

Reproductive Health Financial Mechanism Analysis

REPRODUCTIVE HEALTH SUPPLIES COALITION:
SYSTEMS STRENGTHENING WORKING GROUP

Business Plan
July 2006

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1. EXECUTIVE SUMMARY

This business plan proposes the creation of a novel financial mechanism to improve the efficiency of the financing and procurement architecture for reproductive health (RH) commodities at the global and country levels. The financial mechanism is one element of a more comprehensive effort by the Reproductive Health Supplies Coalition to improve access to RH commodities (see Context).

The proposed mechanism is designed to solve a) donor finance variability problems and b) issues with sub-scale procurement and lack of advance commitments in reproductive health supply. There are three key issues with donor funding:

- ¶ First, the timing of donor funds across years is often uncertain with delays common.
- ¶ Second, the magnitude of donor funds is uncertain, particularly over successive years, so actual funds received may be smaller or larger than anticipated.
- ¶ Third, donor funding for RH commodities often comes late within a fiscal year and must be spent rapidly.

These problems create inefficiencies in the form of higher costs for emergency shipments, higher costs due to subscale orders and inability to commit long term to manufacturers, longer supply lead times sometimes resulting in stock-outs, and a cascading effect on the downstream supply chain: exacerbating issues related to forecasting, inventory management in-country, distribution, and planning.

Procurement scale/ commitment problems in public sector purchases arise from the prevalence of fragmented, small orders with lack of advance commitment to manufacturers. This is partly a result of variability in donor funding (as mentioned above), but also due to lack of coordinated buying and an inability on the part of procurers to make advance commitments and take volume risks (regardless of funding source).

The proposed mechanism would have two major service lines that address the problems.

- ¶ 1. Pledge guarantee. The mechanism would advance money to a party based on projected financing flow from donor pledges to smooth donor funding volatility

- ¶ 2. Minimum volume guarantee. The mechanism would also provide minimum volume guarantees to manufacturers to reduce total systems costs through volume discounts, advance purchase discounts, and avoiding costly rush shipments and stock outs.

The mechanism could be governed by a small Board to oversee the finance-related decisions and the organization, if it is housed outside an existing institution. Regardless of the host model, there will be a small operational team consisting of five to seven individuals initially. Some of these individuals should be fully dedicated staff and others will be part-time, depending on the model.

The capital cost of the Pledge Guarantee is estimated at \$26 million up front. There is an assumed annual default rate of approximately \$2 million, and operating costs of about \$1 million. This generates annual cash savings of \$2.2 to 5.4 million. More importantly, the Pledge Guarantee will avoid some stockouts at the national and regional level that result in lack of access. And smoothing financial inflows for countries and agencies can provide indirect benefits related to improved planning, distribution, and inventory management enabling scaling-up of programs. It is appropriate to compare the cash savings amount to the operating costs, as default costs will be offset by commodities reaching countries. On that basis, the return on investment for the Pledge Guarantee is 2 to 5 fold.

The capital cost of the Minimum Volume Guarantee is \$2.5 to 5 million up front. There is an assumed wastage rate of \$0.5 to 1.5 million, representing 20 to 30% of the 5-10% of product that is purchased and not immediately used (approximately 1 month inventory). The administration costs equates to approximately \$1 million. This generates annual cash savings of \$2.6 to 8.2 million depending upon the number of users and product volume. The minimum volume guarantee can help avoid some stock outs through reducing supply lead times and could be structured to help improve downstream supply systems. It is appropriate to compare the cash savings amount to the waste and operating costs. On that basis, the return on investment for the Minimum Volume Guarantee is likely to be breakeven to 3 fold.

There are moderate synergies to running both service lines in parallel, as not all staff would be duplicated. The financial mechanisms also could be structured in a way to integrate with existing software programs and databases in development. The full set of financing and procurement challenges would not be solved by these financing mechanisms. Additional efforts are still required to help strengthen country supply systems and mobilize sufficient resources to procure commodities. However, the mechanisms represent some first, initial steps to help rationalize the RH financing and procurement architecture and set the stage for maximizing the benefits from future investments.

2. CONTEXT AND OBJECTIVES

The vision of the Reproductive Health Supplies Coalition (RHSC) is *to protect people's health and improve livelihoods by ensuring sustained access to a choice of quality RH supplies*. To contribute toward fulfilling this vision and its mission that every person is able to obtain and use RH supplies, the Coalition commits itself to achieving a sustained supply of affordable, quality reproductive health supplies in low- and middle-income countries by focusing on five goals:

- Improve access to and choice of RH supplies for low- and moderate-income consumers through public, private, and commercial sectors.
- Increase political commitment and financial resources and their more effective use to serve the RH needs of poor and vulnerable populations.
- Strengthen global, regional, and country systems for reliable and predictable supply of quality RH supplies.
- Improve coordination and use of global, regional, and country-level information, knowledge, best practices, and lessons learned.
- Formulate other strategic responses as needed to address the future demand for RH supplies.

The implementation and technical arms of the RHSC are represented by working groups, which build on the mandates, interests, resources, and comparative strengths of members, and represent core partnership activities. One of these bodies is the Systems Strengthening Working Group (SSWG), whose objectives are the following:

1. Improve joint efforts for timely access to and use of standardized information to align financing and reproductive health product flows to meet country requirements.
2. Develop solutions to drive increased reliability, predictability, and efficiency of public financing for RH supply needs, especially for poor and vulnerable populations.
3. Identify and support supply chain improvements for effective and efficient delivery of quality assured RH supplies.

In the November 2005 meeting of the RHSC, the SSWG reflected upon growing research on global health financing and procurement,¹ particularly from a recent

¹ Extensive research has been conducted on the aid architecture overall (e.g. "Mapping and Assessing the Effectiveness of Aid Architecture," DFID Health Resource Centre, August 2005; Papers produced by OECD/DAC Working Party on Aid Effectiveness and Donor Practices) that provide broad findings. In addition, DFID and the Bill & Melinda Gates Foundation commissioned analyses to examine the RH commodity aid architecture specifically ("RH Commodity Security: Adequacy of the International Architecture for Finance and Supply," DFID Health Resource

DFID report and an analysis by Mercer Management Consulting commissioned by the Bill & Melinda Gates Foundation, which both noted that improvements can be made to the global financing and procurement architecture for reproductive health commodities. Specifically, these reports highlighted inefficiencies (costly emergency shipments, higher product prices) and country challenges (procurement decisions, impediment for long-term planning and scaling-up programs) caused by volatile, unpredictable, and unreliable funding from donors. In response, the SSWG identified a work plan to explore the possibility of financing solutions to address the apparent financial constraints and inefficiencies in the RH commodity environment.

Several partners from the working group – including UNFPA, DFID, KfW, and the Bill & Melinda Gates Foundation (henceforth referred to as the “Advisory Group”)² – issued their interest and commitment towards this research, and collectively developed the terms of reference. The research objective was stated as: *to develop technical design options of financing strategies that will alleviate reproductive health commodity supply constraints in developing countries*, examining two areas: (1) providing mechanism(s) to mobilize additional resources for reproductive health commodities; (2) improving efficiencies in the reproductive health commodity financing/procurement system – the latter of which is the subject of this paper. The first analytical work stream has also been initiated with financial support from KfW, and coordination and information exchange will be managed to explore opportunities for greater synergy.

Members of the Advisory Group recognized from the beginning that a broad research agenda would be required in order to pinpoint all opportunities for systemic step changes in the financial architecture for RH commodities. This study represents a segment of the research agenda as first identified by members of the Systems Strengthening Working Group, focused on examining optimal use of dollars flowing from the global arena. The findings will ideally drive improvements in one part of the overall system that should be complemented with other activities, particularly at the country level.

McKinsey & Company was contracted, with the financial support of the Bill & Melinda Gates Foundation, to conduct and manage the analytical exercise with the oversight and input of the Advisory Group. McKinsey performed this work based on a substantial fact base from prior studies by the RHSC and its members, consultation with an Advisory Group, and interviews with various private and

Centre; “Contraceptive Availability Study: Methodology and Key Findings – Report to the Reproductive Health Supplies Coalition, Mercer Management Consulting, September 2005).

² McKinsey would like to thank the following individuals Wolfgang Bichmann (KfW), Jagdish Upadhyay (UNFPA), Georgia Taylor (DFID), Kees Kostermans (World Bank), Jacqui Darroch (Gates), and Blair Sachs (Gates)

public actors in the field³. The ultimate goal for the work was to develop 2-4 technical financial design options with the main focus of alleviating inefficiencies in the financing/procurement system for reproductive health commodities, not raising additional monies or directly addressing other supply chain issues such as poor planning and weak in country distribution.

McKinsey's structured the work in three phases.

- ¶ Phase I: Diagnose the existing supply system to identify specific financial/procurement activities where opportunity exists for improved efficiency
- ¶ Phase II: Review models from health and other fields to develop a prioritized solution set of financing strategies for mobilizing additional resources for reproductive health commodities
- ¶ Phase III: Develop 2-4 technical design options for financing solutions for alleviating inefficiencies in financing/procurement system

The main end products of the study were to:

- 1) Analyze the magnitude of finance-related inefficiencies by country and product type (including a detailed analysis of funding variability) and cross-check findings with targeted interviews,
- 2) Assess potential benefits of addressing inefficiencies with a financing mechanism solution,
- 3) Propose alternative models for financial mechanisms,
- 4) For prioritized model(s), create technical designs for the mechanism(s), including services offered, management, and financing required,
- 5) Discuss prioritized model(s) with the Advisory Group and members of the reproductive health community to refine the model, and
- 6) Draft a high level implementation plan.

3. LANDSCAPE AND CURRENT RH COMMODITY TRENDS

An estimated 466 million women in developing countries outside China are sexually active and fertile and do not want a child soon or at all – thus placing them at risk for an unintended pregnancy.

³ McKinsey would like to thank the 40+ people we interviewed to supplement the fact base and address new issues that emerged during design of the facility. Appendix B includes the list of interviewees.

Unintended pregnancies have a significant negative impact on women. First, they are a significant cause of mortality for women – approximately 20% of maternal deaths can be traced to an unintended pregnancy (36,000 women per year). Recent studies have demonstrated that maternal mortality is highest in countries where women are least likely to have access to modern contraceptive methods.⁴ Second, unintended pregnancies lead to short- and long-term health problems – for every maternal death an estimated 30 additional women suffer pregnancy related health problems. Third, there is an immense social and economic cost due to women being unable to regulate their own fertility in terms of lost productivity and long-term negative health effects. Poorly spaced births create financial pressure on households that are already stretched in terms of resources – the addition of a new child often means less food and resources for all children.

Securing sustained and increased use of modern contraceptives is key to preventing many of these unintended pregnancies given that:

- 35% of women at risk for unintended pregnancy⁵ (161 million) require ongoing supply to continue their method (IUDs, contraceptive implants, injectable and oral contraceptives, and condoms),
- 26% (121 million) rely on contraceptive sterilization, which requires one-time RH supplies,
- 13% (61 million) use traditional methods that usually have low effectiveness and increases a risk for unintended pregnancy, and
- 26% (123 million) use no method and thus are at very high risk for an unintended pregnancy

As the figure below indicates, overall prevalence of contraception remains quite variable between regions. The overall prevalence of contraception among women at risk for unintended pregnancy is 63% in Asia and 27% in Africa versus 76% in North America and 67% in Europe.⁶ With limited access to contraception in Sub-Saharan and Asian regions, there are an estimated 80 million unintended pregnancies (or 4 out of every 10 pregnancies) per year in developing countries.⁷

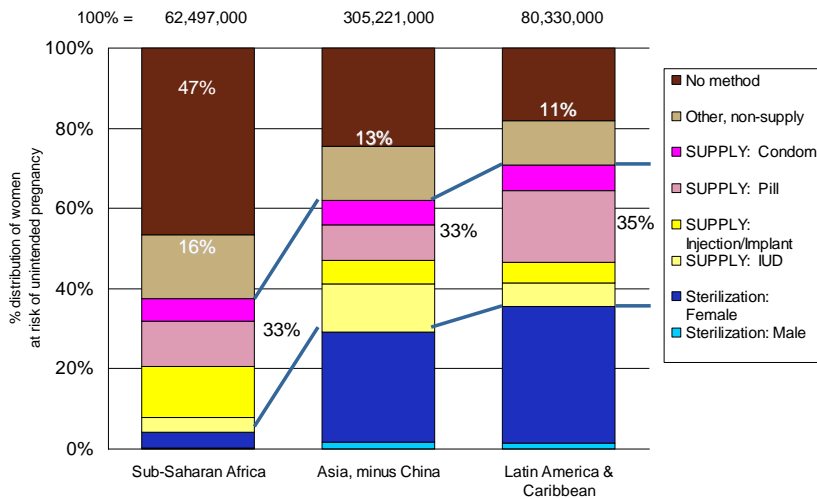
⁴ “Promises to Keep,” UNFPA, 1997.

⁵ Sexually active, do not want a child in next 2 years or at all and physically able to become pregnant if used no contraception

⁶ The prevalence of contraception in Asia increased significantly by inclusion of China, Japan, and Korea.

⁷ Vlassoff et al., *Assessing Costs and Benefits of Sexual and Reproductive Health Interventions*, Guttmacher Institute, 2004.

Figure 16. Continued and increased pregnancy prevention requires adequate and reliable contraceptive availability.

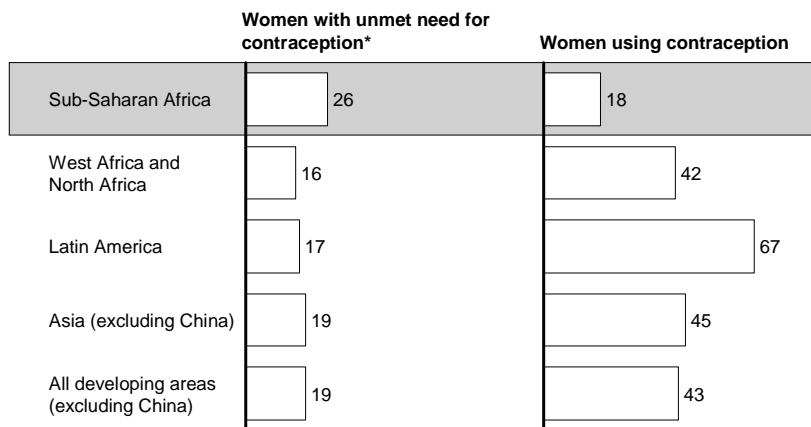


*Excludes China
Source: J.E. Darroch, tabulations for Singh et al., *Adding It Up*, Guttmacher Institute, 2004.

