-party guarantor may also be involved. The guarantor has three primary purposes: 1) to lower capital costs by consistently using the same favorably rated credit guarantor, 2) to enable greater risk by covering the potential default of loans, and 3) to appeal to banks by simplifying transactions by having one guarantor of pledges. A guarantor would be especially useful in facilitating the riskier PG scenarios, such as when a donor has not yet committed money or when the mechanism is being applied to flows between a ministry of finance and ministry of health. The guarantor would have a high credit rating, be a holder of substantial funds, be a mission-driven organization, and have a commitment to increasing access to essential medicines. Potential guarantors could include UNITAID, the Bill & Melinda Gates Foundation, or bilateral donors.

4.5 Organizational structure

Operating the PG will require a governance structure, a program-management body, and financing. In keeping with the design principles, the PG will not require a new organization or new fund to be established. Instead, the PG will be managed by an existing organization and will use several commercial or development-finance providers to access capital.[15] The RHSC has no legal ability to oversee the mechanism, and thus the managing organization would be the formal legal corporation for the purpose of governance.

A program-management and board oversight structure will be needed as an interface between the bank, which manages the financial flows, and the donors, who demand accountability. The program-management function will be performed by a small staff of

Figure 12: Organization and tasks of the PG mechanism

[15] Discussions with a potential managing organization are under way, although no final selections have been made.

approximately two to three FTEs embedded within an existing organization. The staff would be funded through the PG mechanism and recruited specifically for this work. Primary responsibilities for this staff are described in the annex.

The PG has been designed to be an attractive product for a commercial or development bank. Potential providers of the financial functions of the PG will be identified through an Expression of Interest (EOI). Multiple providers will most likely be needed to ensure sufficient geographic coverage.

This product would be financially sustainable for a bank by establishing an appropriate interest rate and, potentially, an additional user fee. The bank would handle all financial transactions; none of the money loaned would pass through the managing organization. The PG managing organization would be responsible for all program-administration and governance functions. This management function is critical because the RHSC is not a legal entity and thus cannot serve this purpose. Additionally, the separation of the bank(s) from the program-administration/ governance function provides for the possibility of enlisting multiple banks. This approach would both foster an atmosphere of competition and also allow for regional variation to best meet customer needs.

Like the MVG, the managing organization for the PG must meet several criteria:

- **Mission fit**. Has a history of working with the private sector on development challenges and an existing commitment to RH programs and advocacy.
- **Program administration capabilities.** Has marketing, outreach, and negotiation skills.
- **Relative cost effectiveness.** Needs only incremental, "lean" resourcing.
- **Stakeholder relationships**. Maintains relationships at the country level, including national governments and NGOs.
- **Governance capabilities.** Has a governance structure, in which the PG program administration would likely sit.
- **Support of the donor community.** Has the support of stakeholders and donors to investigate the management organization further.
- **Potential speed of implementation.** Is an independent nonprofit organization, with the flexibility to be involved in innovative new financing mechanisms; is likely to be able to act quickly.

The PG would be launched as a new business line within the managing organization, taking advantage of its existing governance structure and administrative functions. Two to three new FTEs would be hired to administer the PG.[16] The managing organization would provide structured and scheduled communication to the RHSC around progress and would seek input on potential issues.

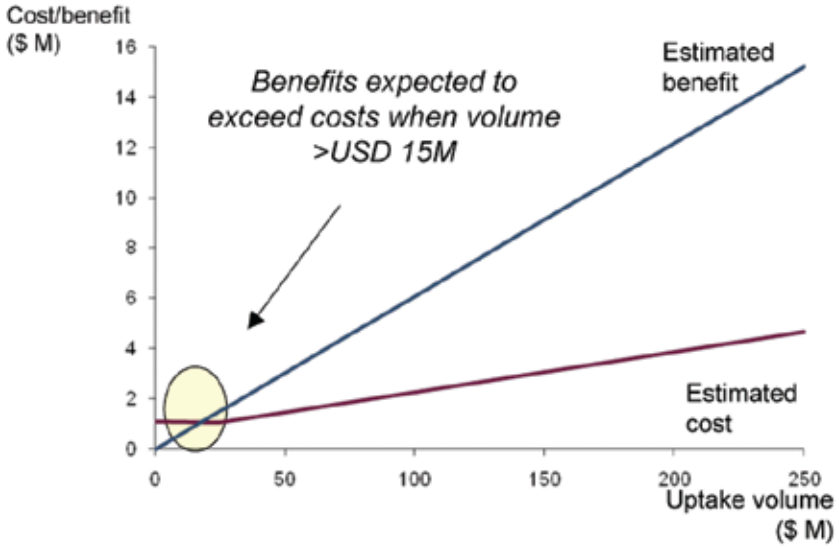
[16] There may be a role for a third party to provide technical assistance to customers to ensure that they can easily access the PG. The PG's managing organization will be responsible for any decision to enlist a third party. The PG should be streamlined and simple to use; marketing will be critical to increase awareness and participation.

