

## Please note

In 2019, updates to historical datasets were made upon consultation with relevant current suppliers, including the addition of a new supplier's data. As a result, the 2015, 2016, 2017, and 2018 reports do not reflect the most comprehensive, up-to-date information. Please find the most recent report [here](#).



# FAMILY PLANNING MARKET REPORT

AUGUST 2016

## ACKNOWLEDGEMENTS:

This report was produced as part of the landmark FP2020 Global Markets Visibility Project that CHAI launched in early 2014 in conjunction with the Reproductive Health Supplies Coalition (RHSC).

The shipment data provided by suppliers was pivotal to addressing information gaps and constructing a more comprehensive view of the reproductive health commodities market. We would like to thank current participating suppliers (Bayer, CR Zizhu, Cipla, Cupid, Mylan, Helm AG, Female Health Company, Merck/MSD, Pfizer, Pregna, PT Tunggul, Shanghai Dahua, and SMB) as well as our partner, the Concept Foundation, for their support in collecting and aggregating data from the Generic Manufacturers for Reproductive Health (the GEMS Caucus).

We are also grateful to our colleagues from the FP2020, Coordinated Supply Planning Group, UNFPA, USAID, and Track20 for their invaluable feedback in the development and refinement of various market analyses.

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BETWEEN 2011 AND 2015, THE TOTAL 69 FP2020 COUNTRIES PUBLIC SECTOR MARKET<sup>1</sup> METHOD MIX SHIFTED IN FAVOR OF LONG-ACTING REVERSIBLE CONTRACEPTIVES, AND IMPLANTS SPECIFICALLY. THIS INCREASE WAS EVEN MORE PRONOUNCED BETWEEN 2013 AND 2015.

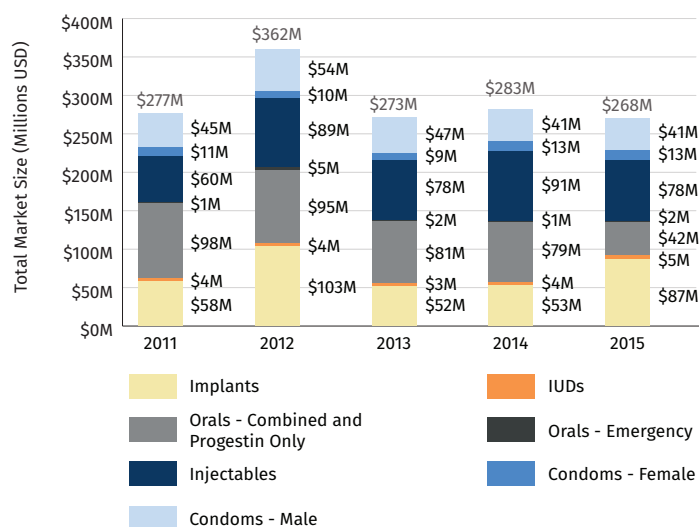
THERE IS AN OVERALL INCREASE IN THE NUMBER OF IMPLIED CONTRACEPTIVE USERS IN FP2020 COUNTRIES, EVEN THOUGH TOTAL SHIPMENT VOLUMES<sup>2</sup> HAVE DECLINED AS A RESULT OF THE INCREASED DEMAND<sup>3</sup> FOR CURRENT LOWER PRICED LONG-ACTING REVERSIBLE IMPLANTS. CONSEQUENTLY, THE FP2020 PUBLIC SECTOR MARKET VALUE HAS REMAINED RELATIVELY FLAT OVER THE PERIOD BETWEEN 2011 AND 2015.

*This report covers the total FP2020 public sector market – defined as volumes purchased by institutional buyers (USAID, UNFPA, SMOs, etc.) and Ministry of Health (MOH) or government-affiliated procurers for the 69 FP2020 focus countries. The report highlights trends between 2011 and 2015, with a focus on significant new findings for the period from 2013 to 2015. Where percentage changes are discussed, the Compound Annual Growth Rate (CAGR)<sup>4</sup> is used unless otherwise noted. Numbers may vary slightly between exhibits due to rounding.*

**There was a significant increase in demand for implants between 2011 and 2015.**

The sizeable increase in demand for implants<sup>5</sup> from six million units to 10 million units from 2013 to 2015 has resulted in long-acting and reversible contraceptives (LARCs) now making up 34 percent<sup>6</sup> of the total FP2020 public sector market value<sup>7</sup>. The spend<sup>7</sup> on implants and IUDs has grown to US\$92 million in 2015, up from US\$55 million in 2013. LARCs now also represent over 50 percent of the overall implied method mix (Exhibits 1-3, 5).<sup>8</sup> Short-acting methods (including condoms, injectables, and oral contraceptives) represent 66 percent of the total FP2020 public sector market value in 2015, down from 80 percent in 2013.

EXHIBIT 1: TOTAL FP2020 MARKET SIZE (USD)



Note: The sum of individual stacked bars for all exhibits may differ slightly from totals due to rounding.

