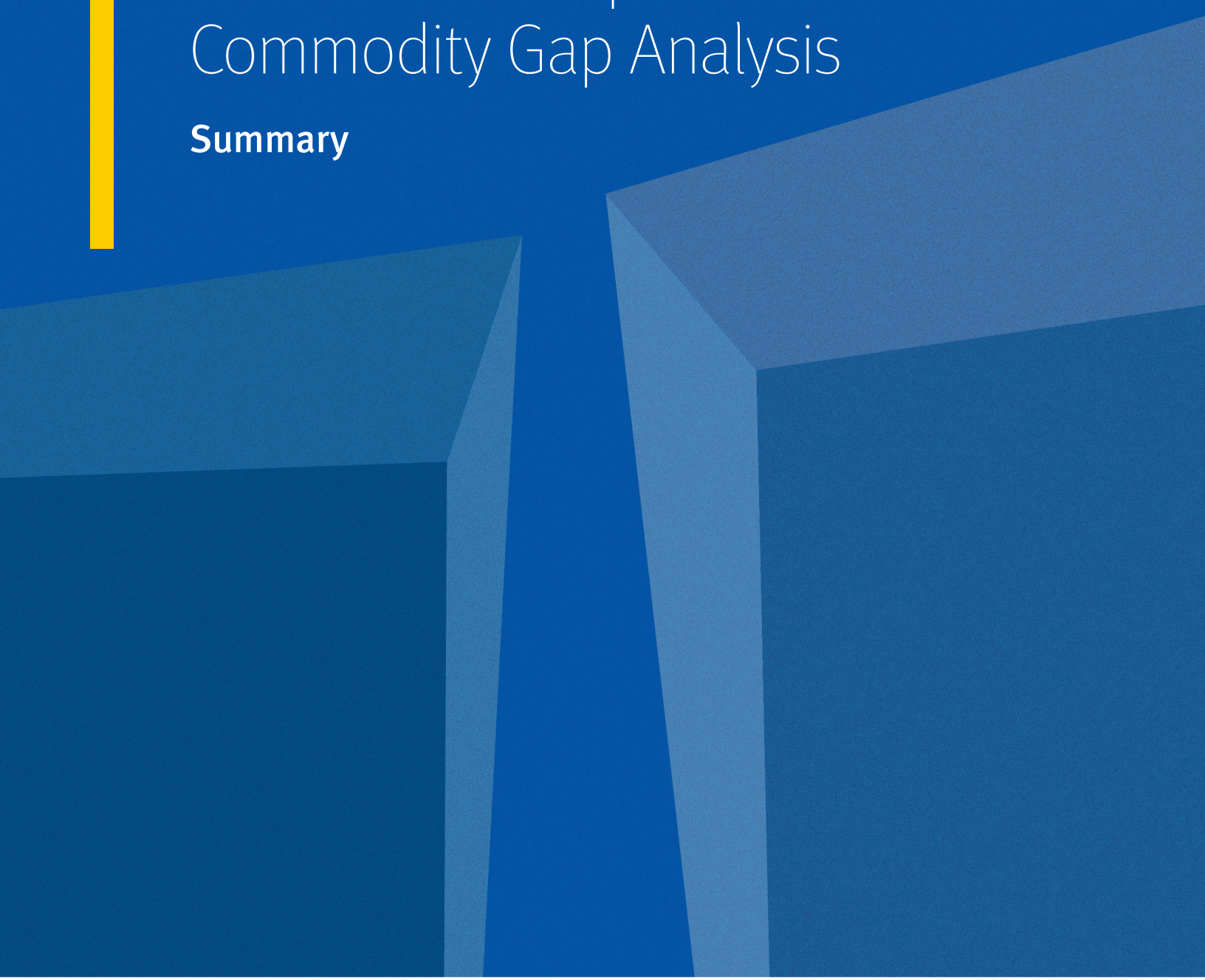
NOVEMBER 2016

Global Contraceptive Commodity Gap Analysis

Summary



Reproductive Health
SUPPLIES COALITION

Acknowledgements

The Reproductive Health Supplies Coalition extends its thanks to the authors of this Global Contraceptive Commodity Gap Analysis: Nina Miller, Michelle Weinberger, Emily Sonneveldt, Mindy Scibilia, Maggie Murphy, and Alexis Heaton. We also express our gratitude to the Analysis Advisory Committee and the many partners and stakeholders, listed on pages 11 and 12, who contributed their time, opinions, and data to shape the contents of this report. Of special note is FP2020, which generously contributed their 2016 core indicator estimates in advance of the publication of their 2016 Annual Report. Finally, we thank Coalition Secretariat member Lucian Alexe for his skillful design and layout of this publication.

Global Contraceptive Commodity Gap Analysis

- **What will it take to ensure commodity security for the unprecedented number of women who will rely on modern methods of contraception in the year 2020?**
- **As we move closer to achieving the FP2020 goal, can we quantify the gap between the amount of contraceptive supplies currently consumed and the quantities that will be needed in 2020?**
- **How much is currently spent on contraceptive supplies, and how much additional spending will be required to keep pace with demand?**
- **Do international donors, governments, and the private sector contribute equal shares of total spending on contraceptive supplies?**
- **If donors fail to increase, or at least maintain, their spending on contraceptive supplies, what additional burden will be placed on countries' domestic resources and on individuals?**

The political commitment to expanding access to family planning has never been so strong or so widespread. Universal access to sexual and reproductive health care services, including for family planning, is one of the targets of the Social Development Goals. Ninety-three governments, donors, civil society organizations, and other partners have made formal commitments to the FP2020 initiative.[1]

In this environment it is imperative that we address these critical questions. We cannot expand access to family planning without producing and providing larger quantities of high quality contraceptive supplies that will meet women's diverse needs and preferences.