Effective delivery and uptake for contraceptives is particularly dire in Sub-Saharan Africa. Among married women of child-bearing age in Sub-Saharan Africa, almost twenty six percent have an unmet need for contraception and only eighteen percent are using contraception, according to Population Action International (*Exhibit 3.2*).

Exhibit 3.2

SATISFYING THE NEED FOR CONTRACEPTIVES IS ESPECIALLY CRITICAL IN SUB-SAHARAN AFRICA



* Unmet need refers to married women of reproductive age who do not want another birth within the next two years, or ever, but are not using a method of contraception
Source: Population Action International; *Africa's Population Challenge*, 1998

More work is clearly needed to increase contraceptive use, including moving the 123 million women at risk using no method and the 61 million using a traditional method to use of modern methods. While contraceptive supply problems are not the sole reasons behind unmet need, adequate and reliable commodities are a necessary component without which other interventions cannot be effective, especially in areas, such as Sub-Saharan Africa, that rely heavily on non-sterilization methods. In Africa, 80% of married women between 15 and 49 using contraception rely on pills, IUDs, injectables, and condoms, compared to 50% in Latin America and Asia. (*Exhibit 3.4*).

Financial resources for reproductive health commodities, however, lag far behind what is needed. UNFPA estimates that the funding shortfall required to provide sufficient reproductive health commodities of all varieties (i.e., beyond the scope of this effort) to those who need them is in excess of US\$150 million per year.

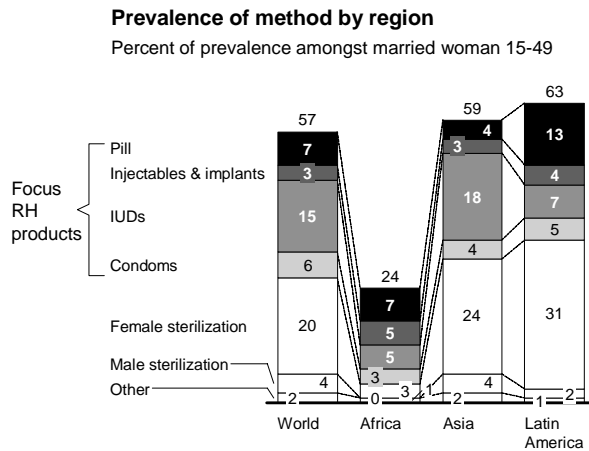
In addition, worldwide demand for contraceptive supplies is projected to increase due to a surge in the numbers of women and men of reproductive age and to success of family planning programs in activating demand. The United Nations estimates that to attain predicted fertility trends, the number of contraceptive users in developing countries other than China will increase by 19% (92 million users) between 2005 and 2015, of which a projected 53 million will use reversible method needing ongoing supply and 39 million will be additional sterilization users.⁸

Ensuring contraceptive availability will require both increasing available funds, as well as improving the efficiency of the current financing and procurement system (i.e. making available money go further). Opportunities for efficiency include interventions such as strengthening country planning and procurement activities (including LMIS systems), moving consumers with a willingness and ability to pay to the private sector to release public sector funds for those with greater need, increasing the predictability and reliability of donor funding, and utilizing procurement approaches to achieve optimal product prices.

⁸ United Nations Population Fund. *Contraceptives, Drugs, and other Medical Supplies needed for ICPD Reproductive Health Goals*. United Nations Population Fund, 2005 (in draft).

Exhibit 3.4

THERE ARE SIGNIFICANT DIFFERENCES IN PRODUCT PENETRATION BY REGION



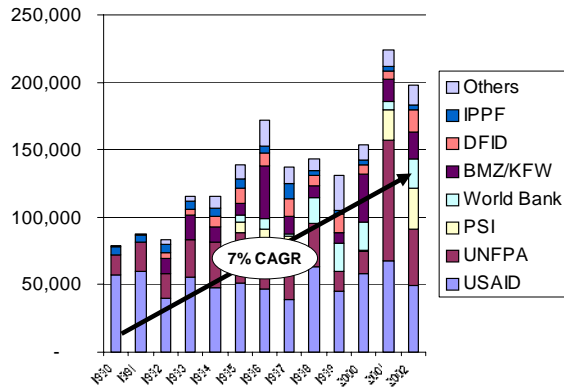
Source: UN, 2003; team analysis

A further resource efficiency opportunity exists in the role of “southern” or generic providers that have the potential to provide significant cost savings of up to 50% below OECD manufacturers. The proposed Reproductive Health Financing Mechanism could make it more attractive for these manufacturers to enter the market through the minimum volume guarantees. Other potential interventions related to this activity, however, are currently the focus of the RHSC Market Development Approaches Working Group and not discussed further here.

The primary focus of this paper, however, is on the volatility of donor funding for RH commodities. While figures vary, estimates used by the UN and the Gates Foundation size the total market for RH commodities across all developing countries at approximately \$900 million per year. Donor funding represents only a small portion of the total RH commodities market – less than 200 million per year. From 1990 to 1993, the average growth rate for donor funds was 14%, compared to 20% in the past three years. Despite this overall growth trend, however, donor funding for RH commodities fluctuates significantly, both in aggregate and by individual donor (*Exhibit 3.5*).

HISTORICALLY, DONOR FUNDING HAS FLUCTUATED SIGNIFICANTLY DESPITE THE OVERALL GROWTH TREND

TOTAL DONOR PROCUREMENT SPEND, BY DONOR
\$ '000



Source: UNFPA, interviews, project analysis

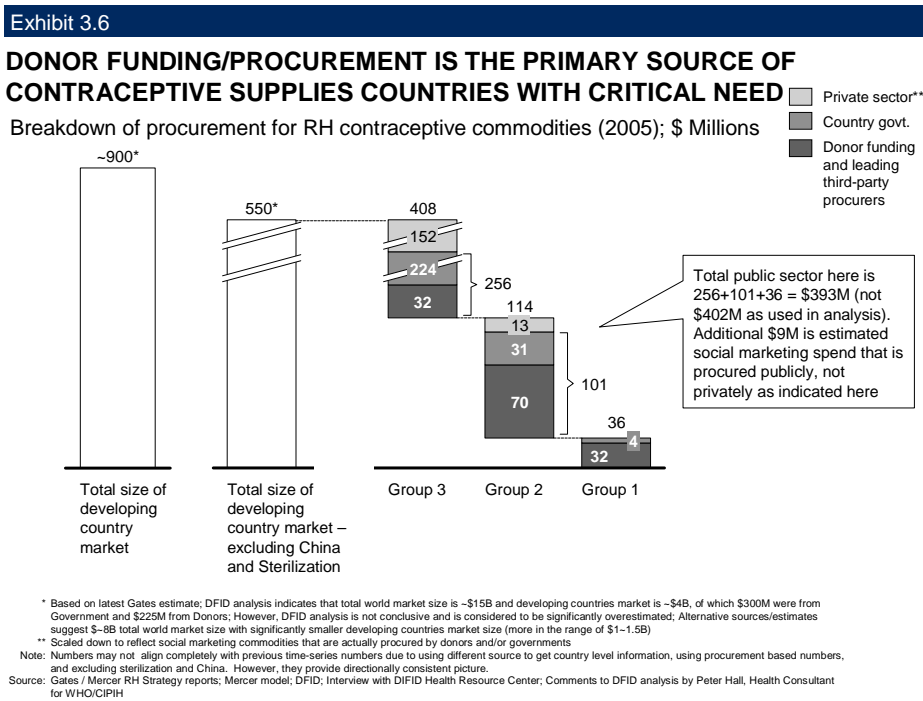
- High funding variability both at aggregate and individual donor levels
- Relative share of USAID decreasing over time with broadening of donor base
- Increasing role of UNFPA

A DFID Health Resource Centre paper offers additional insight on these fluctuations: “Current commodity procurement arrangements are too short-term or even last-minute, leaving too little time to organize procurement properly, let alone fit into a wider long-term RH strategy. A major reason for this seems to be the generally short term nature of donor budgeting cycles, combined with the difficulties in coordinating between different budgeting cycles and other financing procedures between various donors, agencies and countries involved.”

Of course, unpredictable, short-term funding commitments contribute to additional resource inefficiencies in areas such as:

- *Costly Shipments:* Inability to make and commit to longer-term shipment plans can contribute toward stock-outs that require costly emergency shipments.
- *Supply Lead Times:* Likewise, lack of more predictable, longer-term purchase commitments require that manufacturers ramp up production to meet unanticipated/uncertain volume requests.
- *Supply Chain Management Inefficiencies:* Unpredictable supplies constrain efficient country supply management; for example, an inability to report projected shipments constrains country monitoring and coordination of in-bound supplies.
- *Price:* Inability to engage in longer-term commitments with manufacturers compromises ability to achieve optimal commodity prices.

The impact of unpredictable donor funding varies across countries correlating with country reliance on donor funding. This study relied upon a segmentation of developing countries organized by Mercer Management Consulting (2005), in which countries were segmented into three groups based upon need (e.g., contraceptive prevalence rates, unmet needs), donor reliance, and overall system performance (e.g., JSI/Futures Contraceptive Security Index). Donor funding is the primary source of funding for Group 1 (primarily Sub-Saharan African countries, e.g. Rwanda, Ethiopia, Nigeria) and Group 2 countries (e.g., Bangladesh, Ghana and Kenya), where the need for these products is largest. (*Exhibit 3.6*). Group 1 and Group 2 receive 86% and 61% of their total RH procurement spend from public sources respectively.



The key insight regarding financing is that Group I countries- those with the lowest contraceptive prevalence rates – rely on donors for 90% of their funds, and are therefore most vulnerable to funding variability.

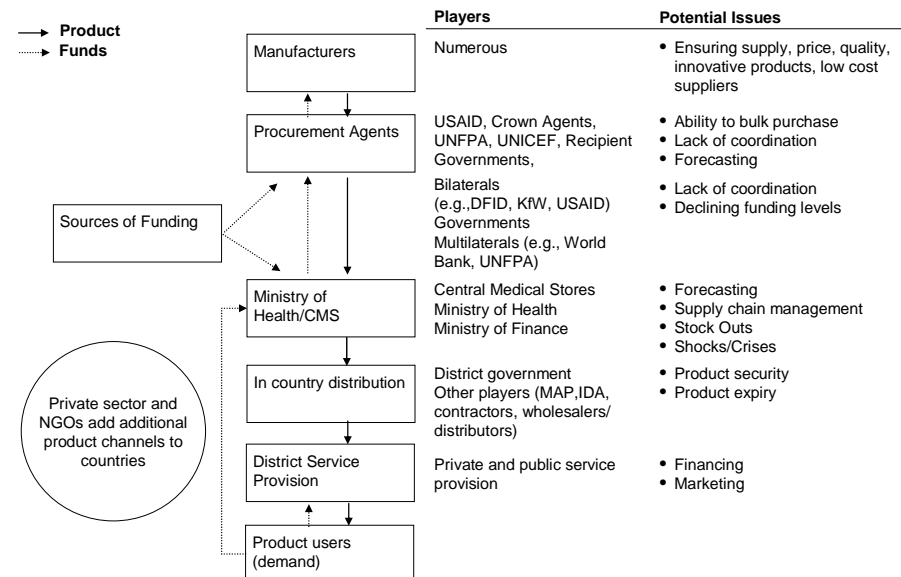
Furthermore, the supply chain for contraceptives in developing countries is extremely complex, and often exacerbates the problem of funding variability. Many individual countries order both directly from manufacturers and through the UNFPA or other third-party agencies. Main players in this space are country governments, foreign donors (often development agencies, e.g. KfW, USAID, DFID), procurement agents (e.g. Crown Agents), multilateral agencies (e.g. UNFPA),

development banks (e.g. World Bank), among others. Funding today moves from donors and multilateral agencies through procurement agents to the country governments [Exhibit 3.8]. This fractured procurement environment undermines global and national agencies' abilities to establish an optimal financing and procurement system – a system that would be characterized by long-term commitments to achieve optimal prices, access to flexible resources to respond to emergency needs, and a system that operates with a long-term vision.

This analytical exercise aims to examine and design financing options that could be introduced into this fractured and inefficient financing and procurement system to overcome some of these resource inefficiencies.

Exhibit 3.8

PUBLIC SECTOR CURRENTLY WORK WITH A COMPLEX SUPPLY CHAIN TO ENSURE RH COMMODITY SECURITY



4A. SUMMARY OF THE PROBLEM

The review of the current state of reproductive health commodity finance and procurement architecture identified three finance-related problems. First, the timing of donor funds across years is often uncertain with delays common. Second, the magnitude of donor funds is uncertain, particularly over successive years, so actual funds received may be smaller or larger than anticipated. Funding variability is felt most deeply at the individual country level, where funding can shift as much as

40% in a given year (*Exhibit 3.7*). Volatility between years contributes to country's inability to engage in long-term planning regarding scaling-up programs and in-country distribution. Third, donor funding for RH commodities often comes late within in a fiscal year and must be spent rapidly. This compromises planning and inhibits procurement strategies to achieve optimal prices. (*Exhibit 3.9*).