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016; [3] UNFPA Contraceptive Price Indicator, 2011–2015; [4] PPMR Data, March 2016; [5] USAID, "Couple-Years of Protection (CYP)," March 2016; [6] IAP Implant Price.

1. The total FP2020 public sector market is based on volumes purchased by institutional buyers and MOH or government-affiliated procurers based on RHI data (male condoms) and historical supplier-reported shipment data (female condoms, implants, injectables, IUDs, and orals) for the 69 FP2020 focus countries, defined as countries with a 2010 gross national income (GNI) per capita less than or equal to US\$2,500. Although South Africa made an FP2020 commitment, its GNI per capita was greater than US\$2,500.

2. Shipment volumes refer to the amount of a particular contraceptive method that has been transported.

3. Demand refers to the desire for a particular contraceptive method in a country; for the purposes of this report, it is assumed that increased procurement is a result of increased demand from users.

4. The compound annual growth rate (CAGR) measures the mean annual growth rate required to get from the initial value to the ending value over a specified period of time.

5. There was a 50 percent reduction in implant prices in 2013 as part of the Implant Access Program (IAP); however, the implant unit cost remains higher relative to other methods, but lower on a cost per couple-years of protection (CYP) basis. See Exhibit 4 for further details.

6. Long-acting and reversible contraceptive methods include IUDs and implants.

7. Market value and spend refers to the supplier-reported shipment volume multiplied by the average prices of UNFPA and USAID for the specific years.

8. Method mix is the percentage distribution of implied contraceptive users by method.

The total number of implied users<sup>9</sup> has increased during the period, from 92 million<sup>10</sup> in 2011 to 112 million in 2015; the increasing trend of implied users is also observed between 2013 and 2015.

The estimated number of users using product-based modern methods of contraception, based on data from the supplier-reported and Reproductive Health Interchange (RHI) shipment data have increased from 92 million in 2011 to 112 million in 2015. The observed increase is due to the fact that more users are adopting the longer-acting implants, which offer higher couple-years of protection (CYP)<sup>11</sup> relative to short-acting methods (Exhibit 3).

**The FP2020 public sector market value has remained fairly flat during the period 2011 to 2015.**

The decrease in value and volume of oral contraceptives shipped to the FP2020 public sector market was offset by the significant increase in implant shipment volumes over the period and the higher unit cost of implants relative to other methods, resulting in a FP2020 public sector market value of US\$268 million in 2015 compared to US\$277 million in 2011 (Exhibit 1).

**Eleven countries represented half of the total FP2020 public sector market value in 2015: Tanzania, Ethiopia, Nigeria, Kenya, Bangladesh, Pakistan, Uganda, Zimbabwe, Malawi, Zambia, and Madagascar.**

In 2013, seven countries accounted for half of the total FP2020 public sector market value as compared to 11 in 2015. This change in the market concentration is driven by the supplier-reported shipment volumes related to Bangladesh, which have declined over the period from 2011 to 2015. This corresponds to a decline in donor-funded shipment volumes for Bangladesh as also recorded in the RHI database and this is also consistent with findings on page 12 of this report indicating that Bangladesh has shifted its procurement towards local and regional suppliers. Shipment data from these suppliers are not currently available under the auspices of this project (Exhibits 7, 8).

**Donors spent US\$186 million on family planning products in 2015. Overall, there was a slight increase in donor spending between 2011 and 2015, but an annual year-on-year decline of 4 percent from the 2013 spend of US\$203 million.**

Donor spending accounted for 69 percent of the total spending on family planning products in 2015. (Exhibit 10) As a result of the decrease between 2013 and 2015, the number of users supported by donor funding has also declined by 7 percent since 2013, from 68 million<sup>12</sup> to 60 million (Exhibit 11).

**The 2013 to 2015 user trends presented in this report and those reported by FP2020 in the “FP2020 Commitment to Action” report are well aligned in that they both underscore an increase in users<sup>13</sup>. A more detailed discussion of this is described in the “Assessing Progress towards FP2020” section.**

Note: The sum of individual stacked bars for all exhibits may differ slightly from totals due to rounding

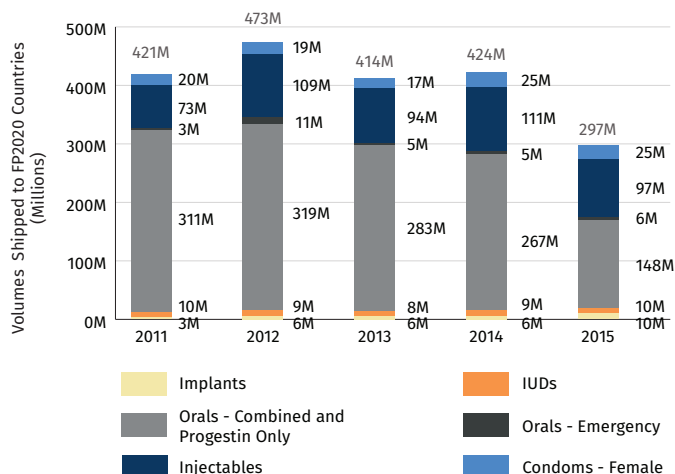
Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016; [3] UNFPA Contraceptive Price Indicator, 2011–2015; [4] PPMR Data, March 2016; [5] USAID, “Couple-Years of Protection (CYP),” March 2016; [6] IAP Implant Price.