4.6 Investment requirements

Like the MVG, PG costs will be driven by two types of variables: uptake and design. By making assumptions about both (found in the annex), we estimate that annual operating costs for the PG will be ~USD 1 to 2.5 million. The benefits are expected to exceed the costs once uptake exceeds ~USD 15 million. When projected over the first three years of operations, the PG is expected to cost USD 4 to 7 million while providing a financial benefit of USD 5 to 10 million.[17] The cost and benefit estimates using base-case assumptions are illustrated here, with assumptions included in the annex. Although both benefits and costs will be tied directly to volume, benefits are expected to accrue faster than costs. Initially, costs will exceed benefits due to start-up expenditures. Figure 13 charts estimated costs and benefits at given volumes using the base case set of assumptions around mechanism design. Figure 14 demonstrates how the projected costs and benefits can be rolled into a three-year envelope by making uptake assumptions.

Costs. For the PG, costs will consist of fixed and variable costs. Fixed costs can be broken down further into start-up and organizational costs, totaling ~USD 2.5 to 4.5 million over the first three years. Start-up costs include allocations for issuing

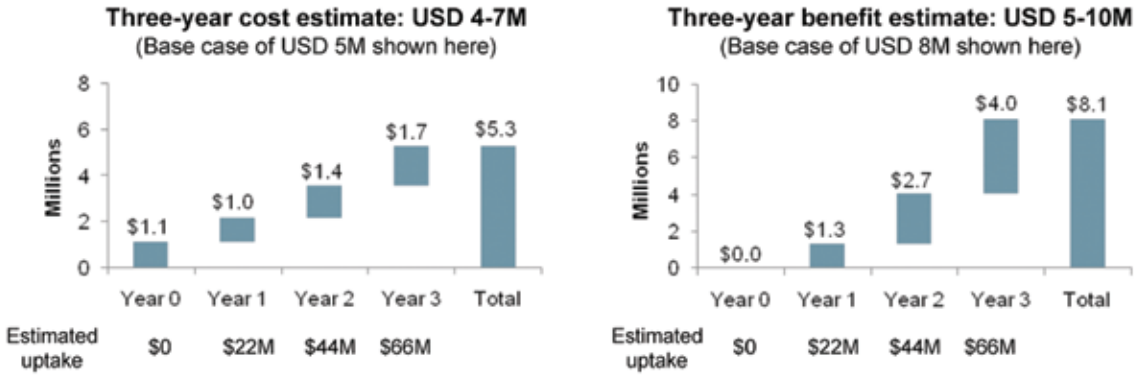
Figure 13: Estimated PG costs and benefits at given volumes



Note: Achieving uptake of more than USD 100M would likely require extending the PG to other areas of health commodities (i.e., USD 2.6B market). Similarly, this analysis assumes that benefits accrued in other areas of health commodities would follow the same assumptions used to estimate RH benefits; analysis assumes costs would increase linearly, and estimates do not reflect transaction costs that may exist in moving from RH into other areas of health commodities.
Source: McKinsey analysis (for benefits methodology) and Dalberg research and analysis.

[17] Cost estimates are exclusive of any associated country-level TA.

Figure 14: Estimated PG costs and benefits over three years



Note: Totals do not sum exactly due to rounding
Source: McKinsey analysis (for benefits methodology) and Dalberg research and analysis

the EOI, legal fees, hiring and recruiting, structure and implementation, and administration (~USD 0.5 million over three years). Organizational costs include two to three FTEs and marketing and outreach (~USD 0.5 to 1 million over three years). Variable operating costs include debt service and potential user fees. These will vary directly with the usage of the mechanism and are estimated to be ~USD 1.5 to 3.5 million over the first three years given the uptake described above. The PG will be a demand-driven mechanism, with costs and benefits both driven by usage. The estimated costs do not include technical assistance, which will likely be leveraged from, and integrated into, existing programs.[18]

Benefits. As with the MVG, the benefits of the PG can be thought of in terms of effectiveness and efficiency. The effectiveness benefits include less-volatile procurement processes, increased ability for long-term planning, and positive externalities associated with increased transparency. As the PG exposes areas where current practices excel or lag, there will be increased pressure to improve procurement coupled with better-aligned incentives for all parties. Again, these benefits are at least as important as the quantifiable efficiency benefits. The efficiency benefits can be categorized into two groups: fewer emergency shipments and reduced cost of capital. Savings resulting from reduced emergency shipments are estimated as follows. Currently, approximately 10% of shipments are considered "emergency." The 70% (of the 10%) that is attributed to the inability to begin procurement due to delays in financing will be eliminated through the PG. When an emergency shipment reverts to a standard shipment, freight and logistics costs are reduced from 15 – 30% to 7% resulting in USD 1 to 2 million in savings over three years.[19]

[18] The PG managing organization will be responsible for deciding whether or not technical assistance is required beyond customer outreach and marketing to enable customers to access the PG. The design is intended to be as streamlined and easy to use as possible. If technical assistance is deployed, it should leverage existing resources and should be integrated into existing initiatives.