None of the questions lend themselves to simple answers. Fortunately, our community has developed a rich array of methodologies and data sources. Unfortunately, they can lead to a proliferation of seemingly conflicting findings and confusing, or even contradictory, messages.

Therefore, in taking up the challenge of projecting and quantifying the growing demand for contraceptive supplies, we turned to the convening power of the Reproductive Health Supplies Coalition (RHSC) to think strategically about the value these methodologies offer and the ways they may be sequenced or juxtaposed to provide greater insights. We engaged in wide ranging consultations with 43 donors, manufacturers, advocates, and technical experts, representing 24 agencies and organizations.

The result is RHSC's groundbreaking **Global Contraceptive Commodity Gap Analysis (CGA)**. Our analysis brings together **Track20's**[2] innovative approach to measuring the number of contraceptive users[3] and modeling changes in method mix; contraceptive prevalence projections from the **United Nations Population Division**[4]; public sector product price research by the **Guttmacher Institute**[5]; donor spending data collected by **UNFPA**[6] and **NIDI**[7]; **Avenir Health's**[8] approach to measuring total spending on contraceptive supplies; and insights from an analysis of country-produced quantification reports provided by **CHAI**[9] and **JSI**[10].

The findings we present comprise individual estimates[11] for **135 low- and middle-income countries**.[12] In addition, we highlight important findings for the subset of **69 FP2020 focus countries.** To ensure that our analysis uses the most up-to-date information available, FP2020 shared its 2016 data with us in advance of the publication of its annual report.[13]

The wealth of expertise in the global family planning community, the prospect of new analyses and data that will become available in the coming months, the limitations of what we were able to include in this report, and, most importantly, the urgent need to ensure contraceptive commodity security, all point to the importance of the CGA as an annual exercise.

What will it take to ensure commodity security for the unprecedented number of women who will rely on modern methods of contraception[14] in the year 2020? What is the gap between the amount of supplies currently consumed and the quantities that will be needed in 2020?

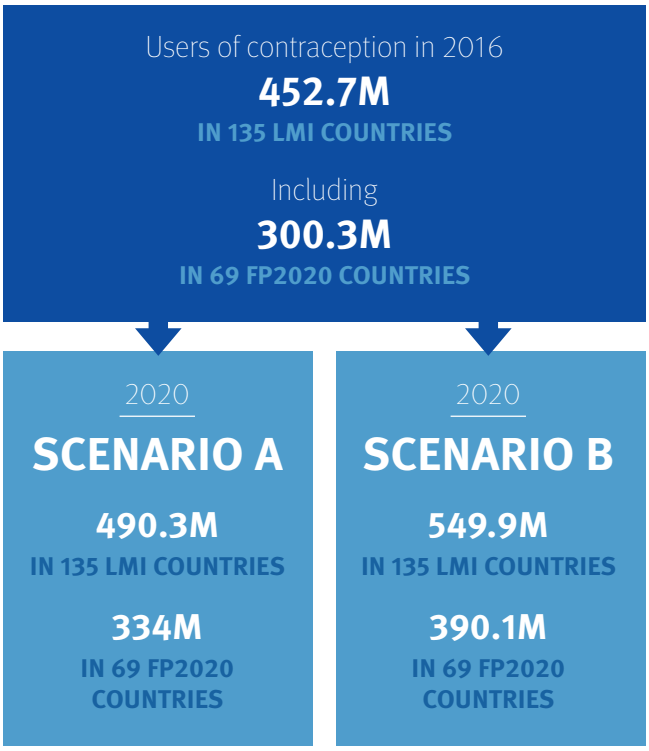
The answers to these questions depend on the assumptions one makes about growth in the number of contraceptive users and changes in method mix between now and 2020.

We posit **two scenarios** that take us from 2016 to the year 2020.

Scenario A assumes that each country will persist in its current growth pattern. **Scenario B** envisions the achievement of FP2020's flagship goal, namely 120 million more users of contraception in 2020 than there were in 2012.[15] It also includes increases in contraceptive use across the other 66 countries in our analysis.

Our calculation of the quantity and cost of the contraceptive supplies consumed by women is based on the number of users of each method. Interviews with individual women generate the data on contraceptive use collected by DHS[16], MICs[17], PMA2020[18] and national and subnational health, socio-economic, and fertility surveys. All of these sources contribute to our estimates of the number of users of each method.

We also know that over time, changes in method preferences and availability shift. Therefore, both scenarios build in annual changes to method mix that rely on patterns observed from these same surveys. The graphs on the following page show the change in the number of users of each method over time under Scenarios A and B.