9. Implied users and all users referred to in this report are a measure of the number of women using a contraceptive method that is calculated using a method-specific consumption to shipment factor and corresponding couple-years of protection (CYP) factor. See Appendix C for further details.

10. Previous report stated 85 million users in 2011; the discrepancy can be attributed to adding the data of two suppliers and change in consumption to shipment factor methodology. See Appendix C for further details.

11. Couple-years of protection is the estimated protection provided by a family planning method during a one-year period, based on the volumes of all contraceptives sold or distributed to clients during that period. This report relies upon USAID CYP conversion factors; USAID,

**EXHIBIT 2: TOTAL FP2020 MARKET IN TERMS OF VOLUMES (MALE CONDOMS SEPARATED)\***

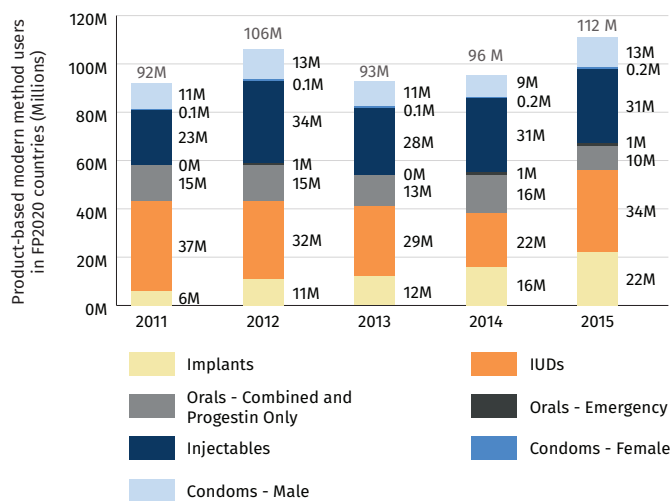


**MALE CONDOM SHIPMENT VOLUMES (BILLIONS)**

Year	2011	2012	2013	2014	2015
Volume (Billions)	1.62	1.84	1.57	1.39	1.39

\*Male condoms are separated because the source of the shipment data is from RHI whereas all other methods are supplier-reported. See Appendix C for further details.

**EXHIBIT 3: TOTAL FP2020 USERS ON PRODUCT-BASED MODERN METHODS**



“Couple-Years of Protection (CYP),” April 2014, available at <http://www.usaid.gov/what-we-do/global-health/family-planning/couple-years-protection-cyp>. See Appendix C for further details.

12. Previous report stated donor-funded procurements supported 65 million users in 2013; the discrepancy can be attributed to adding the data of two suppliers and the change in consumption to shipment factor methodology. See Appendix C for further details.

13. The numbers in this report differ from FP2020 estimates because they rely on estimates derived from supplier-reported shipment data of family planning commodities within the public sector only, whereas the methodology used to determine total FP2020-reported additional users is estimated based on household survey data that includes both public and private sector coverage, and includes non-product-based methods such as sterilization.

## BETWEEN 2013 AND 2015, INCREASING DEMAND FOR IMPLANTS SHIFTED THE METHOD MIX AND MARKET SHARE<sup>14</sup> IN FAVOR OF LARCS. HOWEVER, SHORT-ACTING METHODS CONTINUED TO DOMINATE THE MARKET IN TERMS OF VALUE, DESPITE DECREASING SHIPMENT VOLUMES.

*This section of the report analyzes shipment, spend, and user trends in the total FP2020 public sector market from 2011 to 2015 using supplier shipment data from 13 suppliers (an increase from 11 suppliers in the previous report) for all product-based methods except for male condoms, which derive from the Reproductive Health Interchange (RHI) database.*

**The 2013 implant price reduction contributed to the significant increase in demand for implants, with shipment volumes increasing from six million in 2013 to 10 million in 2015; implants spending increased from US\$52 million to US\$87 million.**

Implants alone represented 32 percent of the market value in 2015, up from 19 percent in 2013. However, short-acting methods continue to hold a dominating market share at 66 percent, although down from 80 percent in 2013. Among short-acting methods, orals exhibited the most significant change with a decrease in market share from 31 percent in 2013 to 17 percent in 2015, driven by continued declining shipment volumes (Exhibits 1, 2, 5).