[19] Benefits estimation methodology taken from "Reproductive Health Financial Mechanism Analysis," McKinsey, 2006.

The cost of capital savings, totaling USD 4 to 8 million, is likely to result from the difference between the rate that a sovereign developing-country government would pay to secure credit (estimated at 8.4%) and the effective rate that would be available through the PG (estimated between 2.5% and 5.5%).

Additional detail about PG costs and benefits assumptions can be found in the annex.

4.7 Risks and risk-mitigation strategies

Potential risks and potential mitigation strategies are described below in descending order of severity.

Table 2: PG Risk Assessment

Risk	Description	Mitigation
Impact does not meet expectations	The impact of implementing the PG may be less than estimated due to downstream supply-chain issues. Smoother financing flows may not translate into improved health outcomes if the internal procurement and distribution procedures are inadequate.	The PG organization should clearly communicate that it is designed to solve a specific problem, and downstream supply issues are not within its scope. The PG should nevertheless consider working with partners who can help address issues elsewhere in the supply chain that may limit impact.
Bypassing valid existing process	The PG could create a system that could bypass certain procedures created to ensure payment of pledges.	The PG can be used only once a pledge has been made. The likelihood that a given country will follow through on its pledge will be judged independently by the bank and accounted for in the interest rate.
Insufficient market size	Given the complexity of offering this product for the first time, the RH market alone may not be sufficiently large to make the product attractive to banks.	The mechanism should be designed to limit transaction costs. Furthermore, the PG for RH commodities should be launched with the expectation that it could quickly expand into other health procurement areas.

Low uptake	Fewer customers may choose to use the mechanism than originally estimated, changing the cost/benefit calculations and delivering less impact.	Include the customers in the design phase, ensuring that their concerns are taken seriously and are incorporated into the design and implementation plan. Additionally, more than half of the PG cost is directly related to the debt service and will therefore be lower with less usage.
Banks unwilling to offer product	Banks might not be interested in offering this product due to its non-traditional structure.	The product must be designed to be financially attractive to banks. If it is not, either the design must be altered (for example, by involving a guarantor) or other types of financial institutions more accustomed to non-traditional structures should be sought.
Political risk	The PG could be blocked for political reasons, for example, if it is perceived to create a new health vertical or be a "work around" instead of a true solution.	The RHSC should identify the major political arguments against the PG and its most likely critics and consult them to ensure that their concerns are heard and incorporated into the design, as appropriate.
Donor volatility	Donors could reduce commitments or fail to follow through on their pledges. The absence of good historical data makes predicting future volatility difficult.	To mitigate the risk of reduced pledges, the managing organization can pilot the PG with a core of long-term pledges and secure multiyear commitments (potentially in conjunction with the International Health Partnership). It is the responsibility of the bank to assess the creditworthiness of the donor.
Debt service cost	Poor risk assessments or a default soon after the product's launch could make the product too expensive. Limited historical data on pledges may result in less attractive economics.	This risk can be mitigated by the use of a guarantor with excellent credit paired with an ability to refuse participation to donors with poor credit ratings.
Execution risk	Poor mechanism execution could inhibit success	This risk can be reduced by allocating sufficient funding, time, and resources to implementation, assigning a single point of accountability and specific roles.

5. In-country Research Findings

5.1 Case study: Tanzania

Currently Tanzania procures approximately USD 7 million in RH products through three channels.[20] The largest channel by far is the Tanzanian government. By way of basket funding, the Ministry of Finance (MoF) funds 70% of the country's RH supplies, which are subsequently procured by the Medical Supplies Department (MSD). Additionally, USAID and UNFPA fill procurement gaps and prevent stock-outs by procuring 25% and 12% of RH supplies, respectively. As the core procurer of RH supplies, the government would be the primary customer for both the MVG and PG mechanisms.

There is a potential role for the PG within Tanzania's system of national purchasing of RH commodities. Currently, the MSD purchases products based on the annual budget set by the MoF and MoH during the Midterm Expenditure Framework process at the beginning of the year. However, despite the existence of an approved budget, the MoF frequently changes priorities and delays the transfer of funds, which in turn delays procurement. The MSD frequently establishes multiple three-month letters of credit with local banks to manage disbursement delays. The PG could supplant these letters of credit and additionally highlight to the MoF the cost of capital due to delayed disbursements. The PG could serve as a means of expediting the disbursement of funds from the MoF to the MoH to the MSD, thus enabling the MSD to have more control of its procurement schedule.

Similarly, the MSD would be a primary actor in uptake and utilization of the MVG in Tanzania. The MSD purchases RH products by following country procurement policies. The tendering process takes 45 days, and once the supplier is selected, funding is needed on hand to secure the terms of the contract and submit a purchase order. This process is repeated annually for most products; however, in 2008 the MSD is arranging two-year contracts with condom suppliers. It is expected that this will be a trend in the future for other products as well. Prices for RH commodities have decreased every year and thus are not seen as prohibitive; however, the greatest challenge for the purchasing of product is meeting country quality standards. By using international quality standards, the MVG could supersede local standards, thus expediting product approvals.