Exhibit 3.7

DONOR FUNDING VARIABILITY IN COUNTRY GROUPS 1 AND 2

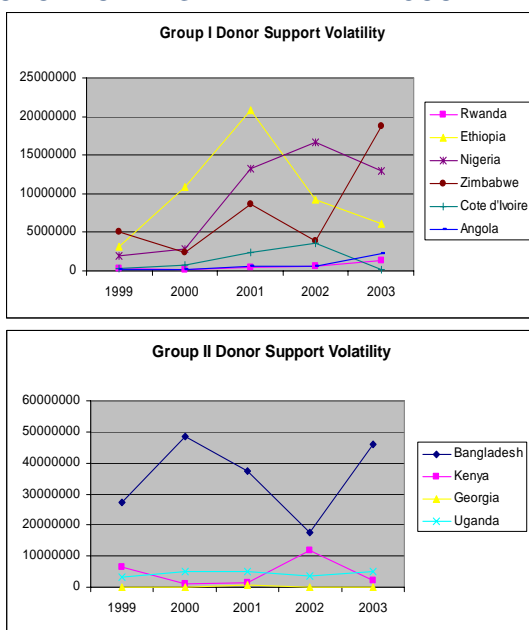
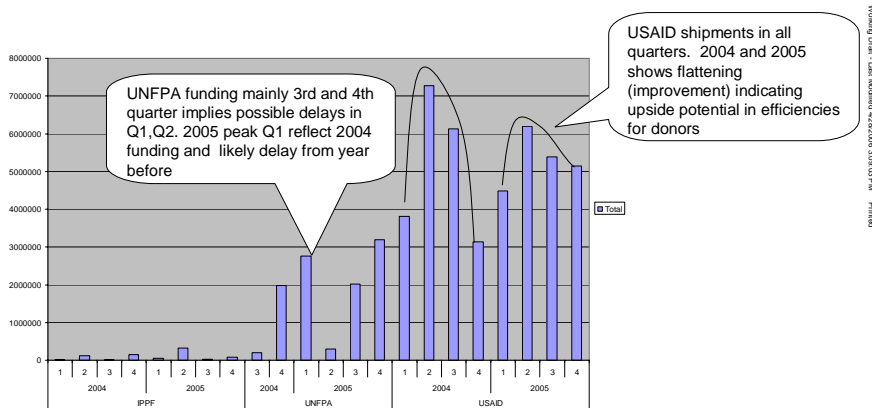


Exhibit 3.9

TIMING OF DONOR FUNDING FOR SELECT DONORS AND COUNTRIES

Within Year Major Donor Funding Variability For Group I Select Countries



*This is shipping data and may differ from approval date by funder
*Looks at maximal need for donors within year to smooth funding, comparable data only available for two years
Source: Team Analysis, Donor Funding Data (UNFPA, USAID, IPPF)

7

Again, the higher donor-reliant countries, who already face many other challenges, are predominantly affected by the donor financing fluctuations. The dynamics may lead to (*Exhibit 4A.1*):

- Emergency shipments (\$5+ million per year)
- Higher costs due to subscale orders and inability to commit long term to manufacturers
- Longer supply lead times sometimes resulting in stock-outs (overall country level stock-outs about 10 to 15 per year with 1 to 2 attributed to donor variability). Often procurement processes only start when cash is in hand despite awareness of a likely donation and the need for the products
- Cascading effects on the downstream supply chain: exacerbating issues of inefficient distribution, planning, and poor inventory management in-country – which can lead to local stockouts.

PUBLIC SECTOR CURRENTLY WORK WITH A COMPLEX SUPPLY CHAIN TO ENSURE RH COMMODITY SECURITY

Funding variability types	Issues	How it affects supply chain
Funding delays	<ul style="list-style-type: none"> Actual delivery of pledged funding comes later than expected 	<ul style="list-style-type: none"> Causes procurement/product delays; potentially results in stock-outs if no sufficient inventory buffer in place <ul style="list-style-type: none"> Leads to high prices and shipping costs for emergency shipping
Mismatch w/ procurement requirement	<ul style="list-style-type: none"> Timing of funding flow is driven by donor internal process cycle, not country needs <ul style="list-style-type: none"> Donors can not commit until cash in hand Money typically comes in lump sum in last quarter of the year and needs to be spent by the end of the year (UNFPA) Small monthly budget allocation from government 	<ul style="list-style-type: none"> Countries rush to spend money without proper procurement planning <ul style="list-style-type: none"> Leads to high prices, over stocking, high storage cost, and waste/leakage Manufacturers face demand spike <ul style="list-style-type: none"> Delay in product shipments due to capacity constraint and long production lead time Makes "bulk" procurement difficult <ul style="list-style-type: none"> High product price and shipping costs
Unpredictability in amount	<ul style="list-style-type: none"> Funding commitments are short term (~1 year) and unpredictable Donors at times pull out of commitments 	<ul style="list-style-type: none"> Countries overstock when they can to minimize stock-outs <ul style="list-style-type: none"> Leads to waste and high storage cost Prevents long-term planning and capacity building Leads to stock-outs if countries can not find alternative funding source in time

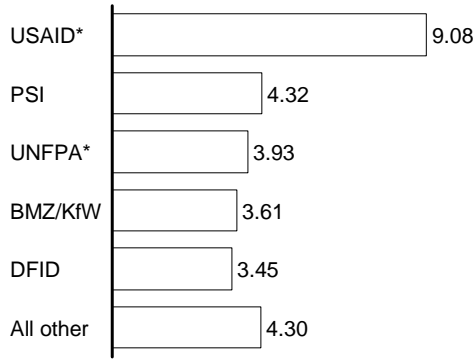
Source: Interviews

Unpredictable funding also contributes to another resource inefficiency observed in the system, whereby a significant portion of donor and government spend on commodities does not achieve best price. Variations in product procurement prices across agencies exist for a number of reasons: vendor source, volume discounts, etc. Nonetheless, interviews with manufacturers indicated that better prices could also be achieved if procurers could make advanced, long-term commitments to enable production planning – a practice that USAID utilizes. These price advantages are inaccessible, however, to agencies such as UNFPA who operate with shorter-term cash flow and cannot assume the risk of long-term contracts. As discussed elsewhere, interviews suggested that manufacturers are willing to reduce prices in return for more predictable and longer term commitments from procurers.

4A.2 THERE ARE SIGNIFICANT VARIANCES IN PROCUREMENT PRICES ACROSS DONORS/AGENCIES

Major condom procurers 2002 – average procurement prices

Dollar per gross (144), constant 2002 prices



Potential drivers of price differences

- Vendor sourcing (e.g., use of “southern” or generic providers)
- Extent of volume discount
- Order scheduling efficiency (e.g., emergency orders)
- Quality vs. price trade off
- Extent of customized packaging / labeling

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* 2004 numbers are 7.1 for USAID and 3.5 for UNFPA

Note: USAID prices are substantially higher than average. This is likely to be due to their use of tied aid (Buy American), though this has not been confirmed. PSI figures may be due to part use of tied aid

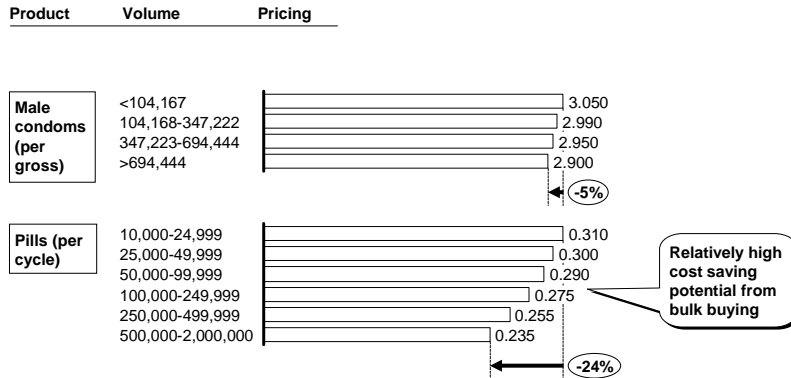
Source: UNFPA; project analysis

Moreover, best prices are not achieved with manufacturers both because procurers make sub-scale orders and are unable to make long term commitments. A minimum volume guarantee or pledge guarantee can enable countries to aggregate their own purchasing (that might be split by the timing of receipt of funds) or getting a “best price” from a longer term commitment. These approaches would still be promoting country ownership and building upon existing finance and procurement structures.

4A.3 THERE ARE SIGNIFICANT PRICE DIFFERENCES FROM A MANUFACTURER BASED ON ORDER VOLUME

EXAMPLE

Select manufacturers volume-based pricing for UNFPA (2005 data)
Dollars



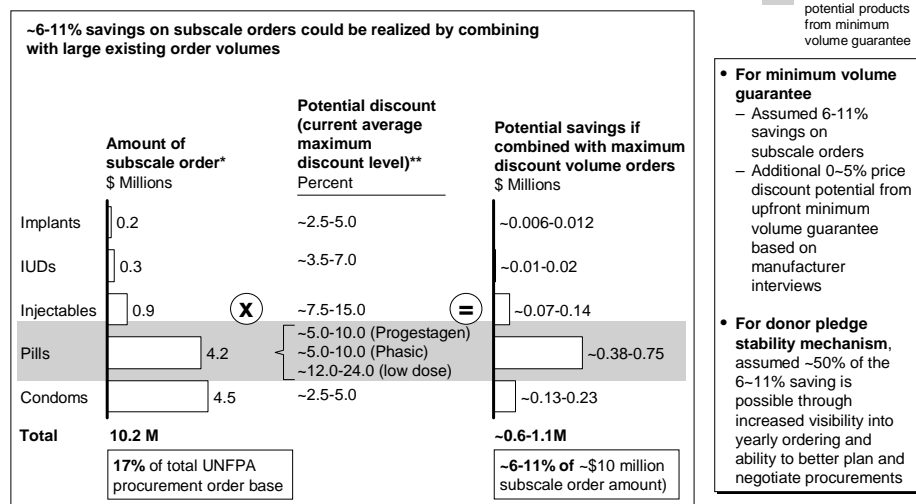
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Source: UNFPA

This analysis estimated that >50% of global public sector purchasing does not get best price either because:

- An individual order is too small (estimated to characterize 20% of UNFPA and country direct procurement with 6-11% savings possible if aggregated- based on interviews with select manufacturers on potential volume discounts that could be made available).
- The purchaser did not make an advance commitment (estimated to characterize 40% for UNFPA purchases and country-direct procurement, with up to 5% savings possible, based on interviews with select manufacturers on efficiency discounts that could be provided).

4A.4 ANALYSIS OF UNFPA PROCUREMENT ORDER DATA SUGGEST 6 TO 11% POTENTIAL SAVING ON SUBSCALE ORDERS BY COMBINING WITH LARGER ORDERS



* See Exhibit 7 for details
 ** Based on pricing table of representative major vendor; average used half of maximum discount level
 Source: UNFPA procurement order database (2005); manufacturers interview

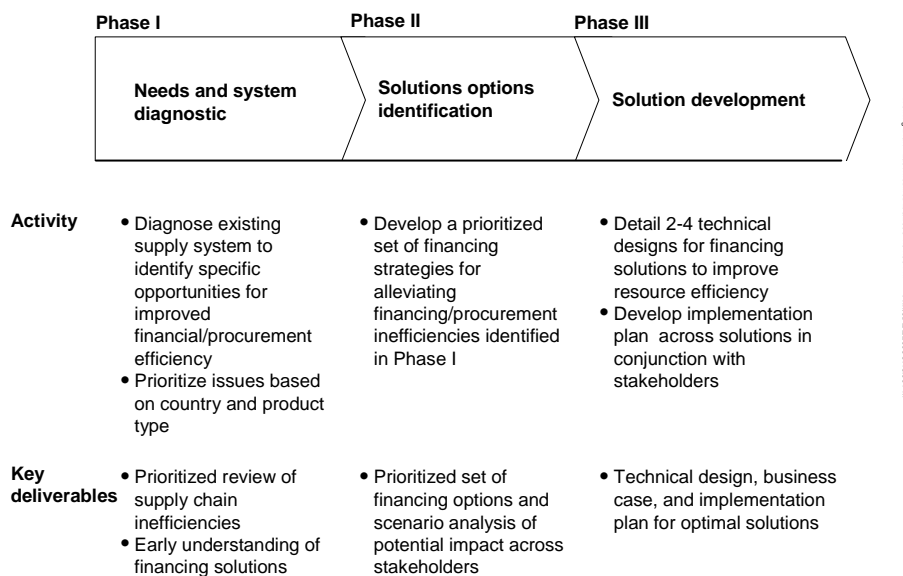
Countries and UNFPA procurers are particularly missing opportunities for getting better health for their dollar given fragmented, subscale spend on pills and condoms. Pills and condoms show higher cost opportunities because over 75% of spend for these commodities is open for volume discounts. In contrast, only 16% of injectables is available for volume discounts, due to the presence of fixed price contracts from several manufacturers for this commodity. The volume of IUDs and implants may be too low to warrant substantial savings from aggregating spend, but could be examined through further research.

In summary, the RH contraceptive financing and procurement architecture does present opportunities for greater resource efficiencies. Country spend, either due to the budget allocation process, delays in receipt of donor funding, or typically small orders, is often made piecemeal throughout the year, and is unable to achieve optimal spend. UNFPA, while it has a more robust pipeline of funding, is unable to guarantee any product purchases, since it is unable to take on risk under UN bylaws and regulations. Various efforts are underway to encourage donors to make longer-term commitments that might alleviate many of these problems. But until this state of play is achieved, strategic financing initiatives could be introduced to help ensure dollars are utilized for maximum resource efficiency and health impact.

4B. APPROACH

To develop the financing options, the team conducted a literature review, interviews of 40+ reproductive health experts, and reviewed findings and proposals with a five member Advisory Group. This group convened six times during the course of the 8 week project, receiving continuous input on approach and design specifics. The workplan below further outlines the process that lead to the recommendations described in this document:

4B.1 OVERALL WORKPLAN FOR “IMPROVING RESOURCE EFFICIENCY” 2006



5

The following activities were conducted to enable the Advisory Group to make informed decisions regarding potential financial mechanisms:

1. Extensive external literature review related to reproductive health and financing design
2. Targeted interviews with several different types of stakeholders, including government policy makers and agencies, manufacturers (e.g., Condomi, Hindustan, Merck, Mayer Labs), donors, including bilateral agencies and NGOs, procurement agents at NGOs, UNFPA, USAID, social marketing agencies, and country offices. (See Appendix B for full list)
3. Analysis of funding variability within years and across years for selected countries and analysis of CAR meeting notes mapped to shipping data
4. Solution option development with advisory group and other experts
5. Idea evaluation, shortlisting of options, and detailed solution development

Out of the variety of initial options proposed, the Advisory Group narrowed down the solution set to the two options outlined here by assessing the the options based on impact, feasibility, and alignment with existing system. In addition, the group considered the costs, financial benefits, and capital required for each service, as well as indirect downstream benefits to the overall RH system, as well as critical implementation hurdles.