**The implied number of users on product-based methods in 2015 grew from 93 million users<sup>15</sup> in 2013 to 112 million users in 2015.**

Due to the higher couple-years of protection offered by LARCs, more users can be served by lower product volumes. Thus, even though total shipment volumes decreased during the period, there were 112 million total users implied by the supplier-reported shipment volumes in 2015, up from 93 million in 2013. LARCs represented 51 percent of the implied user method mix in 2015, up from 43 percent in 2013. This shift was most clearly seen from 2014 to 2015, whereas the method mix remained relatively stable from 2013 to 2014 (Exhibits 3, 5).

**EXHIBIT 4: COST PER COUPLE-YEARS OF PROTECTION BY METHOD (USD)**

METHOD	UNITS PER CYP	UNIT COST					COST PER CYP				
		2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Condoms - Female	120.00	\$0.56	\$0.55	\$0.54	\$0.53	\$0.52	\$67.02	\$66.42	\$65.04	\$63.36	\$62.40
Condoms - Male	120.00	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$3.34	\$3.52	\$3.56	\$3.57	\$3.51
Injectables - 1 month	13.00	\$0.84	\$0.85	\$0.84	\$0.85	\$0.85	\$10.92	\$11.05	\$10.95	\$11.05	\$11.05
Injectables - 2 month	6.00	N/A	N/A	\$1.30	\$1.30	\$1.15	N/A	N/A	\$7.80	\$7.80	\$6.90
Injectables - 3 month	4.00	\$0.82	\$0.82	\$0.78	\$0.79	\$0.80	\$3.27	\$3.27	\$3.12	\$3.17	\$3.13
Orals - Combined	15.00	\$0.31	\$0.30	\$0.28	\$0.30	\$0.28	\$4.70	\$4.44	\$4.26	\$4.43	\$4.20
Orals - Progestin Only	15.00	\$0.32	\$0.32	\$0.31	\$0.31	\$0.32	\$4.84	\$4.85	\$4.64	\$4.60	\$4.80
Orals - Emergency	20.00	\$0.34	\$0.49	\$0.44	\$0.30	\$0.37	\$6.74	\$9.74	\$8.84	\$5.92	\$7.40
Implants - 3 Year	0.40	\$18.20	\$17.92	\$8.50	\$8.50	\$8.50	\$7.28	\$7.17	\$3.40	\$3.40	\$3.40
Implants - 4 Year	0.31	N/A	N/A	\$8.50	\$8.50	\$8.50	N/A	N/A	\$2.66	\$2.66	\$2.66
Implants - 5 Year	0.26	\$19.43	\$18.05	\$8.50	\$8.50	\$8.50	\$5.11	\$4.75	\$2.24	\$2.24	\$2.24
IUDs	0.22	\$0.43	\$0.43	\$0.43	\$0.48	\$0.47	\$0.09	\$0.09	\$0.09	\$0.10	\$0.10

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016; [3] UNFPA Contraceptive Price Indicator, 2011–2015; [4] PPMR Data, March 2016; [5] USAID, "Couple-Years of Protection (CYP)," March 2016; [6] IAP Implant Price.

14. Market share is the percentage of total value of shipment volumes in a market captured by a certain contraceptive method.

15. Previous report stated 90 million users in 2013; the discrepancy can be attributed to adding the data of two suppliers and the change in consumption to shipment factor methodology. See Appendix C for further details.

EXHIBIT 4: COST PER COUPLE-YEARS OF PROTECTION BY METHOD (USD) (CONTINUED)