5.2 Case study: Ethiopia

Ethiopia procures approximately USD 22 million in RH supplies, USD 19 million of which is donor funded.[21] Ethiopia is the largest recipient of donor funding for the procurement of RH supplies. The dominant method of procurement is through UNFPA. USAID procures an additional 29%, and the International Planned Parenthood Federation, the Ethiopian government, and DKT International fill the remaining gaps. This distribution of

[20] UNFPA, "Donor support for contraceptives and condoms for STI/HIV prevention," 2005; page 15.

[21] UNFPA, "Donor support for contraceptives and condoms for STI/HIV prevention." 2005; page 15.

procurement signals that UNFPA Ethiopia could be a core customer for both the MVG and PG mechanisms.

Although the Ethiopian government does not currently procure for itself, a Pharmaceutical Fund and Supply Agency (PFSA) has been created legally to become the procurement and distribution arm for the Ministry of Health. The PFSA will be responsible for all financing, procurement, and distribution of health commodities, including RH supplies, throughout Ethiopia. As a part of the design, the MoH intends to establish a revolving drug fund to help smooth the volatility of financing. The creation of the PFSA represents a major shift from current practices with the "Provision of Basic Services System," in which the majority of procurement financing goes through the World Bank and UNFPA. The timing for this transition is unknown, but 12 to 24 months has been proposed.

The expectation is that, as the core procurer of RH supplies for Ethiopia shifts from UNFPA to PFSA, the primary customer in Ethiopia for the MVG and PG will also shift. In the current process, UNFPA would participate in the MVG to ensure low pricing, quality product, and a transparent selection of suppliers, all of which have been highlighted as concerns in Ethiopia. Additionally, UNFPA would participate in the PG to strengthen the communication channel around RH budgeting and to expedite the receipt of World Bank funds, which are often delayed for up to four months by bureaucratic processes. The executives of PFSA have expressed interest in participating in both mechanisms once the PFSA is operational.

Because Ethiopia's procurement process is in flux, a third possible customer becomes apparent. DKT International has expanded its procurement of RH supplies from filling gaps in the social-marketing sector to contracting with regional governments, and it has shown some interest in servicing federal agencies as well. If DKT or another NGO followed this trend, it would likely benefit from the global framework contracts of the MVG as well as from additional bridge funding provided through the PG. Though the core procurer for Ethiopia is changing, each actor has expressed a need for and an interest in participating in the MVG and the PG mechanisms.

5.3 Case study: Ghana

Ghana procures USD 6 million in RH supplies annually.[22] Demand planning and procurement is overseen by the Interagency Coordinating Committee for Contraceptive Commodities, which acts as the primary focal point for planning of both the MVG and PG in Ghana. USAID, UNFPA, and, to a lesser extent, the Ministry of Health are the primary contributors to the RH supplies budget. The portion of contraceptive procurement that occurs through the MoH budget is slated to increase over the years. USAID and UNFPA procure the commodities directly; whereas, the contraceptive supplies from the MoH budget are procured through the UNFPA. Once in-country, the supplies are distributed through two channels: Ghana Health Ser-

[22] McKinsey and Company, "PG/MVG Customer Landscape" Excel file. This number includes 2007 IPPF, UNFPA, USAID, and third-party UNFPA funding.

vices public clinics and the Ghana Social Marketing Foundation's programs. Oral contraceptives are the predominant form of contraceptives used in the country.

On-the-ground interviews have indicated potential demand for the MVG and PG, with some reservations. The biggest potential impact of the MVG is that the demand for accurate forecasting required of participants could lead to improved planning for contraceptive purchasing. The direct benefits would accrue to small-volume buyers such as the Planned Parenthood Association of Ghana (PPAG) and Marie Stopes, which procure their supplies directly. Ghana mostly procures a high volume of low-cost RH commodities. For these purchases, the MVG would be less useful. Nevertheless, benefits may be gained on lower-volume commodities, which make up less of the overall portfolio.

In Ghana, there seems to be a role for the PG, although it is somewhat different from that proposed in other countries. In Ghana, donor funds are channeled through the Multi Donor Budget Support (MDBS) mechanism or the sector-wide approach (SWAp) mechanism, and the MoH can access money that has been budgeted to it during the budget planning cycle. Procurers in Ghana can initiate the process without having funds in hand as long as a budget line item for procurement exists. However, committed delivery plans and schedules from the UNFPA cannot be obtained until the money is transferred to their accounts. This system can lead to uncertainties in the planning process and in some cases delays in procurement. The PG mechanism may help resolve some of these issues. The need for additional funds was also expressed. This area is beyond the scope of the PG but is addressed by the RHSC Resource Mobilization and Awareness Working Group.