4B.2 CRITERIA TO ASSESS SERVICES

	Criteria	Example
Impact	<ul style="list-style-type: none"> • Solves priority issues (i.e., funding variability, delays, stockouts) • Has positive indirect impact • Aligns with current field trends/direction 	<ul style="list-style-type: none"> • Addresses priority issues of funding variability, delays, stockouts • Facilitates country planning • Creates incentives for improving country systems • Supports high risk countries • Develops supply base for RH commodities • Harmonizes with other initiatives in the RH space
Feasibility	<ul style="list-style-type: none"> • Ease of use • Operational Risk • Fits within system constraints 	<ul style="list-style-type: none"> • Easy for donors, countries, manufacturers to use • Will be able to maintain capital base, whether through fees or top-ups; and manage default risks • Does not require any major legal or procedural changes to the current way of doing business

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5. GOAL, OBJECTIVES AND TARGET MARKETS

5.1 Goal

The overall goal for the financing mechanism is to improve the efficiency of the global financing and procurement architecture for reproductive health commodities.

5.2 Objectives

In light of that goal and the problem analysis, the Advisory Group decided to focus on solving three key inefficiencies:

- Accelerating access to funding and products from donors
- Minimizing lead times and
- Reducing the total cost of providing products

Targeting these key elements would significantly help improve the current RH commodity distribution landscape. Beyond financial savings, the mechanism would also indirectly help resolve downstream supply issues. Increased reliability in funding flows allows for longer term planning and more efficient management of distribution.

The Advisory Group reviewed and identified certain strategic approaches to achieve the objectives (*Exhibit 5.2.1*):

- ¶ Accelerate access to funding and products from donors -- from as long as six months to less than 6 weeks through providing access to funds with proof of pledge (this is necessarily a rough estimate but timing is estimated from the time a donor would be willing to make a “pledge guarantee” until product arrives at a country)
- ¶ Minimize product lead times -- from 4 to 5 months to less than 2 to 3 months through:
 - Provide minimum volume guarantees to manufacturers to enable manufacturer planning and scheduling
- ¶ Reducing the total cost of providing products -- by 5%-20% through:
 - Making advance commitments and negotiating volume contracts
 - Potentially expanding the supplier base to include emerging suppliers

In addition to the gains from the three objectives above, solutions were identified by the Advisory Group based upon the impact the approaches might have indirectly on issues such as improving country ownership of RH commodity issues, in-country forecasting & investment, and downstream supply issues.

5.2.1 VALUE PROPOSITION AND POSSIBLE SPECIFIC OBJECTIVES

	Possible objectives	How to achieve
Accelerating access to funding / products from donors...	<ul style="list-style-type: none"> Accelerate donor pledge to actual funding time to less than six weeks for 80% of UNFPA and 30% of all other donor funding 	<ul style="list-style-type: none"> Provide front-loaded reproductive commodities to countries with proof of donor pledge
...Minimizing lead times...	<ul style="list-style-type: none"> Reduce supply lead times to an less than 2-3 months Reduce central warehouse stock outs by 10% 	<ul style="list-style-type: none"> Provide minimum volume guarantees to manufacturers to allow for planned production and timely delivery
...Reducing the total cost of providing products	<ul style="list-style-type: none"> 5-20% total purchasing cost reduction in the first three years (primarily OCl)s* ~ 35% total purchasing cost reduction in 3-5 years (primarily hormonal pills, and injectables)* 	<ul style="list-style-type: none"> Negotiate contracts for aggregated volumes and reduce freight, waste, and storage cost through improved in manufacturer's production planning, delivery, and storage Expand supplier base with financing and TA support to southern manufacturers

* Total purchasing costs would include price to manufacturer, shipping costs, storage costs, waste, discounts

6

5.3 Target markets

After reviewing the nature and size of problem, the Advisory Group recommended examining mechanisms that focus on:

- ¶ All major consumer product lines – condoms, OCs, injectables, IUDs, and pills (although the majority of suboptimal spend in the system is for pills and condoms)
- ¶ Primarily on Group I and II countries (donor dependent) countries, although it will not exclude others
- ¶ Additional target markets include UNFPA, donor-dependent countries not reliant primarily on USAID, and NGOs⁹

⁹ USAID initially indicated unwillingness to participate in mechanism based on current efficiencies, procurement policies, and an existing USAID warehouse and buffer fund

6. SERVICE OFFERING

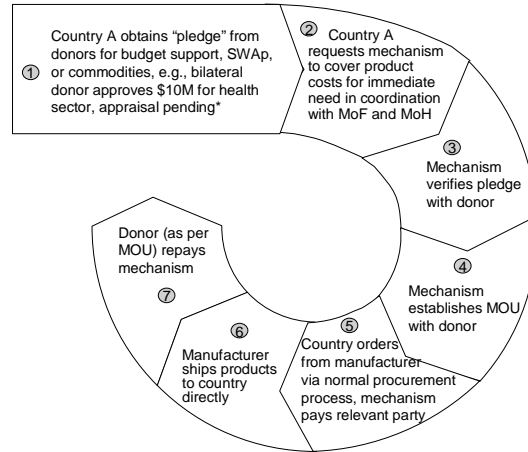
Analysis and Advisory Board input ultimately identified two mechanisms that fit the criteria and could contribute toward achieving the stated goals: a pledge guarantee and a minimum volume guarantee. To ensure that the mechanism has the greatest impact possible, we propose that the RH community consider developing both services, although not all customers of the mechanism may use both services.

6.1 Pledge guarantee service

OVERVIEW

Past studies and interviews with country managers and representatives have indicated that uncertainty on the timing of donor funding is a significantly cited issue with significant down stream effects on supply security. The pledge guarantee service will provide countries with cash to buy RH products based on a pledges from a donor. The service guarantees donor pledges by providing countries access to promised funds when necessary with proof of donor pledge and agreement to participate in the mechanism (a commitment to repay). This will smooth timing variability. This mechanism directly addresses donor funding variability and benefits the countries most at-risk for RH commodities shortages by allowing countries and organizations to access funds to procure commodities while waiting for donor funding and thereby: 1) lowering costs by decreasing emergency shipments, 2) avoiding stock-outs, and 3) reducing cost of product through advance notice/negotiations.

6.1.1 SERVICE A – PLEDGE GUARANTEE MECHANISM OVERVIEW



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OPERATIONS

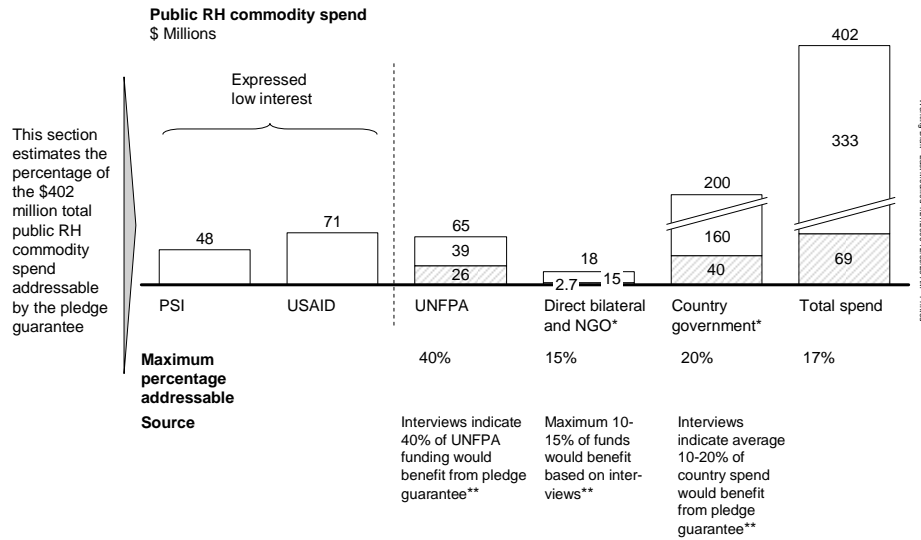
In order to achieve these objectives, the pledge guarantee service provides credit against a donor pledge, for donor-dependent countries, the UNFPA, and NGOs. The reason for this operating model is that donor dependent countries and UNFPA are unlikely to use a debt incurring credit line for commodities. (see exhibit 6.1.1 for example of operations). Examples of how this mechanism would apply in certain contexts (countries, UNFPA, etc.) are included in Appendix F.

RATIONALE

Interviews with donors suggest that this service would work for several reasons. First, although the timing of donor pledges is variable, there is a high rate of follow through on these commitments. Second, in many situations RH commodities represent a small part of total bilateral and health aid to a country. As a result, donors may approve "pre-financing" for these products as they pursue the more complex and time consuming planning and reviews for a larger aid package. Third, longer-term pledges and signs of improved coordination are increasing among this sector.

ADDRESSABLE MARKET

6.1.2 PLEDGE GUARANTEE – TOTAL SIZE OF OPPORTUNITY: \$69 MILLION □ Addressable by pledge guarantee mechanism



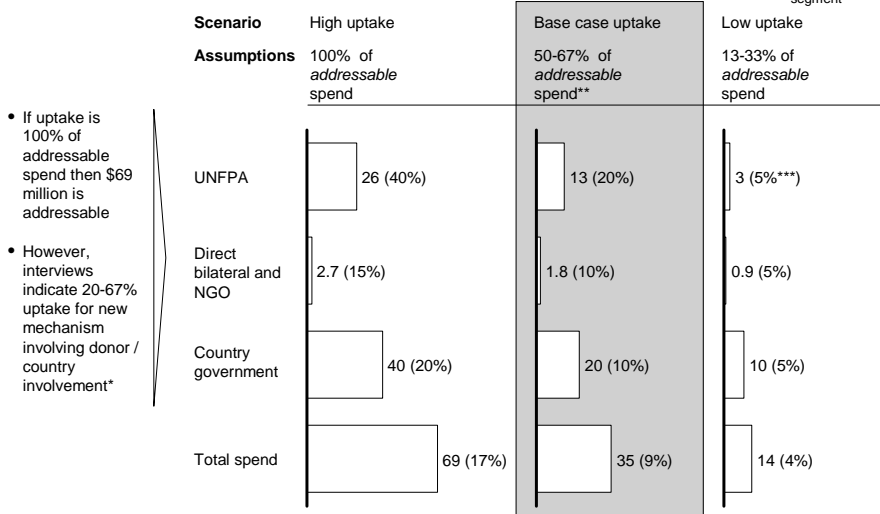
The total addressable market is \$69 million across a range of public RH commodity spend as shown above, based on the portion total spend that *could* be addressed by the mechanism (USAID and PSI were not interested) and would positively impact delays due to variability (UNFPA spend is especially volatile) (Exhibit 6.1.2). Based on interviews, a conservative, base case assumption for the uptake of the mechanism was approximated at 50% of the addressable market, or \$35 million (Exhibit 6.1.3). This represents approximately 10% of public RH commodity spend, based on interviews and analysis of the spend that is currently highly variable, impacted by donor funding delays, and could be impacted by a mechanism.

6.1.3 PLEDGE GUARANTEE – BASE CASE UPTAKE ESTIMATE Chosen scenario

\$35 MILLION

Public RH commodity spend; \$ Millions

() Percent of total annual commodity expenditure for segment



• If uptake is 100% of addressable spend then \$69 million is addressable

• However, interviews indicate 20-67% uptake for new mechanism involving donor / country involvement*

* See Appendix Exhibit 7 for more details

** Assumes a slighter higher base case percentage uptake for bilats (67% vs. 50%) based on interviews

*** Assumed 5% as worst-case scenario across all groups, in the event the field does not understand or legitimize the concept

Source: Interviews; Team analysis

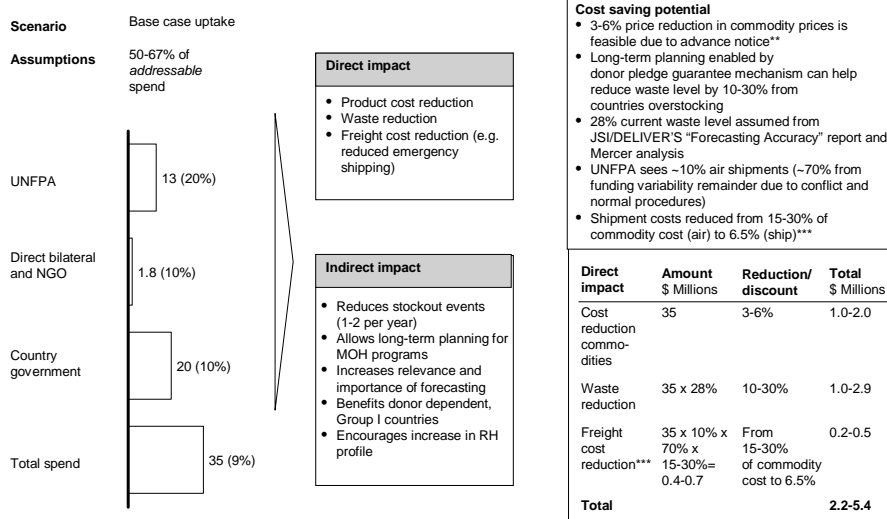
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IMPACT/COST:

The pledge guarantee mechanism would have an estimated annual direct impact of \$2.2-5.4 million in direct cost savings to participating countries/donors through reduced emergency shipping, reduced stockouts, reduced waste, and reduced product cost (*Exhibit 6.1.4*). The pledge guarantee would also indirectly improve the downstream supply chain by allowing for effective, long-term planning and enabling improved supply chain management. This mechanism would cost \$2.7-4.5 million and would require an estimated initial capital outlay of ~\$26 million (*details discussed in Section 9*).