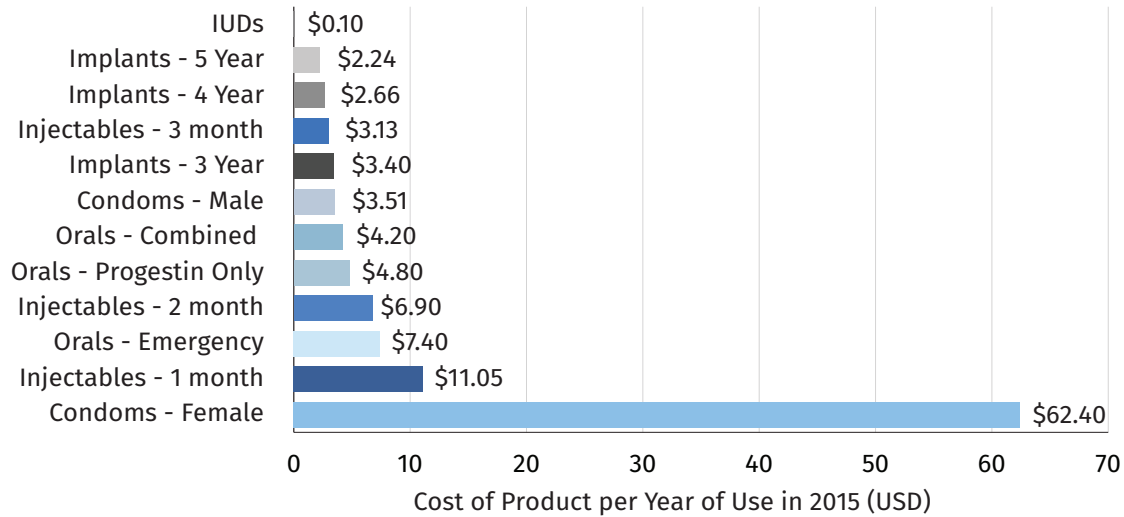
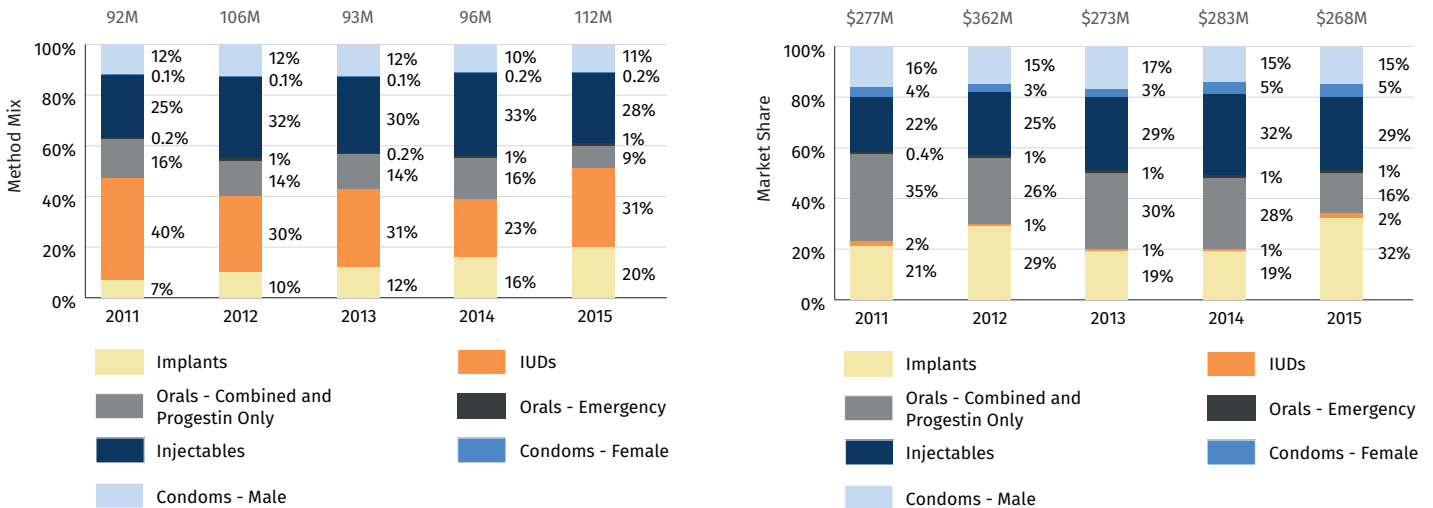


EXHIBIT 5: FP2020 CONTRACEPTIVE SHIPMENT MIX (IN TERMS OF VOLUMES), METHOD MIX (IN TERMS OF USERS), AND MARKET SHARE (IN TERMS OF DOLLARS) BY YEAR



SHIPMENT MIX	2011	2012	2013	2014	2015
Condoms - Female	1.0%	0.8%	0.9%	1.4%	1.5%
Condoms - Male	79%	80%	79%	77%	82%
Implants	0.2%	0.2%	0.3%	0.3%	0.6%
Injectables	3.6%	4.7%	4.7%	6.1%	5.8%
IUDs	0.5%	0.4%	0.4%	0.5%	0.6%
Orals - Emergency	0.1%	0.5%	0.2%	0.3%	0.4%
Orals - Combined & Progestin Only	15%	14%	14%	15%	9%
<b>Total Volumes</b>	<b>2.04 B</b>	<b>2.32 B</b>	<b>1.98 B</b>	<b>1.82 B</b>	<b>1.69 B</b>

Note: The sum of individual stacked bars for all exhibits may differ slightly from totals due to rounding

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016; [3] UNFPA Contraceptive Price Indicator, 2011–2015; [4] PPMR Data, March 2016; [5] USAID, "Couple-Years of Protection (CYP)," March 2016; [6] IAP Implant Price.