6. Preliminary Implementation Plan

Implementation of the MVG and the PG will require the close involvement of the managing organizations. The preliminary implementation plan included here defines the high-level actions required to move forward with start up and launch. Still, it is essential that the managing organizations begin to own these mechanisms and customize the specifications of implementation to match their organizational capabilities and constraints. Customization and ownership are fundamental to the success of the mechanisms and to their long-term sustainability.

During the next phase of work, the MVG and PG managing organizations will need to build the infrastructure, processes, and relationships to launch these new business lines. In the near to medium term, requirements for implementation are as follows:

For the Pledge Guarantee only:

1. **Confirm managing organization.** A key next step is confirmation of the PG managing organization. This step will require measuring the potential managing organization against defined criteria for success, identifying areas that need to be strengthened, and confirming feasibility/willingness to proceed.
2. **Build organizational capacity within the PG's managing organization.** Once the managing organization is selected, there will be a need to build organizational capacity, assess existing capabilities and gaps, fill any required resource needs, and determine organizational process flows, reporting, and governance relationships.
3. **Conduct an EOI to identify and then establish relationships with commercial and/or development bank(s) to provide financing for the PG mechanism.** Through an EOI process, a range of potential financing providers and structures will be considered. This process will require agreement on terms and criteria, identification of potential banking partners, and process management to administer the EOI among the banks.
4. **Identify and establish relationship with a third-party guarantor(s).** The PG managing organization will need to determine the feasibility of a third-party guarantor, and, if possible, establish a relationship with the guarantor for its involvement in PG transactions.
5. **Further define transaction flow of the PG.** Building on the foundation set forth here, the PG transaction flow must be further defined so that process requirements can be used to inform organizational capacity, the EOI, and customer outreach. This work should also define how the PG will function; its potential impact in situations with basket funds/budget support; the feasibility of addressing internal country fund delay transfers; and the potential integration/ connectivity with other health programs or financing mechanisms (e.g., IHP programs).

6. **Prepare for launch and launch PG.** Prior to the launch, all required operations must be in place and performance tested. The mechanism will be refined based on learnings. A launch will take place across customer markets once all operations are fully functioning and deemed ready.
7. **Assess potential for expansion to other health commodities; if attractive, plan for expansion.** Using lessons from implementation assess the potential to move into other areas of health commodities, and if this remains a feasible and attractive opportunity, plan for expansion.

For Minimum Volume Guarantee only:

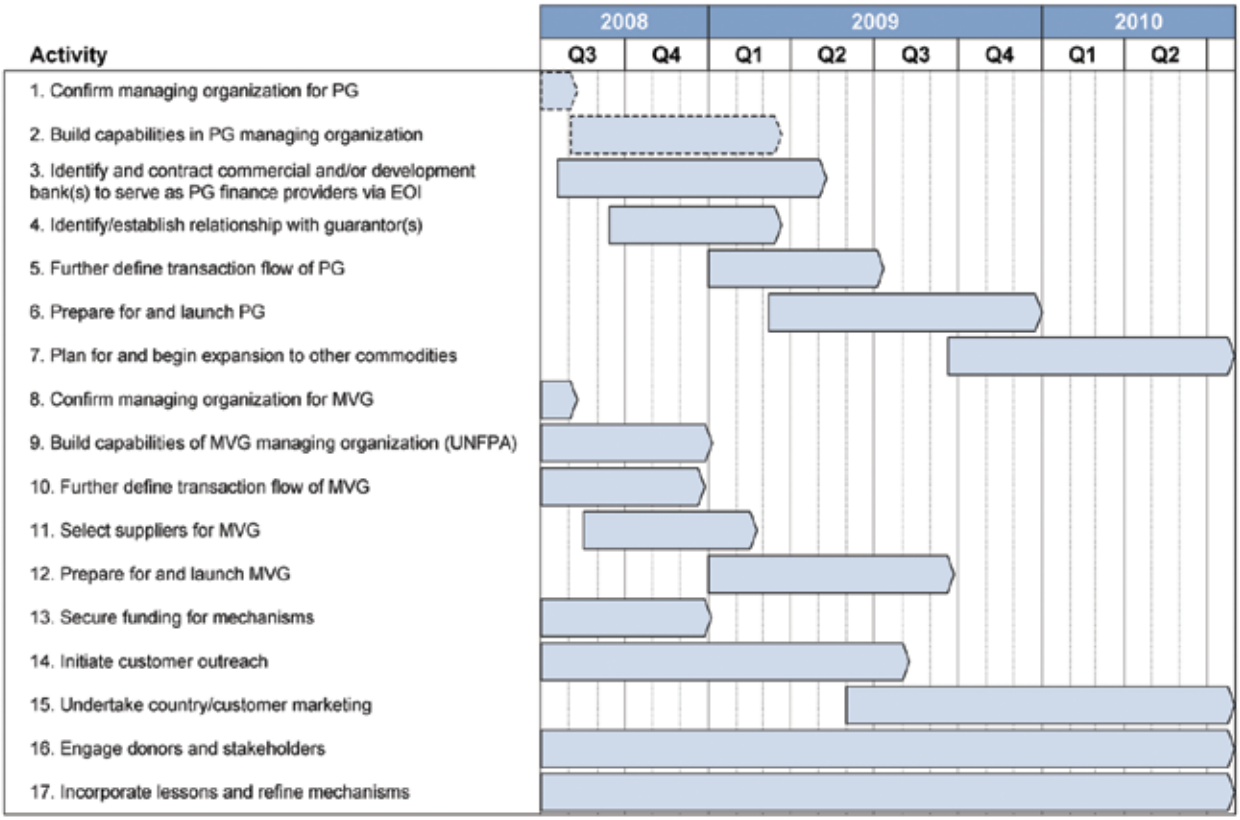
8. **Confirm managing organization.** A key step is confirmation of UNFPA as the MVG managing organization. This step will require measuring UNFPA against defined criteria for success, identifying areas that need to be strengthened, and confirming feasibility/willingness to proceed.
9. **Build capabilities of the MVG managing organization (UNFPA).** Assess existing capabilities and gaps, and add incremental resources as necessary to fill gaps. Train and prepare organizationally for the new business line. Determine process flows, governance structure, and reporting relationships. Included here is the development of plans for a Web-enabled platform on which customers could access the MVG.
10. **Further define the transaction flow of the MVG.** Build on the foundation put forth here to determine the details of optimal MVG transaction flow, in line with customer needs and barriers. Define quality and standards requirements for the MVG, in line with country-level needs and requirements for maximum impact.
11. **Select manufacturers for the MVG.** Put forth an RFP to select manufacturers to participate in the MVG, in line with market conditions, implications, and opportunities.
12. **Prepare for and launch the MVG.** Test all operations and systems to ensure that they are ready for launch. Refine the mechanism based on any initial lessons pre-launch. Launch once all systems are fully functioning and prepared.