6.1.4 PLEDGE GUARANTEE – IMPACT ESTIMATE: \$2.2-5.4 MILLION

Public RH commodity spend; \$ Millions, (% of total annual spend for segment)



* See Appendix Exhibit 8 for further details on Countries-At-Risk (CAR) assessment of stockouts

** Assumed about 50% of 6-11% volume-based cost saving potential assumed due to improved procurement planning and negotiation with advanced notice; See Appendix Exhibit 9

*** Reduction results from shifting from air freight to non-air freight; For more detail see Appendix Exhibit 10

Source: JSI/DELIVER; UNFPA; Interviews; team analysis

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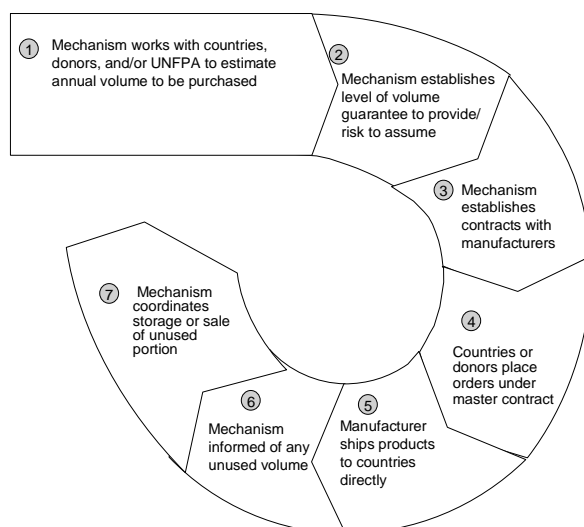
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6.2 Minimum volume guarantee mechanism

OVERVIEW

A second finance option addresses the problem of sub-optimal prices due to small and/or unpredictable orders through a minimum volume guarantee negotiated with manufacturers. The minimum volume guarantee would either negotiate price discounts with manufacturers through volume guarantees over specified time periods, or would back a single procurer's negotiations by guaranteeing their volumes and accepting their risk to enable better prices. The value of this service is that it will reduce product cost and total lead times by advance notice and guaranteeing volumes with manufacturers, and, in the long term, this could be used to help rationalize the number of SKUs or brands to ease complexity in the supply chain. In order to do so, the mechanism will serve two core functions: 1) aggregate global volumes of target clients, and guarantee minimum volumes to manufacturers, and 2) develop pre-negotiated contracts which will allow for faster turnaround times. Over time, the mechanism might pursue additional activities such as working with countries and manufacturers on branding and packaging to reduce procurement and distribution costs, but these are not envisioned at start up.

EXHIBIT 6.2.1. SERVICE B - MINIMUM VOLUME GUARANTEE



2

OPERATIONS

A schematic explaining the operation of the mechanism is illustrated in Exhibit 6.2.1. The mechanism takes the risk on volumes based on estimated usage and negotiates discounts with manufacturers by providing advance commitments. This helps manufacturers plan production and staging in advance of actual orders and improves overall efficiency in the chain. The financing mechanism assumes the cost of any portion of the negotiated minimum volume that is not procured. Examples of how this mechanism could resolve finance challenges in different contexts (e.g. UNFPA, decentralized country, etc.) are included in Appendix G.

RATIONALE

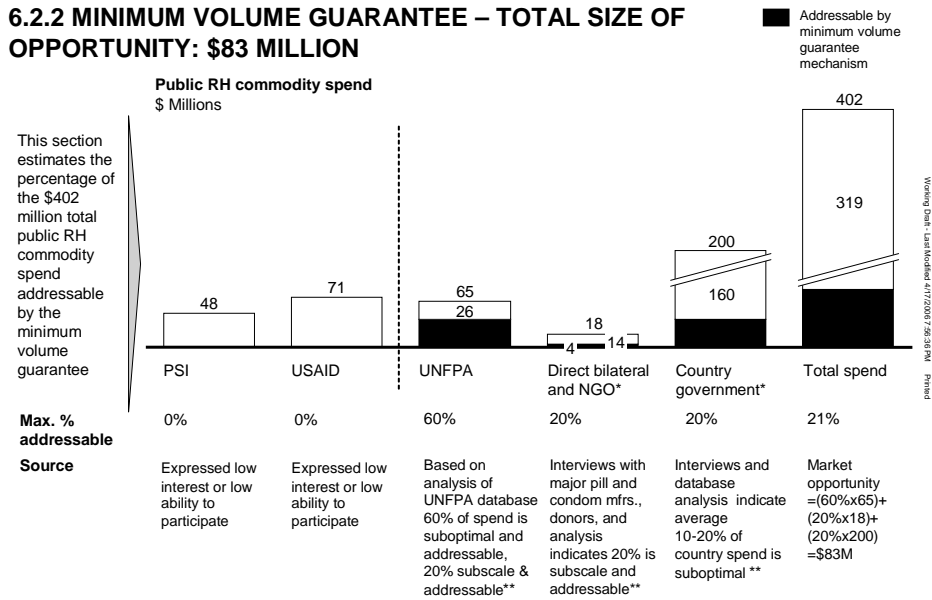
This mechanism allows virtual aggregation/pooling of orders while taking the long-term commitment risk that procurers cannot assume. For example, UNFPA benefits due to the ability of mechanism to take risks on projected orders. Countries with small orders/decentralized procurement also can take advantage of the lower price contract. In addition to reducing commodity costs and lead times, this service also has several indirect benefits. The mechanism's risk taking ability is influenced by the accuracy of demand forecasts. In order to be most effective, it could therefore be structured to include incentives/rewards over time for improvements in forecast accuracy. Second, with the potential for a guaranteed volume and/or access to new buyers, more manufacturers will be encouraged to enter this market, which will likely drive down prices further in categories like oral contraceptives where few

manufacturers play today. Third, manufacturers will now have an incentive to ensure that their products are “pre-qualified” to participate in the volume agreements, increasing quality of products in the market.

ADDRESSABLE MARKET

The total addressable market is \$83 million, based on estimates of the spend for RH commodities that is either subscale (not leveraging volume discounts) or suboptimal (not leveraging manufacturer guarantee discounts). Of this total, market uptake was conservatively estimated at 75%, or \$62 million of the total, based on interviews of pill and condom manufacturers and country managers (shown in Exhibits 6.2.2 and 6.2.3 below).

6.2.2 MINIMUM VOLUME GUARANTEE – TOTAL SIZE OF OPPORTUNITY: \$83 MILLION



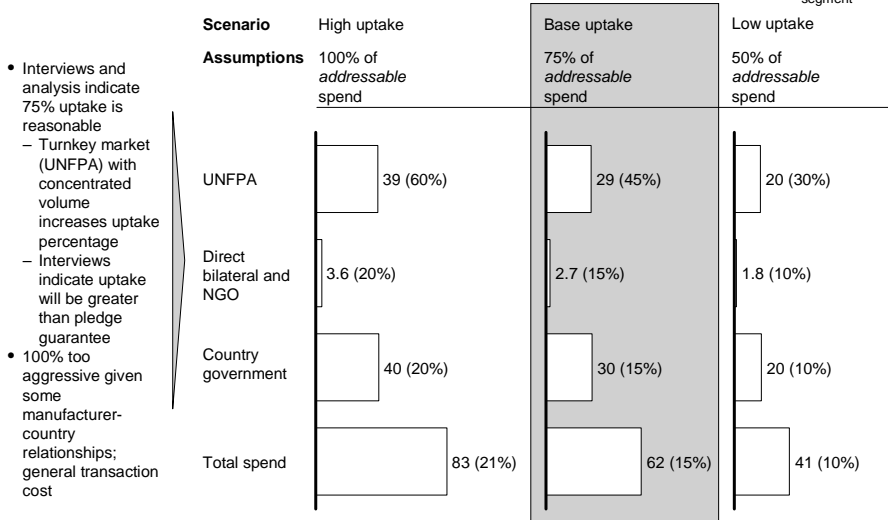
* Total country government and direct bilateral and NGO spend estimates derived from multiple sources (see Appendix Exhibit 23 for detailed estimate); Country government includes portion provided by donors through budget support
 ** Suboptimal= Could benefit from committing volume upfront, Subscale: Could benefit from combining with large volume orders; see Appendix Exhibit 6 and 7 for details
 Source: PSI; USAID; UNFPA; Interviews; Team analysis

Exhibit 6.2.3

MINIMUM VOLUME GUARANTEE – BASE CASE UPTAKE

Public RH commodity spend; \$ Millions, (%)

□ Chosen scenario
 () Percent of total annual commodity expenditure for segment



- Interviews and analysis indicate 75% uptake is reasonable
 - Turnkey market (UNFPA) with concentrated volume increases uptake percentage
 - Interviews indicate uptake will be greater than pledge guarantee
- 100% too aggressive given some manufacturer-country relationships; general transaction cost

Source: Interviews; team analysis

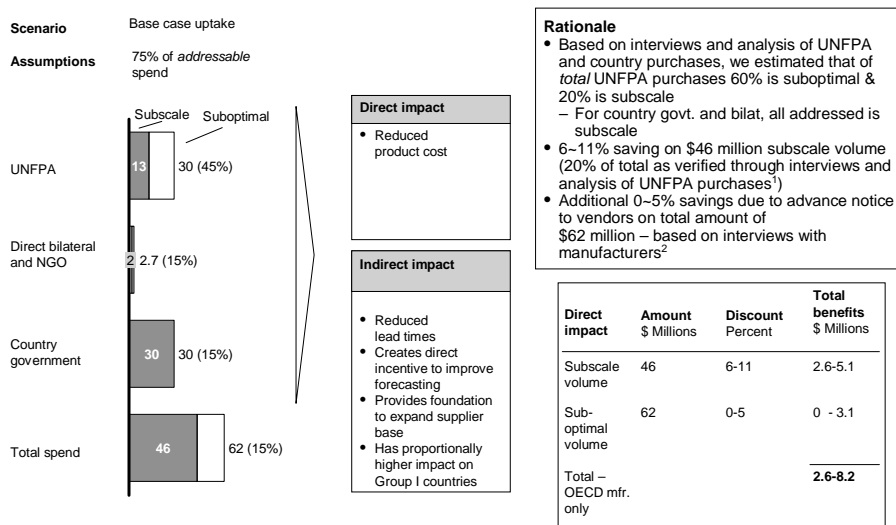
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IMPACT

The minimum volume guarantee service would have an estimated annual direct impact of \$2.6-8.2 million in the early years that would be realized in direct cost savings to participating countries/donors, and would indirectly reduce lead times (*Exhibit 6.2.4*). This mechanism would cost \$2.1-3.9 million and would require an estimated capital outlay of \$2.5-5.0 million.

6.2.4 MINIMUM VOLUME GUARANTEE – IMPACT ESTIMATE: \$2.6-8.2 MILLION

Public RH commodity spend; \$ Millions, (% of total annual spend for segment)



¹ 46 million includes subscale volumes of 13 million from UNFPA, 2 from bilateral, and 31 from countries

² Indicates savings due to upfront commitment of purchase, percentage varies across manufacturers, see appendix Exhibit 13 for more details on savings

Source: Team analysis

4

A straight forward approach to the minimum volume guarantee would be to begin with the UNFPA only. By simply guaranteeing volumes on behalf of UNFPA to select manufacturers, the mechanism can have immediate uptake and reach critical mass before including other target markets. This approach could potentially use existing UNFPA personnel and have smaller operating costs. The estimated impact of the minimum volume guarantee backing only UNFPA, would be \$1.0 to 4.1 million (see Appendix D for further details on this approach).

6.3 Value of two services together

While both the pledge guarantee and minimum volume guarantee services have merit; the combination of both of these services will enable the mechanism to have the greatest reach and potentially enable strengthening of country systems. First, the combined services will target a wider breadth of clients, from those who are donor dependent to those which are self-procuring. Second, volume from pledge guarantee will drive volume and savings through minimum volume guarantee (\$5M-\$10M, primarily country government spend). Finally, administrative and management costs can be limited if both services are combined within one organization.

7. Business model, systems and partnerships

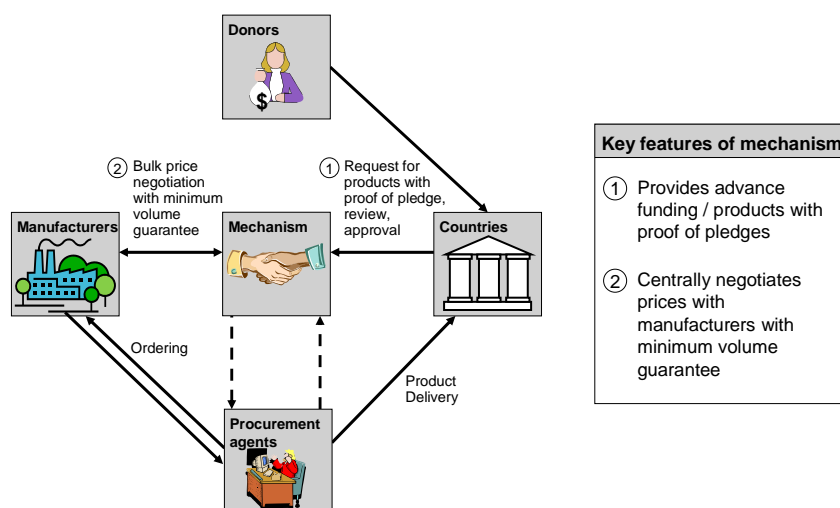
The mechanisms are characterized by:

- Financial capacity (e.g. ability to make multi-month, effectively unsecured loans to countries and assume backorders)
- RH expertise (e.g. forecast RH commodities demand, understand country/sector needs)
- Procurement expertise (e.g. strong contact with procurement agencies, may need to negotiate volume agreements with manufacturers directly or via an existing specialized procurement organization)
- Country and agency relationships (e.g., monitor effective procurement, repayment, and maintain strong relationship with MoHs and MoFs)

The mechanism must also have administrative and back-office capabilities to sustain operations. Finally, the mechanisms must be able to remain independent of country pressure (e.g. pressure to give credit when inappropriate or not collect debts).

The core business model of the pledge guarantee mechanism would allow countries and donors to opt-in as desired. The mechanisms would begin through country and/or donor notification wherein they would contact the mechanism to request access to product based on either a (1) donor promise and/or (2) desire to purchase product at “mechanism” prices for cash at some point in the future. This notification would be followed by (1) a pledge verification or (2) willingness to pay verification. Once the pledge / minimum volume has been verified either (1) the country contacts an approved manufacturer to receive the “Mechanism” price OR (2) Country gets credit from the Mechanism and contacts select manufacturers/procurers to source product and ship directly to country. Finally, the country/donor would repay the mechanism the required amount (*Exhibit 7.1*)

7.1 MECHANISM BUSINESS MODEL (SERVICES COMBINED)



Strong partnerships are required to ensure the efficacy of this non-grant approach and the focused scope of the mechanism. Partners are required to play two roles. First, advocacy is required to communicate the benefits of a new service to the existing aid architecture. Second, the partners will need to consider non-OECD suppliers in areas like oral contraceptives. This movement will enable the mechanism to realize more value from bulk purchasing and advance commitments.

Thirdly, the technical and geographical expertise of several key partners is needed to perform critical tasks, including forecasting and inventory analysis, in-country distribution, evaluation of potential manufacturers, and technical assistance to non-OECD suppliers.