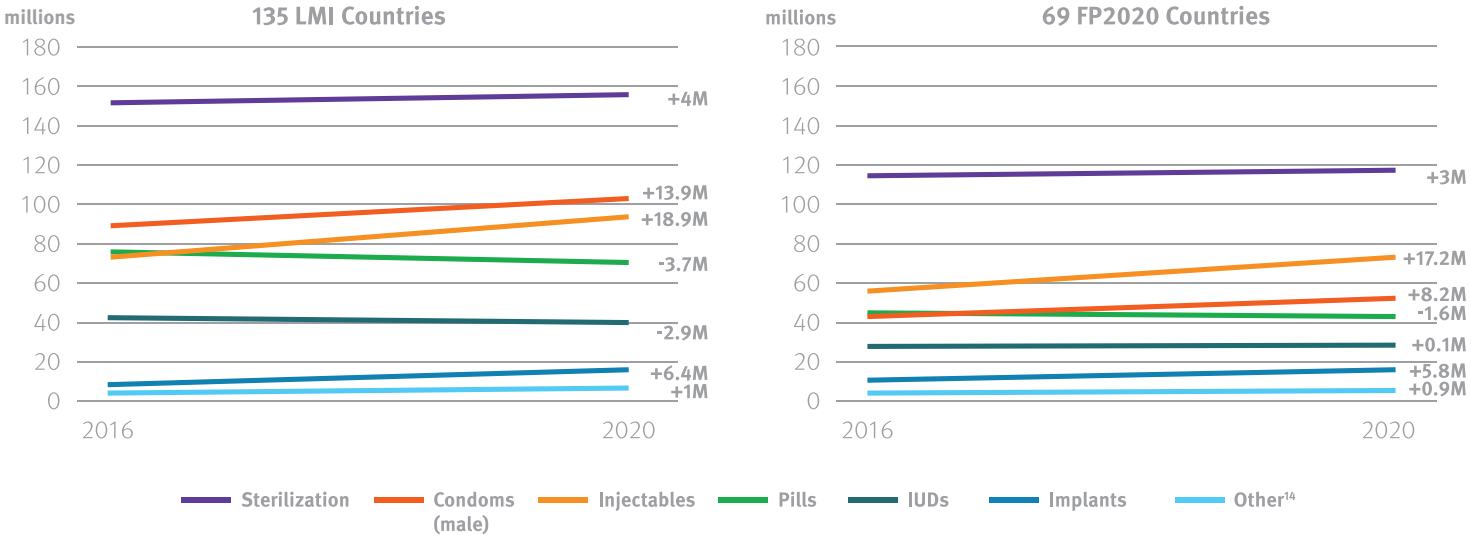
There are currently **452.7 million** women who rely on modern methods of contraception living in the 135 LMI countries. They include both married and unmarried women, served by both the public and the private sectors.

The total number of contraceptive users increases over time, but not all methods gain equally and in fact in some scenarios suggest relative declines in use.

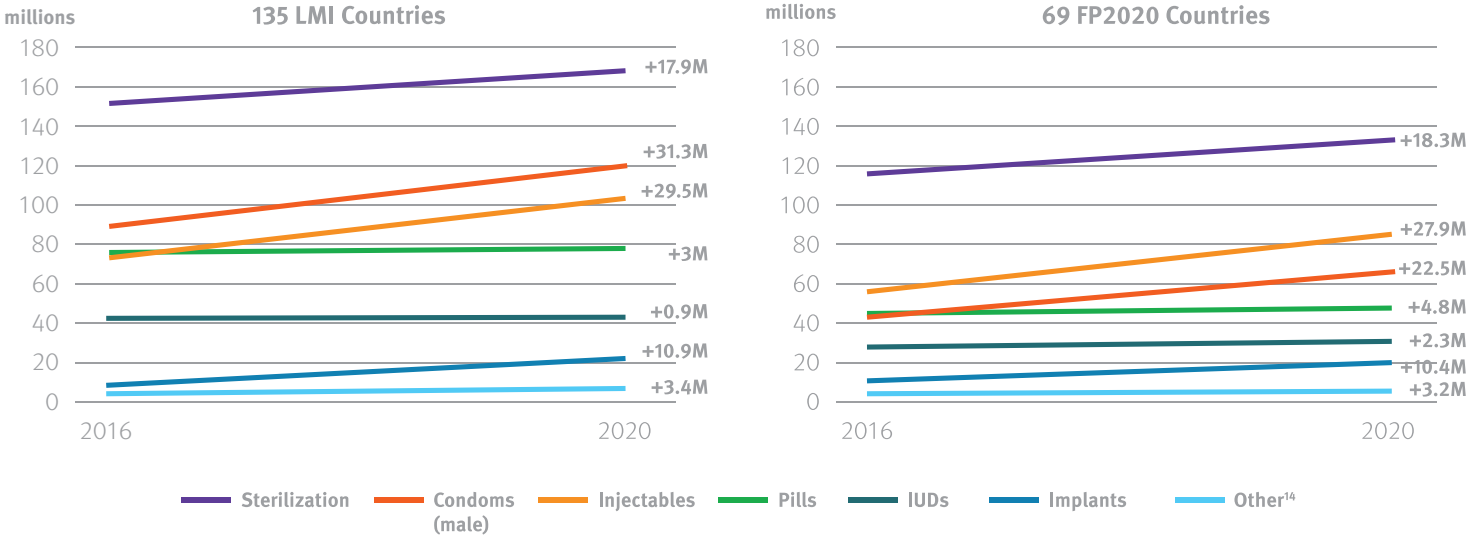
Each scenario projects changes in method mix for the set of 135 LMI countries and subset of 69 FP2020 focus countries.

SHIFT IN METHOD MIX FROM 2016 TO 2020

SCENARIO A



SCENARIO B



The amount of supplies required by women is a starting point for governments to forecast the need for products. The forecast is adjusted to account for plans to expand or contract services, policy changes that increase access or introduce new methods, or the introduction of new products. The forecast is then used to develop a procurement plan, taking into account the quantity required to fill supply pipelines and maintain adequate inventory levels, from central warehouses to individual service delivery points. The procurement plan also takes into account the amount of supplies already present or on order, as well as wastage or "leakage" of supplies at various levels. Constraints on funding, price incentives, and preferences by donors or the government itself for particular methods or products may also influence a government's determination of what supplies it will purchase.