For both the MVG and PG:

13. **Secure funding for mechanisms within managing organizations.** Work with the donor community to ensure funding for mechanisms. Articulate performance metrics that demonstrate customer demand and benefits for longer-term funding.[23]
14. **Initiate and undertake customer outreach.** Begin outreach to customers across disparate geographies and circumstances to assess the mechanism's feasibility and potential impact, as well as customer demand.

[23] Discussions are currently under way with donors for support of start-up costs. Further discussions are required to finalize funding for ongoing operations.

Figure 15: High-level implementation activities



Note: Timelines are directional only and subject to change based on contingencies (e.g., confirmation of managing organization).

15. **Create marketing strategy and begin marketing products.** Building on customer outreach, develop a marketing and communication strategy, and begin marketing products to customers.
16. **Engage key donors and supporters in RH the community.** It is critical to engage key donors and supporters across the RH community, to galvanize funding but also to ensure alignment and connectivity with other initiatives.
17. **Incorporate lessons and refine mechanism.** Continually improve mechanisms and approaches based on experience.

For both the PG and the MVG, implementation planning and finalization of funding should be completed by the end of 2008, so that the mechanisms are prepared for launch by the end of the second and third quarter of 2009 for the MVG and PG, respectively. Figure 15 presents a high-level schedule of activities. Timelines are directional for both mechanisms. Further, the PG launch timing will be highly dependent on the timing of the selection of a managing organization.

For both mechanisms, long-term successful implementation will require clear demand from customers, support by donors, and promotion by a variety of RH community stakeholders. In the short term, the critical requirements are sustained advocacy and engagement by members of the RH community to ensure that it receives the financial and political commitment it requires, and the empowerment of the managing organizations to take forward these business lines.

7. Conclusion

The MVG and PG mechanisms will address some of the most serious problems threatening access to reproductive health commodities for people worldwide. The MVG is designed to coordinate collective action to achieve greater ends than any single actor could achieve independently. The mechanism will aggregate volume and forecasts from multiple buyers and guarantee volume. Improved delivery terms and pricing are expected in exchange. These features will result in downstream benefits such as fewer stock-outs and emergency shipments, more standardized procurement schedules, and improved internal planning. From a purely financial perspective, the MVG will offer a 150 to 250% return on the USD 2 to 4 million three-year funding envelope. Given the requirements of the design and the funders, UNFPA appears to be the most attractive managing organization to house the three to five FTEs needed to operate the MVG.

The PG will provide short- and medium-term credit to mitigate the effect of donor volatility and the frequent lag from pledge to financing. Countries that currently receive donor funding for RH supplies, NGOs purchasing RH supplies, and UNFPA will all be eligible to participate. Once a pledge has been made, the mechanism will advance money to the recipient in the form of a short-term loan to be paid by the donor when finances are available. The increased predictability in funding resulting from the PG will allow buyers to reduce their capital costs and smooth their procurement operations, reducing stock-outs and costs. From a purely financial perspective, the PG will require a USD 4 to 7 million initial investment. However, this investment represents less risk than might be expected given that approximately 50% of PG fees will be tied directly to volume of usage. The PG will be operated by a small administrative group managed by a third-party organization. Capital and financial portions of the PG will be provided by a commercial or development bank.