8. GOVERNANCE, ORGANIZATION AND MANAGEMENT

The management of both the pledge and volume guarantees require similar activities, including 1) managing country interactions, 2) forecasting the guarantee level, 3) establishing contracts with manufacturers, 4) ensuring orders/ contracts are

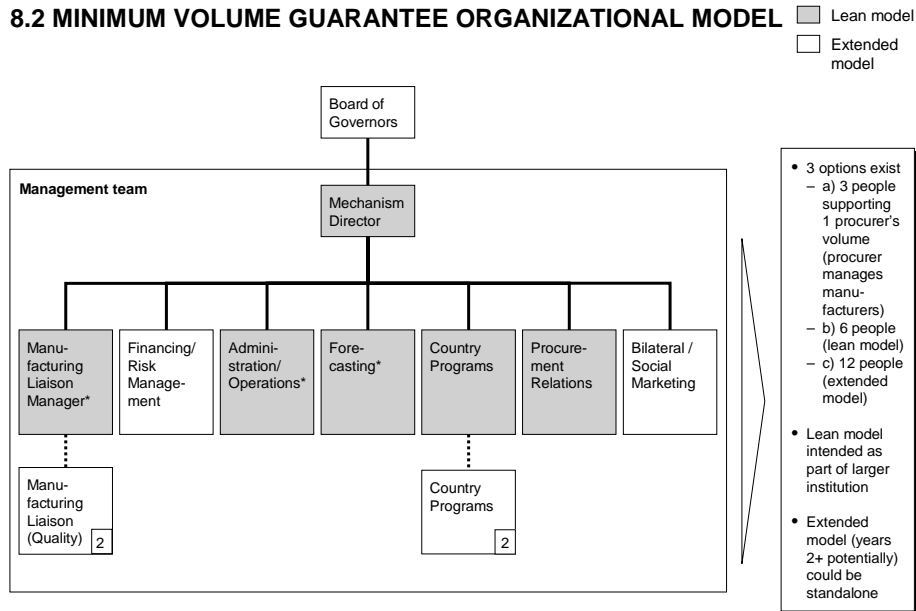
executed, 5) managing the technical pledge processes, and 6) managing the financial processes (*Exhibit 8.1*).

8.1 EFFICIENCIES EXIST IN SHARED ADMINISTRATION AND FUNCTIONAL ACTIVITIES BETWEEN MECHANISMS

	Key activities - pledge guarantee	Key activities - Minimum volume guarantee
Forecasting	<ul style="list-style-type: none"> • Only as part of verification with donor regarding pledge 	<ul style="list-style-type: none"> • Interprets current demand levels and past performance to establish expected volume to guarantee as a mechanism
Contract management	<ul style="list-style-type: none"> • Technical pledge processes <ul style="list-style-type: none"> – Manages contracts between donors and mechanism – Interprets legal regulations – Ensures MOUs processed in a timely/effective manner 	<ul style="list-style-type: none"> • Establishing contracts with manufacturers <ul style="list-style-type: none"> – Links with manufacturers and allocates guarantees across manufacturers, depending on product type/capacity – Potentially promotes terms as part of contracts (e.g., heat-stable packaging, integration with RHI, GMP, low rate for defect allowances) • Ensuring orders/contracts are executed <ul style="list-style-type: none"> – Monitors execution of orders via procurer – Monitors finance/purchasing when product needs to be purchased
Financial management	<ul style="list-style-type: none"> • Manages repayment; follow up when funds are delayed • Manages finances of funds, ensures adequate cash flow 	<ul style="list-style-type: none"> • Manages purchase process if end of year guarantee level is not met by countries
Communications	<ul style="list-style-type: none"> • Working with Ministry of Finance and/or Ministry of Health liaison to navigate country budget system • Maintaining relationships with major donors • Training countries and donors on application process • Works to ensure maximum uptake of service 	<ul style="list-style-type: none"> • Working with Ministry of Finance and/or Ministry of Health liaison to navigate country budget system and existing procurement system / guidelines • Training countries and donors on application process • Works to ensure maximum uptake of service

Because of the overlap in skills required, there may be economies of scale and scope in having these activities handled by one organization. The key functions that need to be managed are administrative, marketing, and operations. Exhibit 8.2 outlines a potential organizational structure and roles for the mechanism’s management team, for the minimum volume guarantee service.

8.2 MINIMUM VOLUME GUARANTEE ORGANIZATIONAL MODEL



* Needed to support single procurer (i.e., UNFPA, Crown Agents only) – 3 positions total
Source: Team Analysis

An independent Board of Directors would be recommended to provide oversight to the funding strategies and execution of activities. There are multiple structural options for the Board, but the best model could be a small oversight Board of 3 to 5 members. This Board would not be representative in nature.

There are a variety of different options for where to house the services outlined in the following chart (Exhibit 8.3):

8.3 KEY OPERATING CRITERIA FOR HOST INSTITUTIONS

● Relevant

Criteria	Description of abilities required	Criteria's importance to mechanism type		Host institutions				
		Pledge guarantee	Min. vol. guarantee	Commercial bank	Develop. bank	Multilateral institution	Nonprofit foundation	UNFPA
Financial capabilities	<ul style="list-style-type: none"> Ability to take risk (e.g., make unsecured loans, back orders) Receive financial commitments Disburse funds to firms/ countries Collect functions from countries 	●	◐	●	●	◐	◐	◐
RH expertise	<ul style="list-style-type: none"> Demand forecast for RH commodities Understand country/sector needs and recommend appropriately Maintain dialogue with sector stakeholders 	◐	●	○	◐	◐	◐	●
Procurement expertise	<ul style="list-style-type: none"> Contract with procurement agencies Contract and negotiate with manufacturers 	○	●	○	◐	◐	◐	◐
Country /agency relationships	<ul style="list-style-type: none"> Monitor effective procurement Maintain relation with country MoH, HoF Maintain relations with agencies 	●	●	◐	●	●	◐	●
Back-office support	<ul style="list-style-type: none"> Legal, IT, HR support Ensure effective working environment for employees 	◐	◐	◐	◐	◐	◐	◐
Independence	<ul style="list-style-type: none"> Independent of institutional pressure 	●	●	●	◐	◐	◐	○

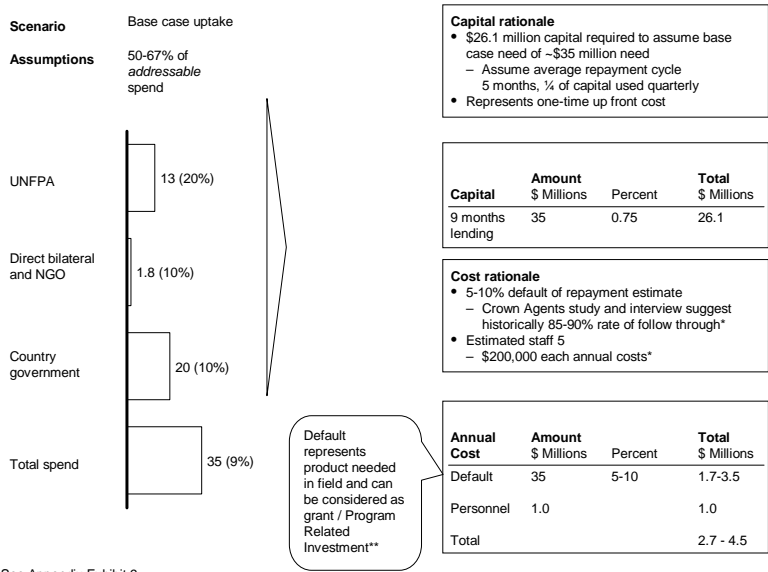
• Pledge guarantee's requirements are most appropriately matched by a commercial bank
 • Minimum volume guarantee's requirements are most closely matched by a multilateral institution
 • Independence criteria reduces appropriateness of development banks and the UNFPA as hosts

Source: Team analysis

9. FINANCIAL REQUIREMENTS AND IMPACT OF THE MECHANISM

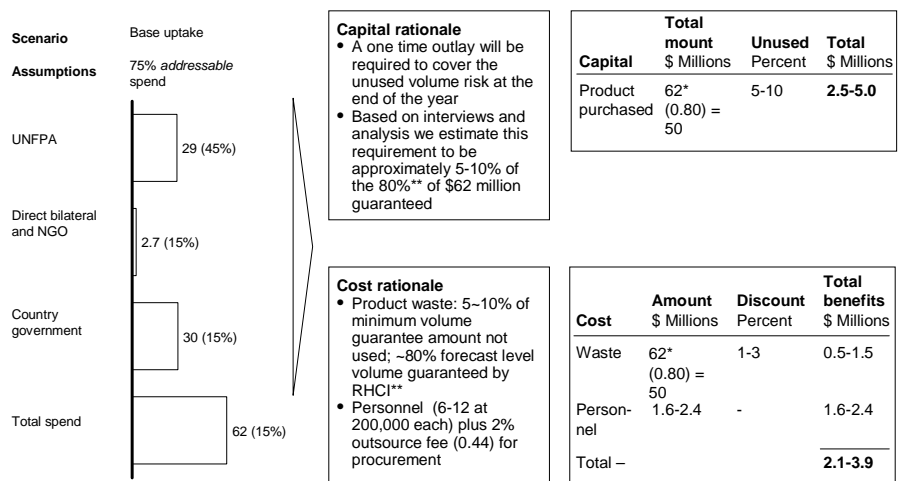
The cost of the pledge mechanism ranges from \$2.7-4.5 million per year of which \$1.7-3.5 million stem from estimated default on repayments and \$1 million is from personnel costs. The mechanism would also require a \$26 million capital outlay to initiate the mechanism, assuming the \$35 million capital need identified in the base case scenario, a 5 month average repayment cycle, and equal quarterly need (*Exhibit 9.1 and Appendix A*). This also assumes that defaults do not materially reduce the capital in any given period. An ideal model could be for donors to have an informal, or formal if legally feasible, agreement to replenish the fund if the pledge mechanism pays out on their pledges and if the donor or countries do not reimburse the pledge. This model would create favorable incentives for donors and countries.

9.1 PLEDGE GUARANTEE – CAPITAL AND ANNUAL COSTS () Percent of *total* annual commodity expenditure for segment



Assuming base case uptake, the cost of the minimum volume mechanism ranges from \$2.1-3.9 million, primarily driven by personnel costs of \$1.6-2.4 million with the remainder being waste of 20-30% of the 5-10% of unused product (\$0.5-\$1.5). The mechanism would also require \$2.5-5.0 million in capital outlay to initiate the mechanism to assume unused volume risk (*Exhibit 9.2*).

9.2 MINIMUM VOLUME GUARANTEE – COSTS AND CAPITAL () Percent of segment total spend



* Assumed ~75% of high case; See Appendix Exhibit 13

** For explanation data behind forecasting the minimum volume guarantee, see Appendix 14

Source: Team analysis

Combined the two mechanisms would provide a direct impact of \$3.8-11.6 million with costs of \$3.8-7.4 million and a capital outlay of ~\$26 million. Starting with UNFPA, on the other hand, would provide a direct impact of \$1.0-4.1 million with costs of \$0.9-1.6 million and a capital outlay of \$1.6-3.2 million (*Exhibit 9.3*).

While the savings generated by the mechanism benefit the field, the mechanisms themselves bear the cost. These annual and capital costs could potentially be reduced by charging interest on the mechanism transactions, establishing a line of credit from a bank that could provide the capital as part of a secured loan, or building in regular replenishments of capital from the multi-lateral and bilateral donor community.

Based on a qualitative and quantitative assessment of the two main services, the advisory group recommended a service which provided a minimum volume guarantee to UNFPA, based on the following rating (*Exhibit 9.4*):

Exhibit 9.4

ADVISORY GROUP ASSESSMENT* OF SERVICES RATED FROM 1-5 5 = Good

Average shown (range in parentheses)

1 = Bad

Service type	Impact			Feasibility			Average
	Solves priority issues	Down-stream impact	Aligns with field	Ease of use	Sustainable over time	Fits within system constraints	
① Pledge Guarantee	3.6 (3-5)	3.8 (3-4)	3.4 (3-4)	3.4 (2-5)	2.8 (2-4)	3.2 (2-4)	3.4
② Minimum volume guarantee	4 (3-5)	3.4 (3-5)	4 (3-5)	3.4 (2-5)	3.8 (2-5)	3.8 (2-5)	3.7
③ Min. volume guarantee – UNFPA only	3.8 (3-5)	3.4 (3-5)	4.4 (4-5)	4.2 (4-5)	4.4 (3-5)	4.6 (4-5)	4.1
④ Pledge and minimum volume guarantee combined	4.3 (3-5)	4.0 (4)	3.3 (3-4)	2.8 (2-3)	3.5 (2-4)	3.3 (2-4)	3.5

* Four out five members were surveyed
Source: Interviews; Team analysis

Similarly, the Advisory Group identified the best option as the combination of the pledge and minimum volume guarantee, to realize synergies between the two, with an initial focus on the minimum volume guarantee (*Exhibit 9.5*):

Exhibit 9.5

INITIAL DECISION ON GOING FORWARD WITH FINANCIAL MECHANISM

Options	Recommended	Rationale
Both pledge and minimum volume guarantee (start with minimum volume)	• Proposed option	<ul style="list-style-type: none"> • Solves both variability and subscale/suboptimal procurement issues • Synergy in operating costs (\$1 M)
Only minimum volume guarantee	• Second best	<ul style="list-style-type: none"> • Potentially high leverage action - return on investment (~60%) • Capital risk manageable by adjusting minimum levels • Win-win for manufacturers/buyers due to long-term commitments and resulting production efficiency • Integrates well with on-going efforts in field for non-OECD manufacturer qualification
Only pledge guarantee	• Third option	<ul style="list-style-type: none"> • Addresses upstream issue of funding variability • Need to believe “indirect impacts” on country planning and forecasting

10. IMPLEMENTATION ROADMAP

Prior to implementing the pledge and minimum volume guarantee service lines, three sets of decisions need to be made: 1) technically: assumptions about the financing mechanisms' operations need to be tested and verified (see Appendix C for details) and decisions must be made regarding which services should be offered and serving which markets 2) organizationally: a board, staff, and housing location need to be identified, and 3) tactically: donors and users have to be recruited and opt-in to the mechanism (*Exhibit 10.1*).