To help distinguish between these very different concepts, we define the amount of supplies that individuals can "consume" as the **consumption quantity**, and its cost as the **consumption cost**. We refer to the amount of supplies that countries request as the **procurement quantity**, and its cost as the **procurement cost**.

We used established methodologies to calculate the quantity of contraceptive commodities and associated clinical supplies that women will consume on an annual basis. We multiplied these quantities by product prices to determine the total cost of the supplies.[19]

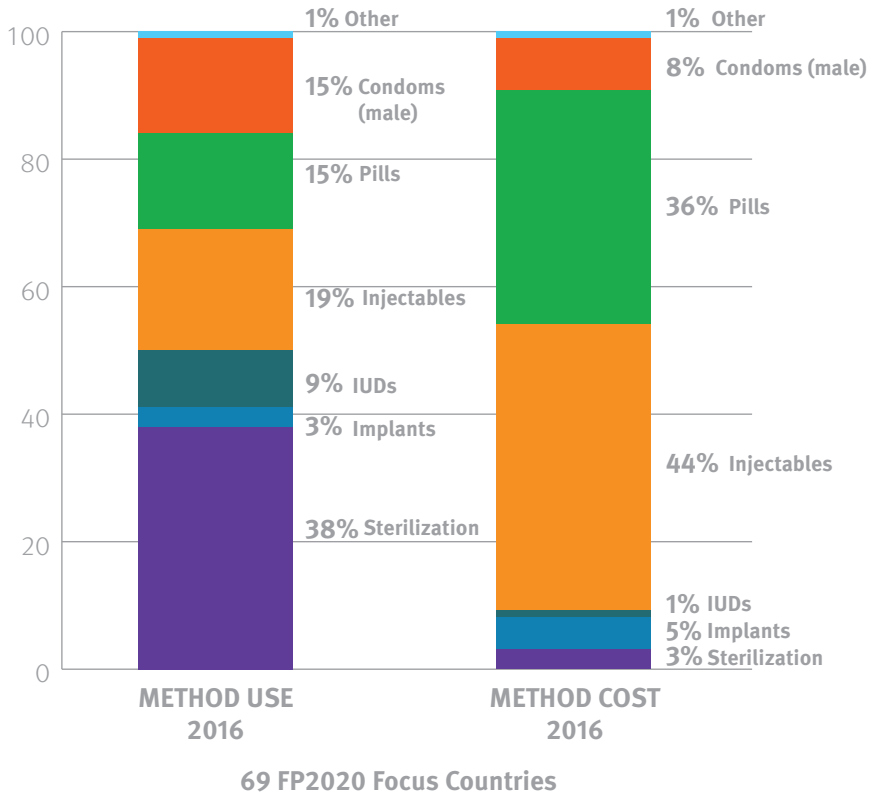
In 2016, the total cost of all supplies consumed by users of contraception in the 135 LMI countries is **$1.352 billion**.

If current growth patterns continue to 2020, as anticipated under Scenario A, this cost will increase by **$173 million** to reach **$1.525 billion**.

METHOD MIX VS RELATIVE CONSUMPTION COST

Because of cost differences and the variable duration of protection, the relative contribution of any single method to the total method mix does not equate with its relative contribution to total costs.

For example, in the adjacent figure, the left column shows the current (2016) contraceptive method mix among the 69 FP2020 countries. In the right column, we show what that mix equates to in terms of relative cost. Note that while injectables make up only 19 percent of the total method mix, they account for 44 percent of the total spend.



How much is currently spent on contraceptive supplies, and how much additional spending will be required to keep pace with demand? Do international donors, governments, and the private sector contribute equal shares of total spending on contraceptive supplies?

To address these questions, we produced an estimate of total spending on supplies across the 135 LMI countries, and within that, spending amongst the subset of 69 FP2020 countries.[20] We divide the amount spent across three categories: public sector spending by **donors**[21], public sector spending by **governments**[22], and **private sector** spending[23].

Public sector spending by donors captures direct spending on supplies, monetary contributions used to underwrite supply procurement, in–kind contributions of supplies, basket funds provided by donors and used by governments to procure supplies, and World Bank loan funds used to procure supplies. Public sector spending by governments is comprised of spending by the governments of the 135 LMI countries using internally generated revenue. Private sector spending consists mainly of out-of-pocket spending by individuals purchasing their own supplies, and a smaller amount representing employer-provided health services. Data from NIDI informed this category, and where gaps in data were present, we inferred private sector spending by extracting from the DHS and other household surveys the number of users of each method of contraception who indicated they received services and supplies from a private sector provider. The quantity of supplies these users would consume in a year was then costed using commodity prices appropriate to each method in each country.

Our spending baseline is set for 2014, since that is the most recent year for which we have sufficient data.

In 2014, the 135 LMI countries saw donors contribute **25%** of spending on supplies, while governments (using internally generated revenue) contributed 17% and the private sector 58%. In the same year, the 69 FP2020 focus countries saw donors contribute 30%, governments 15%, and the private sector 54% of spending on supplies.

To calculate the amount of additional funding for supplies required under Scenarios A and B, we compared the amount spent in 2014[24] to our estimated consumption cost of supplies for each year from 2016 to 2020[25]. By maintaining the percentages of total spending attributed to each type of spender, we estimate the required additional funding from each spending source.