## ELEVEN COUNTRIES ACCOUNT FOR HALF OF THE TOTAL FP2020 PUBLIC SECTOR MARKET IN 2015.

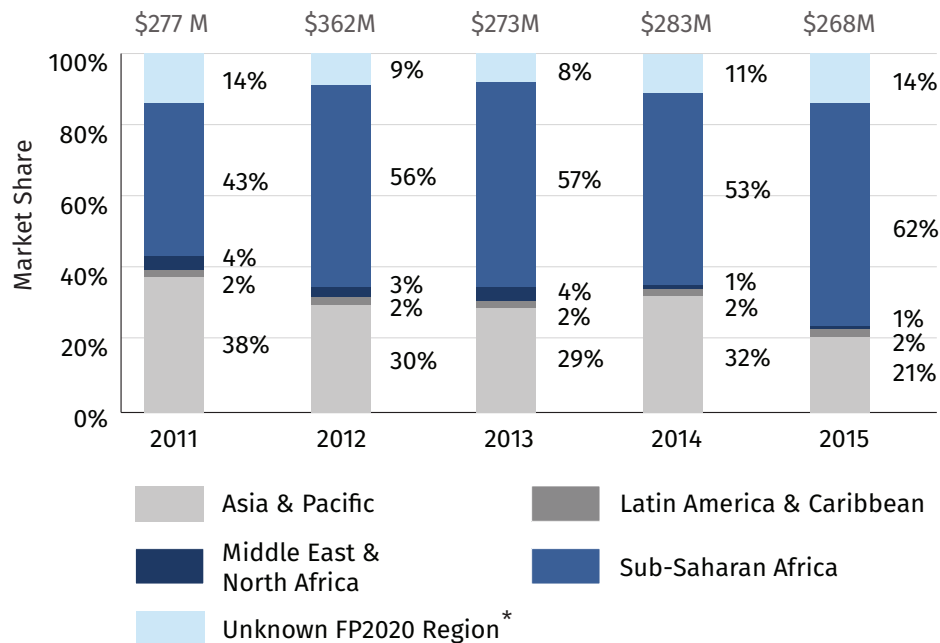
In 2015, Tanzania, Ethiopia, Nigeria, Kenya, Bangladesh, Pakistan, Uganda, Zimbabwe, Malawi, Zambia, and Madagascar accounted for US\$133 million in market value annually, or 50 percent of the total public sector market.

The seven countries which accounted for over 50 percent of the 2013 total FP2020 public sector market value remain on this list, but they now account for less than 50 percent of the 2015 total FP2020 public sector market value. This is due to a continual decline in shipment volume to Bangladesh, resulting in a market value drop from US\$70 million in 2011 to US\$13 million in 2015. This corresponds to a decline in donor-funded shipment volumes to Bangladesh over the same period as observed in the RHI database. This shift should not be interpreted as a decline in use of contraception in Bangladesh, but represents a shift to local and regional suppliers as evidenced by the government's purchase orders and procurement reports, which is further described on page 12 (Exhibits 6, 7, 8).

LARCs accounted for the majority of product-based method mix in nearly half of the top 20 countries in terms of users.

In 2015, LARCs constituted the majority of the user method mix in eight out of the top 20 countries (an increase from six out of 20 in 2013): Tanzania, Ethiopia, Kenya, Pakistan, Uzbekistan, India, Vietnam, and Philippines<sup>16</sup>). In half of those eight countries (Tanzania, Ethiopia, Kenya, and Philippines<sup>16</sup>), implant users represented more than half the number of implied LARC users. In the 12 remaining countries, short-acting method users represented the majority of method mix. Injectables represented more than 50 percent of implied short-acting method users in 10 of the 12 countries: Bangladesh, Nigeria, Uganda, Malawi, Zambia, Madagascar, Myanmar, Ghana, Mozambique, and Honduras. It is important to note however that some of these top 20 countries may also procure domestically from suppliers that may not be participating in the Global Markets Visibility Project at this time. As a result, although indicative, the analysis of users by method may not comprehensively reflect each country's product-based modern method mix (Exhibit 9).

**EXHIBIT 6: TOTAL FP2020 MARKET SHARE BY REGION (USD)**



\*The "Unknown FP2020 Region" represents the proportion of shipment volumes to procurer warehouses where the final FP2020 destination is unknown. See Appendix C for further details.

Note: The sum of individual stacked bars for all exhibits may differ slightly from totals due to rounding

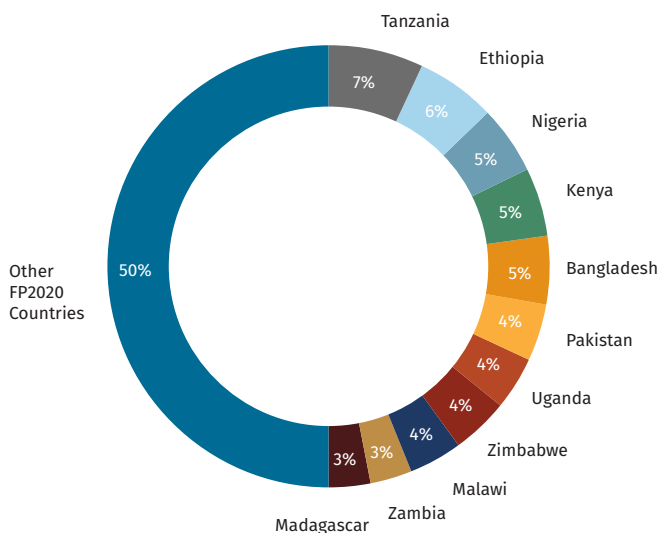
Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016; [3] PPMR Data, March 2016; [4] USAID, "Couple-Years of Protection (CYP)," March 2016.