The opportunity for the reproductive health community to lead is now. Commitment to implementation, in terms of both effort and money, will be needed to ensure a successful launch that can become the model for similar programs in other health sectors and increase the impact of these promising mechanisms.

ANNEX

References

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UK Department for International Development, "RH Commodity Security: Adequacy of the International Architecture for Finance and Supply," 2005.

UNFPA, "Donor support for contraceptives and condoms for STI/HIV prevention," 2005; page 15.

Interview list

During the course of the project, the Dalberg team had conversations with the following individuals.

	Name	Organization
Customers	Missanga Muja	Medical Supplies Department, Tanzania
	J.M. Kachenji	Ministry of Finance, Tanzania
	Christopher Msemo	Medical Supplies Department, Tanzania
	Enos Wafula China	Ministry of Finance, Kenya
	Charles Llewellyn	USAID and Development Partners Group, Tanzania
	Susan Duberstein	USAID DELIVER, Tanzania
	Cathleen Magege	USAID DELIVER, Tanzania
	Jan van den Hombergh	Pharmacess, Tanzania
	Patricia Chale	Population Services International, Tanzania

Customers	Romunus Mtung'e	Population Services International, Tanzania
	Ester Muia	UNFPA, Tanzania
	Nicoa Jones	UNFPA, Tanzania
	Kidane Gebrekidan	UNFPA, Ethiopia
	Jeff Sandersen	JSI/USAID DELIVER, Ethiopia
	Bernard Fabre	JSI/USAID DELIVER, Ethiopia
	Gebreselassie Okubagzhi	World Bank, Ethiopia
	Hadas Wolde Giorgis	World Bank
	Peter Huffman	Clinton Foundation
	Monique Rakotomalala	UNFPA, Ethiopia
	Michael Tekie	UNFPA, Ethiopia
	Andrew Pillar	DKT, Ethiopia
	Wondwossen Ayele Haile	Ministry of Health, PFSA, Ethiopia
	Tomaru Demeke	Ministry of Health, PFSA, Ethiopia
	Medhin Zedwu Tsehaui	Ministry of Health
	Tsegay Legesse	HIV/AIDS Prevention and Control Office (HAPCO), Ministry of Health
	Raja Rao	JSI/DELIVER
	Paul Dowling	JSI/DELIVER
	Carolyn Hart	JSI
	Bonface Fundafunda	Zambia Ministry of Health
	Kanika Bahl	Clinton Foundation
	Dr. Tsegay Legasse	Ethiopia Ministry of Health
	Marc Reveillon	HERA
	Charles Kandie	KEMSA
Donors	Wolfgang Bichman	KfW
	Anne Nolan	DFID
	Nel Druce	DFID
	Marion von Shaik	Netherlands
	Susan Rich	Bill & Melinda Gates Foundation
	Jagdish Upadhyay	UNFPA
	Sadia Chowdhury	World Bank

Public finance mechanisms and organizations	Managing Director	Investment Bank
	Senior Associate	Citigroup Public Finance
	Katey Downs	EMP Global
	Blair Sachs	Gates Foundation
	Sophie Lopez	Global Fund
	Maureen Lewis	World Bank
	Amie Batson	World Bank
	Wolfgang Abel	KfW
	Managing Director	Global Commercial Lender
	Sandra Rolet	Consultant to KfW
	David Smith	UNFPA
Counterpart group and UNFPA	Alan Bornbusch	USAID
	John Skibiak	PATH
	Sangeeta Raja	World Bank
	Antti Kaartinen	UNFPA
	Mimi Whitehouse	RHI
	Jane Feinberg	RHI

Resource/FTE Estimates – Minimum Volume Guarantee

The estimated FTE/resource requirements for the MVG as a new business line within UNFPA are detailed here.

Responsibility	Skills required	# FTE
1. Manage financing of MVG product- coordinate with donors and potential credit providers	Donor relations, financial sector	0.9
2. Negotiate framework agreements and maintain supplier relationships	Procurement negotiations	0.6
3. Validate forecasting estimates	Procurement forecasting	0.5
4. Service clients, recruit new users and assist with program entry	Marketing, outreach	0.5
5. Coordinate delivery schedules with buyer demand	Procurement, management	0.3
6. Translate UNFPA board decisions to MVG	Communications	0.1
7. Update RHSC on relevant issues	Communications	0.1
Total		**3.0**

Note: The 3.0 FTEs suggested here are initial estimates only and require further discussion and analysis. Further, the needs and allocations are expected to shift as MVG product volume grows over time.

The current UNFPA board of directors would accept ultimate responsibility for the operations and operational finances of the MVG.