If the FP2020 goal is achieved, 390.1 million users of contraception living in 69 focus countries will consume supplies costing a total of **$1.259 billion**.

This is **$437.4 million** more than was spent on supplies in the 69 countries in 2014.

In 2014, **$1.203 billion** was spent on contraceptive supplies across the 135 LMI countries.

In the 69 FP2020 focus countries, the total spent on supplies was **$821.8 million**.

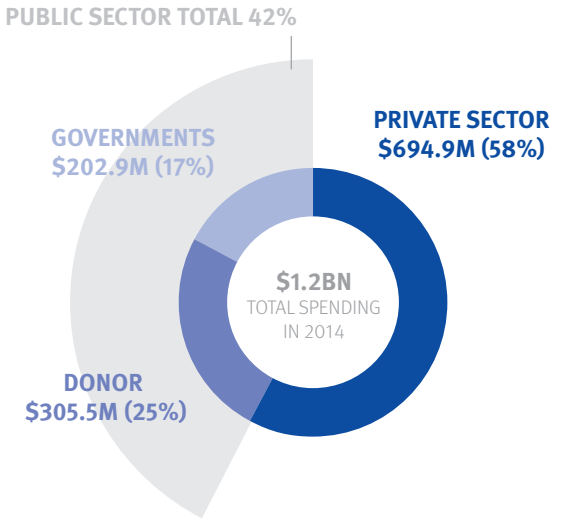
The figures on the next page look at the financial consequences of Scenario A and B for the 135 LMI countries and 69 FP2020 focus countries.

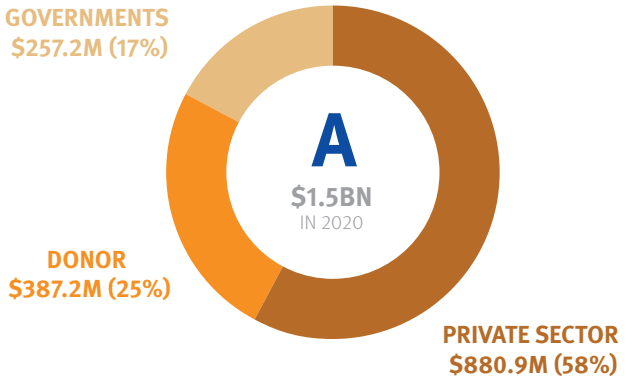
The blue pie chart on the left represents total spending on supplies in 2014, divided by each type of spender. The pie charts to the right represent the consumption costs in 2020 under Scenario A and Scenario B. They show what each spender would need to contribute in 2020 if 2014 spending allocations remained the same.

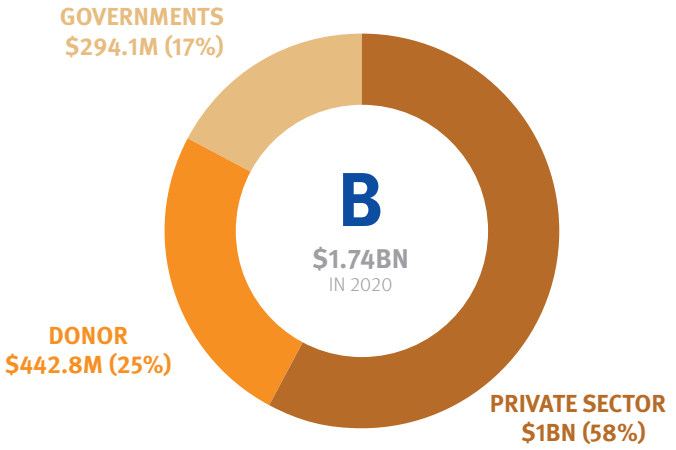
The charts also illustrate the consequences of spenders failing to keep pace with growth in demand. Should FP2020 reach its goal of 120 million additional contraceptive users (Scenario B), for example, but donors did not increase their spending on supplies above the 2014 amount, it could lead to a gap of $132.2 million that would need to be filled either by governments or by users themselves.