Exhibit 10.1

IMPLEMENTATION REQUIRES THREE MAIN SETS OF DECISIONS

Type of decisions	Activities required
Technical	<ul style="list-style-type: none"> • Test assumptions (eg. Donors will agree to sign an MOU with specific terms of repayment, forecasting across multiple agencies is feasible, manufacturers could aggregate orders across small, brand specific countries and still reduce costs, etc.) • Get buy-in of stakeholders • Decide on services offered • Decide on starting point and partners to include at launch
Organizational	<ul style="list-style-type: none"> • Build Board, staff, and key processes • Find a "home" for the mechanism
Tactical	<ul style="list-style-type: none"> • Launch website, communications, informational forms • Initiate leading and guaranteeing of contract

Source: Source

There are several considerations to keep in mind when choosing which service to launch first: (1) selecting what problems want to resolve; (2) assessing strategy to optimally manage capital and risk. The pledge guarantee, while addressing the primary issue of funding variability, requires the most up front capital and marketing. The minimum volume guarantee is easier to implement and maintains an impact to cost ratio that is 70% greater than the pledge guarantee, yet does not address core funding variability issues. The capital needs and costs, however, as well as the actual risk the financing mechanism assumes can be managed by making choices about who can use the financing mechanism, for what products/volumes, and under what conditions (e.g., degree of certainty on forecast or pledge)

Once those decisions have been made, a three stage process begins. The first stage involves aligning key stakeholders such as the RHSC, lead funders of RH, and country Ministries of Health. The second stage involves acquiring a management team and enough capital to execute these services. The third stage involves launching a pilot service to test core processes, legal and technical issues, and contracts with manufacturers. These three stages could occur within a nine month period, followed by a scale-up period when additional users, regions, or services are added (*Exhibit 10.2*).

Exhibit 10.2
OVERVIEW OF IMPLEMENTATION -- PLEDGE AND MINIMUM VOLUME

	Align stakeholders	Acquire management team/develop core processes	Launch	Scale
Select actions	<ul style="list-style-type: none"> Gather additional facts to validate approach and core services Identify lead initial funder(s) Confirm buy-in from key RH commodity donors Develop communication strategy Work with country MoH to create buy-in Establish Board 	<ul style="list-style-type: none"> Board launches staff search Hire or contract for Director and management team (if relevant) Raise Capital Develop Risk Management Model Develop Recipient Country Marketing/Ownership Strategy Complete initial forecast Develop MOU and hold donor forum to explain mechanism 	<ul style="list-style-type: none"> Develop Minimum Volume contracts with manufacturers Launch service via website / phone Begin pledge financing Track and fulfill volume guarantees Receive and fulfill first pledge requests 	<ul style="list-style-type: none"> Grow user base Expand manufacturer base Continue to create tailored incentives for country ownership Establish revised 3-5 year plan
Milestone	<ul style="list-style-type: none"> Finalize business plan Confirm funding First board meeting 	<ul style="list-style-type: none"> Business system developed Initial staff in place Funding in place 	<ul style="list-style-type: none"> Services launched 	<ul style="list-style-type: none"> Milestones would include expanding volume covered and relative pricing available
Resource requirements	<ul style="list-style-type: none"> Key individual to champion process Admin/support 	<ul style="list-style-type: none"> Initial team (2-3) to develop working model and raise initial capital 	<ul style="list-style-type: none"> Expand operating team (5-10) 	<ul style="list-style-type: none"> Expand operating team and capital based on need

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11. Conclusion

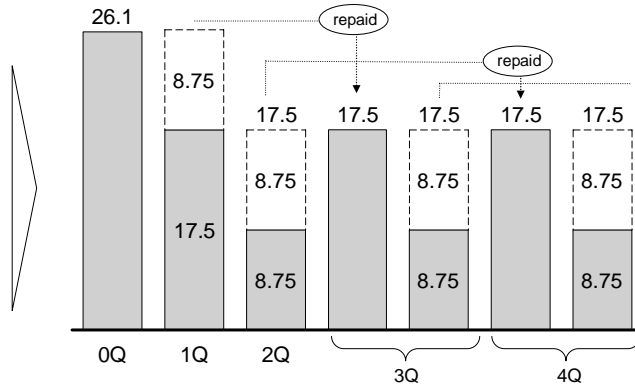
Implementing the pledge guarantee and minimum volume guarantee service will generate financial savings, help resolve downstream issues by enabling long-term planning and forecasting and reducing stockouts and emergency shipments, and will have the greatest impact on individual Group I, donor dependent, countries that typically suffer from high levels of funding variability, highly fragmented procurement, and the lowest prevalence rates. While the financial impacts of these services are somewhat limited, at least in the short term, the immediate indirect

impacts are substantial, warranting further pursuit by the Reproductive Health Supplies Coalition and the establishment of a pilot program, driven initially by leadership from the Systems Strengthening Working Group.

Appendix A: Financial projections

GUARANTEEING \$35 MILLION ANNUALLY REQUIRES \$26.1
IN CAPITAL ASSUMING QUARTERLY LENDING AND 150-
DAY REPAYMENT
 \$ Millions

- \$34.8 distributed over 4 quarters
- \$8.75M (34.8/4) needed each quarter
- With 150 day repayment terms, 3 quarters require coverage
- $(3) \times \$8.75 = \26.1^*



* \$26.1M needed only if mechanism does not borrow externally. Mechanism could cover its \$8.75M in quarterly lending with \$10 - \$17M in capital, depending on repayment reliability, and could borrow additional \$10M to get through first year if uptake occurred as expected.
 Source: Team Analysis

Appendix B: Interviewees, sources reviewed and key analyses

List of interviewees

Experts/ Donors

Institution	Interviewee name
JSI	Carolyn Hart Mimi Whitehouse
USAID	Alan Bornbusch Mark Riling
UNFPA	Joe Abraham Nana Essah Ben Light David Smith Jagdish Upadhyay
KfW	Wolfgang Bichmann
Johns Hopkins University	Duff Gillespie
IPPF	Lester Chinery
Crown Agent	Hilary Vaughn

Manufacturers

Manufacturer	Interviewee name
UNIDUS	Bong Sam Lee
Famycare	Venkatesh Iyer
Schering Africa	Mario Kossmann
Organon	Enrico Liggeri
Pfizer	Frans van Birgelen
Wyeth	Eli Alaluf

Country reps

Institution	Interviewee name
JSI/ Deliver – Zimbabwe	David Alt
UNFPA – Zimbabwe	Bruce Campbell
UNFPA – Angola	Andre Mayouya
UNFPA – Mexico	Arie Hoekman
UNFPA – Ghana	M. Kane
UNFPA – Yemen	Alexander Ilyin
Ministry of Health – Ethiopia	Tessanesh Belay Tessaye Berhanu
Population Secretariat – Uganda	Angela Ankol
Ministry of Finance – Uganda	Rogers Enyaku
Deliver – Nigeria	Chuck Lerman
Ministry of Health – Kenya	Josephine Kibaru
JSI – Bangladesh, Nepal, and Pakistan	Shyam Lama
Ministry of Health – Malawi	Jane Namasasu

Appendix C: Assumptions

In Exhibits 1 and 2, the major assumptions used for both the pledge and minimum volume guarantee services are outlined.

Exhibit 1

KEY ASSUMPTIONS – PLEDGE GUARANTEE

Assumptions	Suggested next steps for further validation
<ol style="list-style-type: none"> 1) Donors will agree to sign an MOU with specific terms of repayment 2) After a pledge, a donor will directly repay the mechanism from country-earmarked funds 3) Donor disbursements to UNFPA are reliable enough that creating a pledge guarantee to back them is sustainable 4) ~10% of public sector funding would be addressed by a guarantee mechanism 	<ul style="list-style-type: none"> • After validation of overall objectives/services with broader SSWG and RHSC groups, test both needs for critical mass of participants and key assumptions by sending out a letter to confirm (non-binding) interest to participate • Letter to include: <ul style="list-style-type: none"> – Confirmation of interest to participate in mechanism – Ability to sign MOU – Ability to allow countries to use mechanism funding for products – Agreement to repay – Willingness to pay fees or interest (specifics enclosed in letter or a maximum indicated) • Reconfirm that USAID and PSI would not benefit from mechanism, and that assuming less than 40% of delays are due to funding variability is reasonable

Exhibit 2

KEY ASSUMPTIONS – MINIMUM VOLUME GUARANTEE

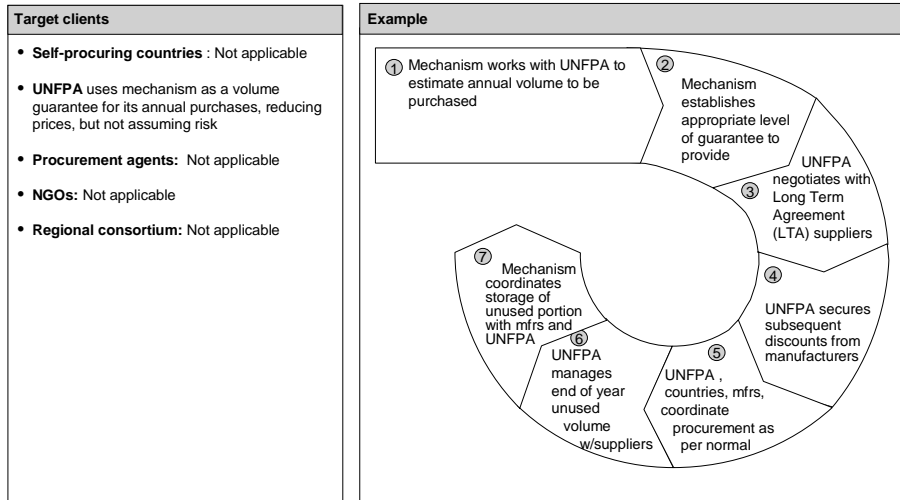
Assumptions	Suggested next steps for further validation
<ol style="list-style-type: none"> 1) Forecasting from different agencies is accurate enough to facilitate minimum volume guarantee (e.g., UNFPA; countries/regional initiatives; procurement agencies; NGOs; other) 2) Based on interviews and analysis of UNFPA database, manufacturers are willing to offer price discounts (up to 16%) at volumes identified; similar discounts would be realized by non-UNFPA orders 3) Country with small orders for unique brands will still be able to benefit from guarantee because individual manufacturers cover multiple brands and are willing to accept aggregate level volume guarantees 4) Products manufactured through minimum volume guarantee would still meet shelf life requirements 5) Countries using IDA funds will be able to use contracts established through minimum volume guarantee 	<ul style="list-style-type: none"> • Work with SSWG to get forecast data and measure error for all potential applicants. Verify current level of forecast accuracy and set minimum bar appropriately (start low) • <i>Note: Mechanism business case currently assumes up to 30% forecast error, but design is flexible to adjust to increased error</i> • WAHO research indicated greater discount from pooling non-UNFPA orders (average 28%); conduct country visits / survey to confirm current prices paid and potential discount • To further validate manufacturer discounts and volumes, send initial letter of terms and solicit intent to participate from manufacturers • Include in specifications/terms: <ul style="list-style-type: none"> – Brands expected – Volumes expected – Order times / cycles expected – Potential for product to remain unused for 9-12 months – Request for most current rate cards, and any shelf life concerns • Confirm minimum volume guarantee will meet ICB / World Bank guidelines

Appendix D: Minimum volume mechanism estimates for UNFPA only

Exhibit 1

MINIMUM VOLUME GUARANTEE OVERVIEW – UNFPA ONLY

Value proposition: Reduces product cost and total lead times by backing UNFPA procurement with a minimum volume guarantee
Core functions: Works with UNFPA forecasting to assess suitable, risk appropriate level of demand to guarantee. Does not develop pre-negotiated contracts or work closely with manufacturers; simply guarantees volumes on behalf of UNFPA to select manufacturers

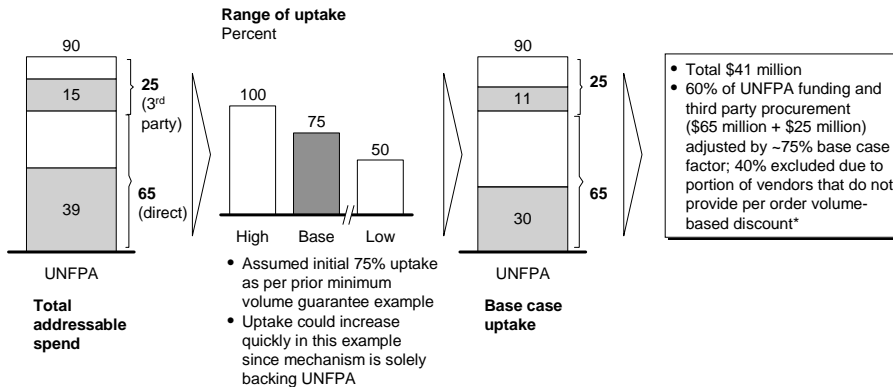


* Mechanism should negotiate with UNFPA to waive or reduce current 5% procurement charge on central contract orders
 Source: Interviews; team analysis

Exhibit 2

MINIMUM VOLUME GUARANTEE FOR UNFPA – BASE CASE UPTAKE ESTIMATE: \$41 MILLION

█ Uptake assumed in base case

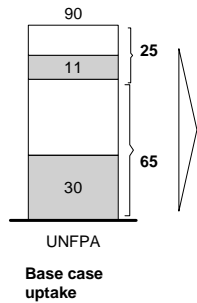


* See Appendix Exhibit 11 and 12
 Source: Interviews; team analysis

Exhibit 3

MINIMUM VOLUME GUARANTEE WITH UNFPA – IMPACT
ESTIMATE: \$1.0-4.1 MILLION

Uptake assumed in base case



Direct impact

- Reduced product cost
- Reduced lead times

Indirect impact

- More product readily available for acute situations as needed
- Has proportionally higher impact on Group I

Impact rationale

- Based on interviews and analysis of UNFPA purchases, we estimated that of total purchases, 60% suboptimal, 20% subscale
 - 20% of \$90M = \$18M subscale (assumed captured by mechanism as part of 75% uptake) and maintains 6-11% discount
 - 60% of \$90M = \$54M sub-optimal (of which only \$41M is part of base case uptake- \$11M 3rd party, \$30M direct). Therefore \$41M open to 0-5% discount

Direct impact*	Amount \$ Millions	Discount Percent	Total \$ Millions
Subscale volume**	18	6-11	1.0-2.0
Sub-optimal volume	41	0-5	0-2.0
Total – UNFPA only			1.0-4.1