Responsibility	Skills required
1. Provide strategic guidance to program manager	Strategic thinking, leadership experience
2. Establish agreed-upon risk preferences for order volumes and framework agreements	Procurement and forecasting understanding; ability to engage key buyers and manufacturers
3. Be responsive to buyers and their needs	Client service, political sensitivity
4. Ensure that the activities of the group support UNFPA's mission and legal/tax status	Basic to moderate legal understanding (and/or consultation with UNFPA legal counsel/accountant)

Resource/FTE Estimates – Pledge Guarantee

The resource/FTE requirements for the Pledge Guarantee are detailed here.

Responsibility	Skills required	# FTE
Manage process to select financing providers and review/add financing providers over time	Financial sector	0.5
Monitor portfolio of commitments, analyze processes and exposure to ensure maximum impact	Financial analysis	0.5
Recruit new users and assist with program entry1	Marketing, outreach	0.5
Translate Board strategy and donor risk preferences to financing provider	Communications, management	0.4
Respond to donor requests and questions	Communications, client service	0.2
Serve as single point of contact for financing provider	Communications, client service	0.2
Update RHSC on relevant issues	Communications	0.1
Total		2.4

The 2.4 FTEs suggested here are initial estimates only and require further discussion and analysis. For example, the managing organization could partner with another organization to conduct the marketing and outreach function. Additionally, needs and allocations may shift as the organization moves from start up to steady-state operations.

The board of directors of the managing organization would accept ultimate responsibility for the operations and operational finances of the PG (excluding debt service and loan provision, administered by the financing provider). Their responsibilities would include:

Responsibility	Skills required
Provide strategic guidance to program manager	Strategic thinking, leadership experience
Establish agreed-upon risk preferences across a group of donors and/or guarantors	Moderate financial management understanding; ability to engage key stakeholders
Be responsive to donors and their requests	Client service, political sensitivity
Ensure that the activities of the group support the managing organization's mission and legal/tax status	Basic to moderate legal understanding (and/or consultation with the managing organization's legal counsel/accountant)

Cost/benefit assumptions

Assumptions for the MVG are included here:

		Year 0	Year 1	Year 3	Description
Users	Customers	USD 257 M Procurement agents + all public funding			Upper band of uptake based on estimated market size.
	Risk bound uptake	USD 0 M	USD 27 M	USD 45 M	Estimate of the percentage of total potential volume that will actually be committed.
	Risk free uptake	USD 0 M	USD 27 M	USD 45 M	Estimate of additional volume that may use mechanism, but with no commitment.
Costs	User fee (revenue)	Pessimistic: 0.5% Base: 1.0% Optimistic: 2.0%			Potential user fee charged on "additional volume" when using mechanism without committing. Necessary to encourage buyers to participate with risk.
	Start-up costs	USD 1 M	USD 0	USD 0	Legal, recruiting, and systems costs.
	Ongoing costs	USD 700k (3FTE + systems/marketing)	USD 970k (5FTE + systems/marketing)	USD 970k (5FTE + systems/marketing)	Incremental FTEs required plus systems and marketing costs.
Benefits	Subscale	Assume 20% of all volume is subscale Pessimistic: 6% potential discount Base: 8.5% potential discount Optimistic:11% potential discount			McKinsey estimate of potential pricing benefits resulting from MVG.
	Suboptimal	Assume 60% of all volume is suboptimal Pessimistic: 0% potential discount Base: 2.5% potential discount Optimistic: 5% potential discount			McKinsey estimate of potential pricing benefits resulting from MVG.

Assumptions for the PG are included here:

		Year 0	Year 1	Year 3	Description
Users	Customers	USD 277 M All RH donor + recipient government-funded procurement			Upper band of uptake based on estimated market size.
	Uptake	USD 0	USD 22 M (8%)	USD 66 M (24%)	Estimate of likely uptake.
Costs	Interest rate	Pessimistic: 5.50% (Prime rate + 50 basis points) Base: 3.37% (LIBOR+50 basis pts) Optimistic: 2.55% (US 3-month T Bill)			Potential interest rate offered by bank. Likely to be based on donor and guarantor risk profile.[1]
	User fee	Pessimistic: 1.0% Base: 0.75% Optimistic: 0.5%			Potential user fee assessed by bank. May be used to recoup some transaction costs.
	Payback duration	3 months			Input into interest payment. For a given interest rate, longer loans will cost more to service.
	Start-up costs	USD 450 k	USD 0 k	USD 0 k	EOI, legal, and recruiting costs.
	Ongoing costs	Pessimistic: USD 1 M Base: USD 700 k Optimistic: USD 500 k			Incremental FTEs required plus marketing costs.
Benefits	Cost of capital	Coupon rate on sovereign bonds: 8.38%			Optimistic/base/pessimistic vary based on difference from mechanism interest rate. Calculated from Kenya's T-bill rate.[1]
	Emergency shipments	Represent 10% of total, 70% eliminated through PG Pessimistic: 9% reduction in cost (air->sea) Base:16% reduction in cost (air->sea) Optimistic: 24% reduction in cost (air->sea)			McKinsey estimates of potential savings from reducing emergency shipments.