GROWTH IN REQUIRED SPENDING: SCENARIOS A VERSUS B

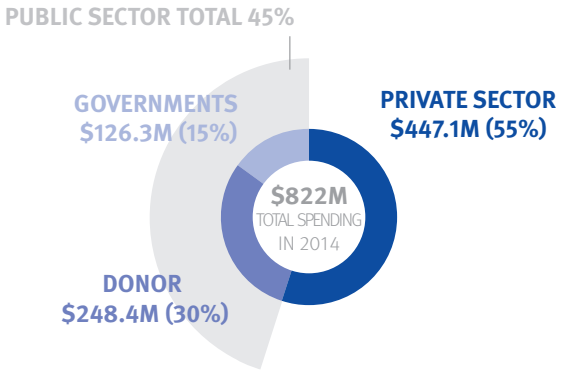
135 LMI COUNTRIES

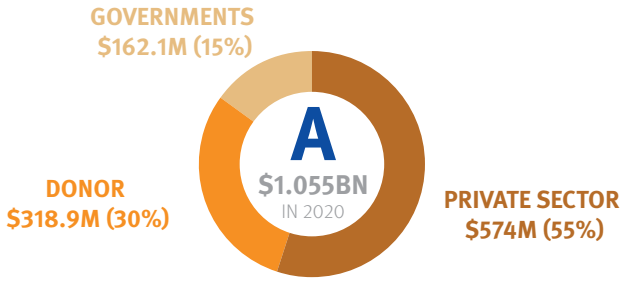


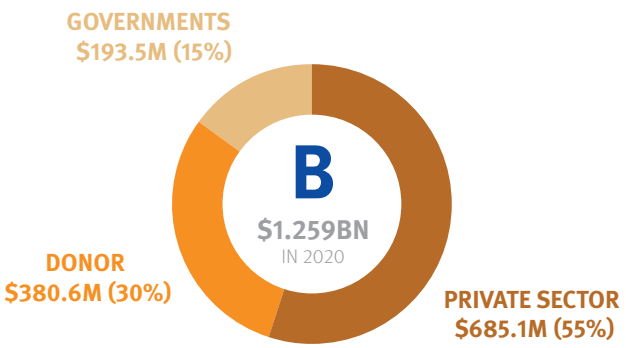




69 FP2020 COUNTRIES



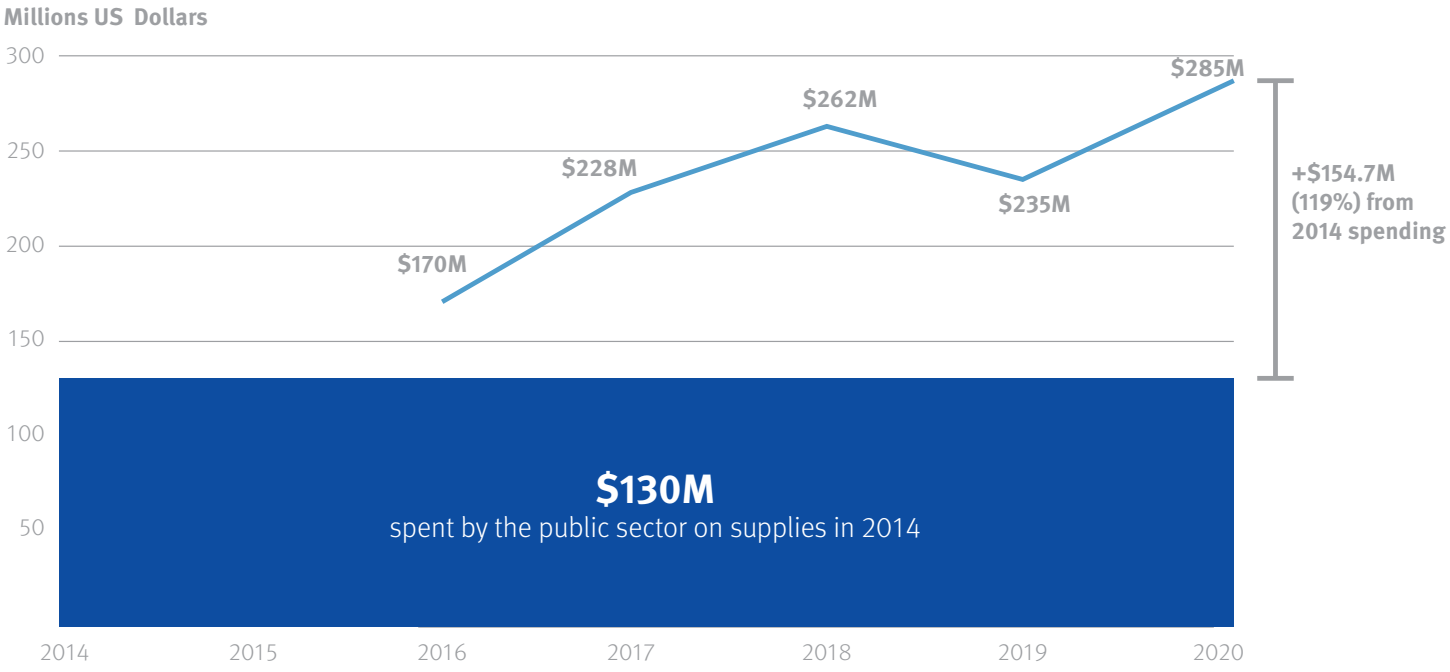




Our ability to predict procurement quantities and costs is more circumscribed. For various reasons, visibility into government quantification reports that contain forecasts and procurement plans is very limited. In this analysis, therefore, we used data from the available quantification reports to project aggregate procurement quantities and costs for the years 2016 through 2020 for the eleven countries participating in the Global Financing Facility[26], a subset of 20 countries that we examined. It is our hope that subsequent iterations of this CGA will benefit from insights found in quantification reports from a larger number of countries.

The quantification report analysis determined that the 2016 procurement cost, for the public sector only, in the eleven GFF countries is **$170.1 million** (including freight). Total public sector spending on supplies in these eleven countries was **$130 million** in 2014, so already in 2016, we see a gap of **$40.1 million.** As shown below, by 2020, the procurement cost will increase by **67%** to **$284.6 million**, which presents a gap of **$154.7 million**.

PROJECTED GROWTH OF PROCUREMENT COSTS IN THE 11 GFF COUNTRIES



The following tables present our topline findings for both the 135 LMI and 69 FP2020 countries under Scenario A and Scenario B.