* See Appendix Exhibit 16 and 17

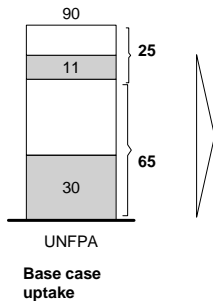
** For rationale of why minimum volume guarantee can work in a multiple brand sector, see Appendix Exhibit 3

Source: Team analysis

Exhibit 4

MINIMUM VOLUME GUARANTEE WITH UNFPA – CAPITAL AND COST

Uptake assumed in base case



Capital rationale*

- Mechanism would guarantee ~80% of the expected volume; 5–10% of guaranteed order expected to be purchased by the mechanism due to non use
- 10–30% of that purchased amount would not be resold and wasted
- Base case Administration costs cover forecasting assistance, financing, and program management

Capital	Amount \$ Millions	Percent	Total \$ Millions
Product purchased	41 x 80% = 33	5-10	1.6-3.2

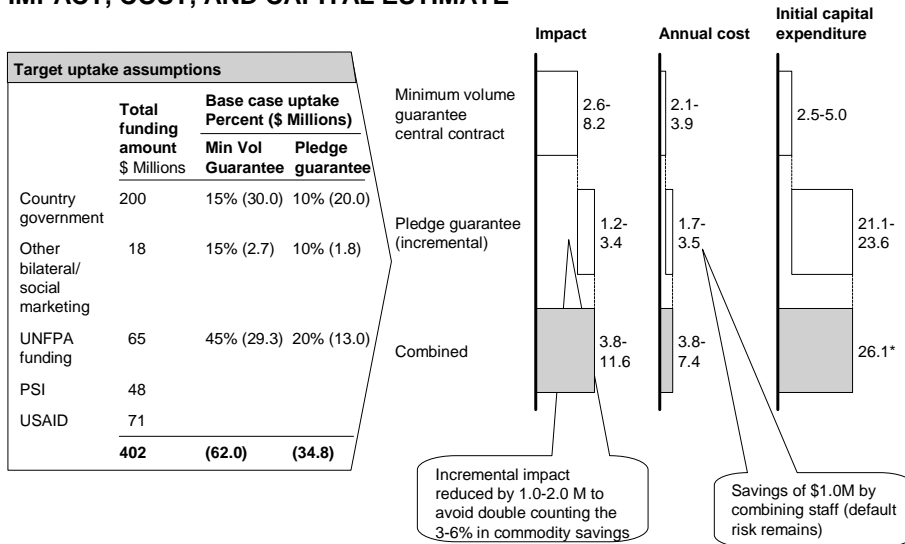
Cost rationale*

- Manage risk by not guaranteeing 100% of expected volume (~80%)
- Some of the contract volume will not be used and will have to be purchased, rough assumption allowing up to ~30% lower than expected level volume used for safety net (~80% guarantee, 5–10% potential purchase most of which can be used in following year)

Cost	Amount \$ Millions	Percent	Total \$ Millions
Waste*	41 x 80% = 33	10-30	0.3-1.0
Admin Costs	0.6		0.6
Total			0.9-1.6

* See Appendix Exhibits 17 and 18 for more details
 Source: Team analysis

MINIMUM VOLUME GUARANTEE AND PLEDGE GUARANTEE – UPTAKE, IMPACT, COST, AND CAPITAL ESTIMATE



* Assumes start-up capital for pledge guarantee will cover capital for minimum volume guarantee (only needed by end of year 1 / year 2 at earliest)

Source: Team analysis

Appendix E: Expanding the pool of supplier from non-OECD countries

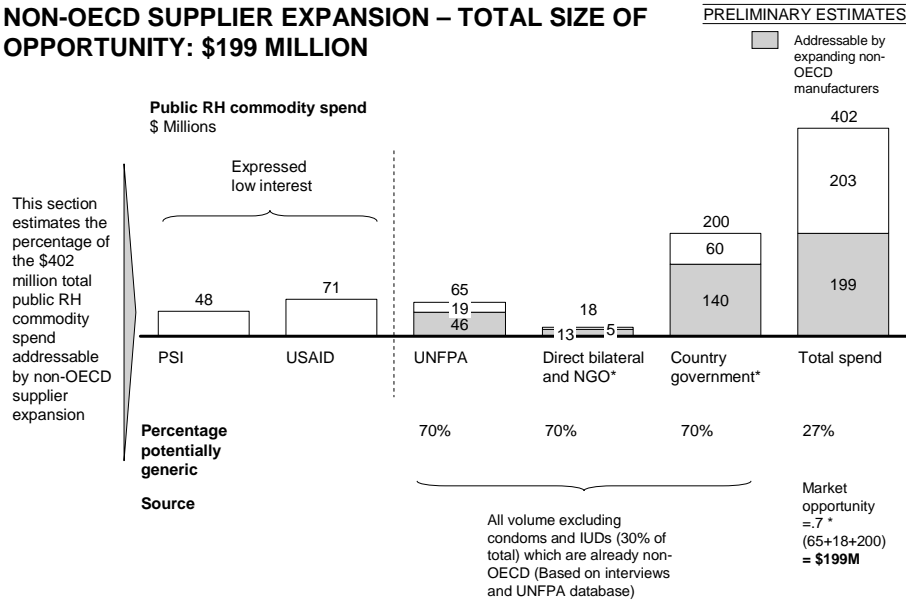
As part of the research for the guarantee mechanisms, we identified that substantial savings were feasible by increasing the number of non-OECD reproductive health commodity suppliers. The primary benefits are a reduction in commodity costs, up to 50% depending on current practices. A major hurdle to increasing the number of non – OECD suppliers appears to be the scarcity of capital and technical support to become pre qualified which is exacerbated by the lack of a guarantee that their products will be sold once a manufacturer makes the investment to become pre-qualified.

While expanding the supplier pool was outside the scope of this project, it is relevant because the minimum volume guarantee provides an excellent vehicle to expand the supply base to include non-OECD manufacturers (where qualified) and could highlight where value may be gained by assisting suppliers to overcome quality and other technical hurdles.

As a foundation for further research in this area, we have outlined the potential impact of expanding the supplier pool below.

Exhibit 1

NON-OECD SUPPLIER EXPANSION – TOTAL SIZE OF OPPORTUNITY: \$199 MILLION

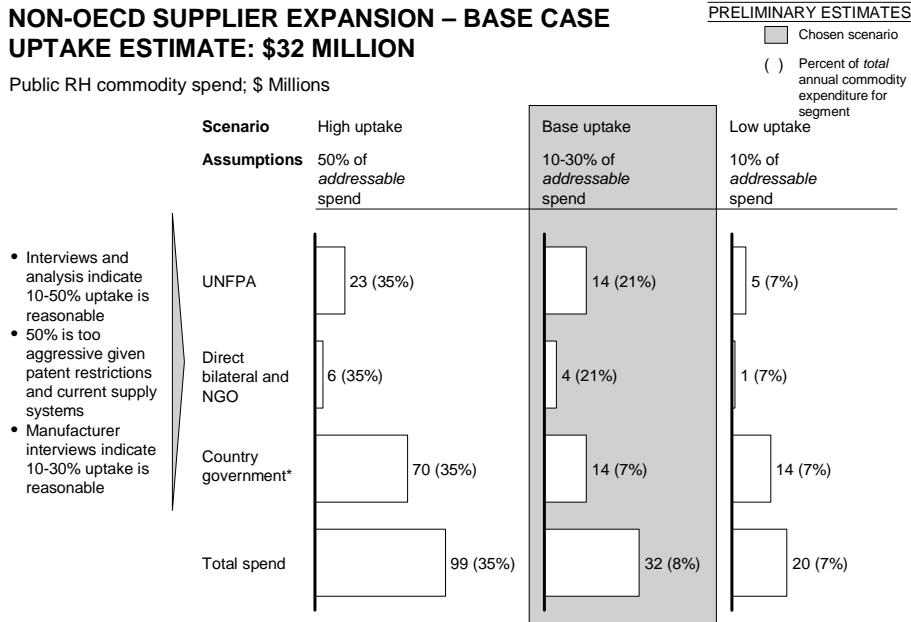


* Total country government and direct bilateral and NGO spend estimates derived from multiple sources (see Appendix Exhibit 5 for detailed estimate); Country government includes portion provided by donors through budget support
Source: PSI; USAID; UNFPA; Interviews; Team analysis

Exhibit 2

NON-OECD SUPPLIER EXPANSION – BASE CASE UPTAKE ESTIMATE: \$32 MILLION

Public RH commodity spend; \$ Millions

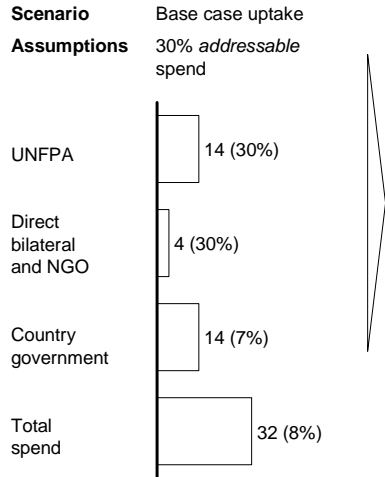


* Low uptake based on fragmentation and lack of coordinating mechanism to channel spend and pre-qualified vendors
Source: Interviews; Team analysis

**NON-OECD SUPPLIER EXPANSION –
IMPACT ESTIMATE: \$6-9 MILLION**

PRELIMINARY ESTIMATES

() Percent of total annual commodity expenditure for segment



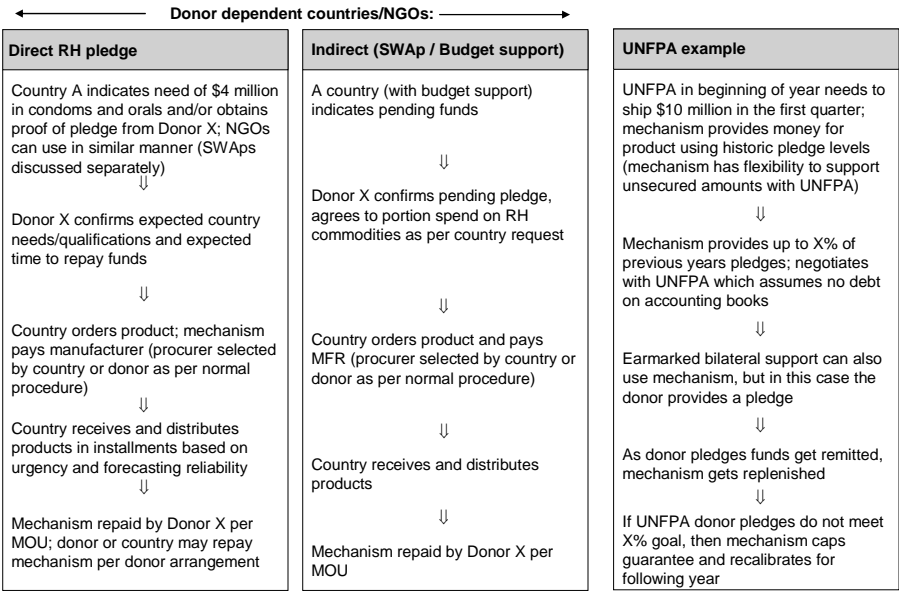
Rationale

- Of potential \$32 million uptake, 20-30% discount* can be achieved by switching to generics (\$32 Million * 20-30% = \$6-9 Million)

* See Appendix Exhibit 19 for details on price discount from switching to generics
Source: Interviews; Team analysis

Appendix F: Application of pledge mechanism to client groups

PLEDGE GUARANTEE MECHANISM SERVICES MULTIPLE CLIENT TYPES



Source: Team analysis

Appendix G: Application of minimum volume guarantee mechanism to client groups

Exhibit 1

MINIMUM VOLUME GUARANTEE COULD PROVIDE SERVICES TO SMALL, SELF PROCURING COUNTRIES, NGOs, AND UNFPA . . .

Self-procuring countries/NGOs	UNFPA example
Mechanism works with the target countries and develops annual estimates and guarantees minimum volumes to manufacturers*	Mechanism works with UNFPA and its manufacturers to guarantee minimum volumes (can be yearly or spread over multiple years to account for variance)
⇓	⇓
Countries use pre-negotiated contracts based on minimum volume guarantees; NGOs can use as well	Manufacturers are able to start production earlier/have confidence in volume, and so provide greater discount to UNFPA on price
⇓	⇓
Mechanism or country works with procurement agents to complete ordering	UNFPA places orders as usual
⇓	⇓
Countries pay manufacturers directly, mechanism tracks orders against guarantee to re-allocate as needed	Mechanism covers unused volumes or carries to subsequent years
⇓	
If product remains unpurchased at end of year, mech. Assumes cost and stock is rolled over and stored with manufacturer (agreement to store % of contract should be agreed with manufacturer)	

* Multiple manufacturers used; manufacturer's ability to produce across brands enables guarantee to work without constraining brand choice. See Appendix Exhibit 3 for further details

Source: Interviews; team analysis

Exhibit 2

. . . AS WELL AS REGIONAL PROCUREMENT GROUPS OR LARGE DECENTRALIZED COUNTRIES

Other pre-arranged procurement Groups (Regions, Crown Agents)	Decentralized / self-funded country
Mechanism can work with other existing groups (WAHO, East, Central, and Southern African Health Community, Crown Agents) and guarantee aggregated volumes to develop lower costs	<i>Assumes country is also using pledge guarantee</i> Country's central MOH (eg. Mexico) contacts mechanism to request product, as cash is not available to states to buy product due to internal budgeting delays. MOF approves request
⇓	⇓
Countries in regions contract directly with selected pre-qualified manufacturers to place orders	Mechanism lends to Mexico, in the form of RH commodities, without a proof of donor pledge. Extends 180 day credit to MOF
⇓	⇓
Mechanism covers unused volumes or carries to subsequent years	If minimum volume guarantee service is also in operation, mechanism requests that states must use mechanism price for all products for which that price is available, aggregating state buying for lower price
	⇓
	States order directly and receive products; avoiding stockouts, and if using minimum volume contract, increasing the amount of RH commodity they are able to buy
	⇓
	Once budget is allocated, MOH repays mechanism (before funds are sent to states) within 180 days, failure to do so prohibits further use of the mechanism

Source: Country rep / MOH Interviews; team analysis

Contacts

Questions on the content of this report can be directed to the Advisory Board or analytic advisors (Michael Conway, michael_conway@mckinsey.com; Stephen Linaweaver, stephen_linaweaver@mckinsey.com).