16. The number of actual implant users in the Philippines in 2015 is likely lower than the shipment-implied estimates. This is due to a Temporary Restraining Order (TRO) issued by the Supreme Court of the Republic of the Philippines on June 17, 2015, as attested to in the Department Memorandum No. 2015-0216 from the Office of the Secretary of the Department of Health (DOH) of the Republic of the Philippines on July 1, 2015. The TRO banned any and all pending

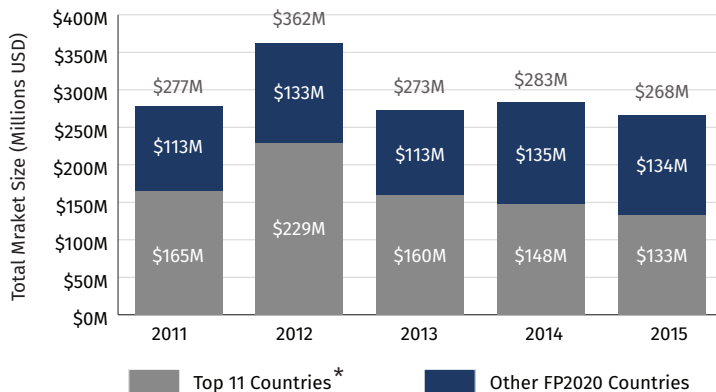
registration and/or re-certification of reproductive products and supplies, and restrained the DOH from procuring, selling, distributing, dispensing or administering, advertising and promoting the hormonal contraceptive Implanon and Implanon NXT. As of the date of publication of this report, this legal matter was still ongoing.