SCENARIO A: Each country persists in its current growth pattern

	NOW 135 LMI COUNTRIES	2020 135 LMI COUNTRIES	NOW 69 FP2020 COUNTRIES	2020 69 FP2020 COUNTRIES
USERS of all methods of contraception	**452.7M** users in 2016	**490.3M** users in 2020 **+37.6M** more than 2016 **+ 8%** increase	**300.3M** users in 2016	**334M** users in 2020 **+ 33.7M** more than 2016 **+ 11%** increase
COST of consumption of supplies, all methods	**$1.352BN** cost in 2016	**$1.525BN** cost in 2020 **+ $173.2M** more than 2016 **+ 12%** increase	**$895.9M** cost in 2016	**$1.055BN** cost in 2020 **+ $159.1M** more than 2016 **+ 17%** increase
SPENDING on supplies; all sources	**$1.203BN** spent in 2014	**$1.525BN** needed in 2020 **+ $322.1M** more than 2014 **+ 27%** increase	**$821.8M** spent in 2014	**$1.055BN** needed in 2020 **+ $233.3M** more than 2014 **+ 28%** increase
—by donors funds from aid agencies, NGOs, basket funds, loans	**$305.5M** (25% in 2014)	**$387.2M** needed in 2020 **+ $81.7M** more than 2014	**$248.4M** (30% in 2014)	**$318.9M** needed in 2020 **+ $70.5M** more than 2014
—by governments using internally generated revenue	**$202.9M** (17% in 2014)	**$257.2M** needed in 2020 **+ $54.3M** more than 2014	**$126.3M** (15% in 2014)	**$162.1M** needed in 2020 **+ $35.8M** more than 2014
—by private sector mostly spending by individuals	**$694.9M** (58% in 2014)	**$880.9M** needed in 2020 **+ $186M** more than 2014	**$447.1M** (54% in 2014)	**$574M** needed in 2020 **+ $126.9M** more than 2014

SCENARIO B: Growth in all countries accelerates as FP2020 goal is achieved

	NOW 135 LMI COUNTRIES	2020 135 LMI COUNTRIES	NOW 69 FP2020 COUNTRIES	2020 69 FP2020 COUNTRIES
USERS of all methods of contraception	**452.7M** users in 2016	**549.9M** users in 2020 **+97.1M** more than 2016 **+ 21%%** increase	**300.3M** users in 2016	**390.1M** users in 2020 **+ 89.8M** more than 2016 **+ 29%** increase
COST of consumption of supplies, all methods	**$1.352BN** cost in 2016	**$1.744BN** cost in 2020 **+ $392.4M** more than 2016 **+ 29%** increase	**$895.9M** cost in 2016	**$1.259BN** cost in 2020 **+ $363.2M** more than 2016 **+ 40%** increase
SPENDING on supplies; all sources	**$1.203BN** spent in 2014	**$1.744BN** needed in 2020 **+ $541.2M** more than 2014 **+ 45%** increase	**$821.8M** spent in 2014	**$1.259BN** needed in 2020 **+ $437.4M** more than 2014 **+ 53%** increase
—by donors funds from aid agencies, NGOs, basket funds, loans	**$305.5M** (25% in 2014)	**$442.8M** needed in 2020 **+ $137.3M** more than 2014	**$248.4M** (30% in 2014)	**$380.6M** needed in 2020 **+ $132.2M** more than 2014
—by governments using internally generated revenue	**$202.9M** (17% in 2014)	**$294.1M** needed in 2020 **+ $91.2M** more than 2014	**$126.3M** (15% in 2014)	**$193.5M** needed in 2020 **+ $67.2M** more than 2014
—by private sector mostly spending by individuals	**$694.9M** (58% in 2014)	**$1.007BN** needed in 2020 **+ $312.6M** more than 2014	**$447.1M** (54% in 2014)	**$685.1M** needed in 2020 **+ $238M** more than 2014

The Development of the CGA Project

The Reproductive Health Supplies Coalition envisioned this commodity gap analysis as a means of bringing together diverse data sources and methodologies related to contraceptive supply security for the purpose of producing actionable information for a broad range of stakeholders. To determine what data sources and methodologies to draw from, and which stakeholders to consult about their information needs, RHSC convened a small group of advisors to provide formative guidance.

A stakeholder consultation for the CGA project was conducted in March and April of 2016. It comprised interviews with 30 individuals from 19 agencies and organizations. Following the stakeholder consultation, RHSC convened a group of technical experts to discuss the range and potential of available data sources and methodologies that might contribute to the CGA project.

CGA PROJECT ADVISORY GROUP	
Ian Askew, World Health Organization	Erik Beekink, NIDI
John Bongaarts, Population Council	Win Brown, Bill & Melinda Gates Foundation
Jacqui Darroch, Guttmacher Institute	John Stover, Avenir Health

CGA PROJECT STAKEHOLDER CONSULTATION: MANUFACTURERS, DONORS, ADVOCATES, AND TECHNICAL EXPERTS	
Advance Family Planning	Beth Frederik
Avenir Health -Track20	Emily Sonneveldt, Michelle Weinberger
Bayer	Klaus Brill
CIFF	Steven Chapman
CHAI	Ryan Fu, Mindy Scibilia, Ashley Nguyen
Guttmacher Institute	Gustavo Suarez
Helm-Fresenius	Ed Oosterman
International Consortium for EC	Elizabeth Westley
John Snow, Inc.	Alexis Heaton, Laila Akhlagi, Sara Laaff
Marie Stopes International	Aisha Dasgupta
Merck/MSD	Maggie Kohn
Mylan	Venkatesh Iyer
Norad	Nina Strom
Pfizer	Eleanor Levine
RHSC Secretariat	Anita Despshande, Ellen Tompsett
UK DFID	Meena Gandhi
United Nations Population Division	Vladimira Kantorova
UNFPA	Renee van de Weerdt, Jennie Greaney
USAID	Mark Rilling, Denise Harrison, Coite Manuel, Kevin Pilz

CGA PROJECT TECHNICAL EXPERTS MEETING	
Avenir Health	John Stover, Michelle Weinberger
CHAI	Mindy Scibiilia, Ryan Fu, Ashley Nguyen
Deliver Project	Jim Rosen
Engender Health	Leah Jarvis
Guttmacher Institute	Jacqui Darroch
John Snow, Inc.	Alexis Heaton, Emma Stewart
Netherlands Interdisciplinary Demographics Institute	Erik Beekink, Patricia Hernandez, Karen Vrijberg
Population Council	Saumya Ramarao
RHSC	John Skibiak, Nina Miller (consultant)
UNFPA	Jennie Greaney
United Nations Population Division	Vladimia Kantorova

Several individuals who did not participate in the stakeholder consultation or technical experts meeting provided shared data and expertise during the implementation of this project. They include: Maggie Murphy of John Snow, Inc., John Ross of Avenir Health, and Kabir Ahmed and Sandra Novo of UNFPA

Endnotes

1. See www.familyplanning2020.org for more information.
2. See www.track20.org for more information.
3. The Family Planning Estimation Tool (FPET) was designed to produce annual estimates of CPR and other indicators using statistical modeling that incorporates survey data and service statistics. Technical Brief: Family Planning Estimation Tool https://goo.gl/OKoim2.
4. United Nations, Department of Economic and Social Affairs, Population Division (2016). Model-based Estimates and Projections of Family Planning Indicators 2016. New York: United Nations.
5. Jacqueline E. Darroch, Singh S., Weissman E. Adding it Up: The Costs and Benefits of Investing in Sexual and Reproductive Health in 2014-Estimation Methodology. Guttmacher Institute, 2016.
6. See www.unfpa.org for more information.
7. See www.nidi.nl for more information.
8. See www.avenirhealth.org for more information.
9. See www.clintonhealthaccess.org for more information.
10. See www.jsi.com for more information.
11. All figures have been rounded to the nearest hundred-thousandth. Percentages may not add up to 100 due to rounding.
12. 135 countries categorized as low-income or middle-income by the World Bank as of July 2016. China, which the World Bank categorizes as middle-income, is not included in the scope of our analysis.
13. In deference to FP2020's forthcoming report, we refrain from showing discrete totals of the number of users of contraception in the 69 FP2020 focus countries for the year 2016.
14. Our method mix is comprised of the six most prevalent methods of contraception and a seventh miscellaneous category: sterilization (female and male), implants, IUDs, injectables, pills, male condoms (contraceptive use only), and "other" (emergency contraception, female condoms, Standard Days Method, LAM, diaphragms, and contraceptive foams and jellies). Traditional methods of contraception are excluded from our analysis.
15. 2012 is the year the London Summit on Family Planning, which launched the FP2020 initiative, took place.
16. Demographic and Health Surveys
17. Multiple Indicator Cluster surveys
18. See www.PMA2020.org for more information.
19. Our calculation of supply costs represents the product quantity multiplied by the current product price (including the commodity and associated clinical supplies). Costs such as freight, potential price changes due to new products or changes in unit prices offered by manufactures, and inflation in future years are not included.
20. Our spending analysis comprises all spending on contraceptive supplies that transpired in the year 2014, which is the most recent year with sufficient available data for 135 countries.
21. Public sector spending by donors includes direct spending on supplies, contributions used to underwrite procurement, in-kind contributions of supplies, basket funds used by governments to procure supplies, and World Bank loan funds used to procure supplies. Donors include aid agencies, social marketing groups and international non-governmental organizations, and philanthropic entities. Data from UNFPA Supplies, NIDI, and the Deliver Project (CS Indicators) were used to inform this category.
22. Public sector spending by governments is comprised exclusively of expenditures made by the governments of the 135 LMI countries using internally generated (non-donor, non-basket fund, and non-World Bank loan) revenue. Data from the Deliver Project (CS Indicators) were used to inform this category.
23. Data from NIDI informed this category, and we inferred private sector spending by extracting from the DHS and other household surveys to estimate the number of users of each method of contraception who received services and supplies from a private sector provider. The quantity of supplies these users would consume in a year was then costed using commodity prices appropriate to each method in each country (provided by the Guttmacher Institute).
24. Note that spending on contraceptive supplies across 135 countries in the year 2014 purchased the quantities that individual users consumed as well as additional quantities procured by institutional purchasers to keep public sector supply pipelines at optimal stock levels. Spending figures exclude the cost of freight.
25. All figures showing the cost of supplies consumed by users are valued at current prices. Future changes to commodity prices and inflation are not included in our calculations.
26. The Global Financing Facility is a multi-stakeholder partnership that supports country-led efforts to improve the health of women, children, and adolescents. The eleven countries currently participating in the GFF are: Bangladesh, Cameroon, DR Congo, Ethiopia, Kenya, Liberia, Mozambique, Nigeria, Senegal, Tanzania, and Uganda. For more information, visit www.globalfinancingfacility.org

The Reproductive Health Supplies Coalition

The Coalition is a global partnership of public, private, and non-governmental organizations dedicated to ensuring that everyone in low- and middle-income countries can access and use affordable, high-quality supplies for their better reproductive health. It brings together agencies and groups with critical roles in providing contraceptives and other reproductive health supplies. These include multilateral and bilateral organizations, private foundations, governments, civil society, and private sector representatives.

Reproductive Health
SUPPLIES COALITION

Rue Marie-Thérèse 21
1000 Brussels
Belgium

Tel: +32 2 210 0222
Fax: +32 2 219 3363
E-mail: secretariat@rhsupplies.org