**EXHIBIT 7: TOP 11 COUNTRIES IN TERMS OF MARKET SIZE, 2015**

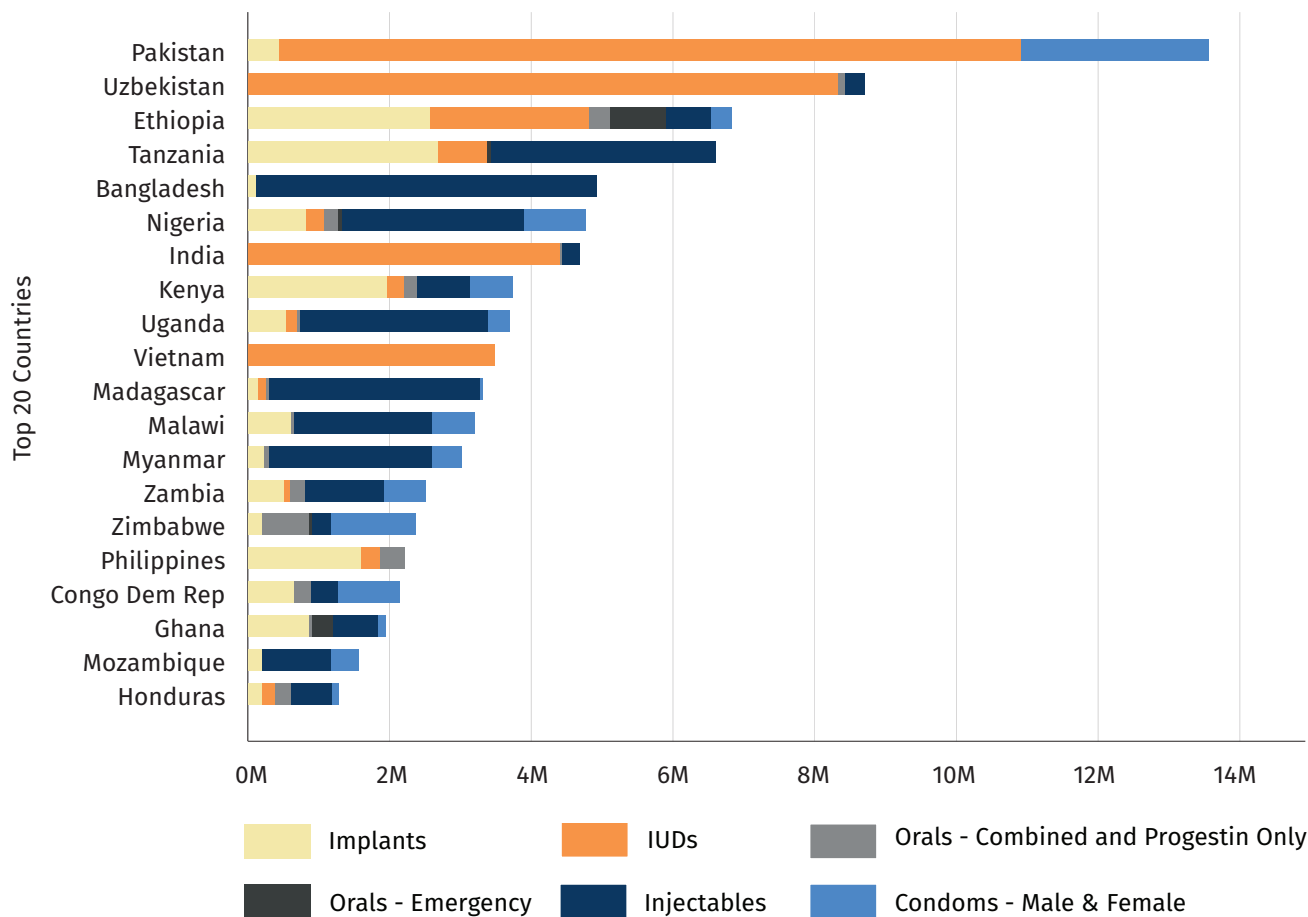


**EXHIBIT 8: TOP MARKETS (DETERMINED BY 2015 DATA) AND OTHER FP2020 MARKETS**



\* Top 11 countries include Tanzania, Ethiopia, Nigeria, Kenya, Bangladesh, Pakistan, Uganda, Zimbabwe, Malawi, Zambia, and Madagascar.

**EXHIBIT 9: TOP 20 COUNTRIES IN TERMS OF USERS, 2015**



Note: The sum of individual stacked bars for all exhibits may differ slightly from totals due to rounding

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016; [3] PPMR Data, March 2016; [4] USAID, "Couple-Years of Protection (CYP)," March 2016.

**IN 2015, DONOR SPENDING DECREASED TO US\$186 MILLION FROM US\$203 MILLION IN 2013. CONSEQUENTLY, DONOR-FUNDED PROCUREMENT SUPPORTED 60 MILLION USERS OF PRODUCT-BASED METHODS IN 2015, DOWN FROM 68 MILLION<sup>17</sup> IN 2013. THE INCREASED DEMAND FOR IMPLANTS IS REFLECTED IN THE PROCUREMENT PATTERNS OF BOTH UNFPA AND USAID.**

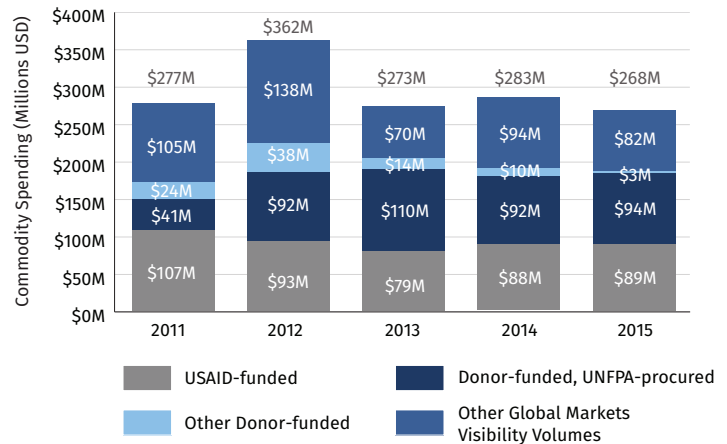
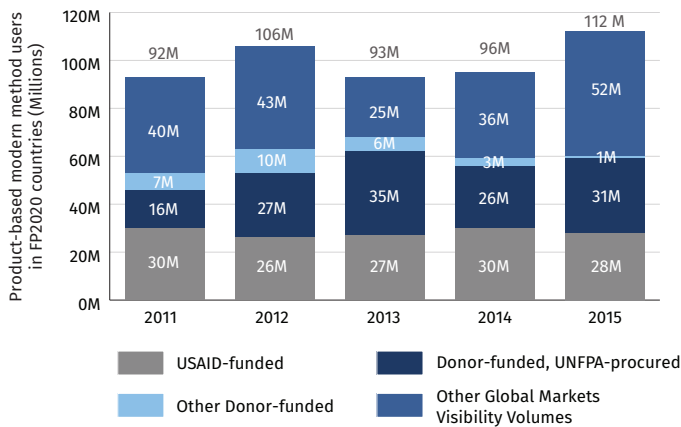
*This section of the report analyzes donor spend and user trends in the total FP2020 public sector market from 2011 to 2015, based on RHI shipment data for all methods.*

UNFPA's contraceptive procurement spending for the total FP2020 public sector market was US\$94 million in 2015 compared to US\$110 million in 2013, an annual year-on-year decrease of 8 percent. Comparatively, USAID's funding increased from US\$79 million in 2013 to US\$89 million in 2015, an annual year-on-year increase of 6 percent. Other donors' spending decreased from US\$14 million to US\$3 million, an annual year-on-year decrease of 54 percent over the same period (Exhibit 10).

In 2015, donor-funded procurements supported 53 percent of total users implied by the supplier-reported shipment data; this represents an annual year-on-year decrease of 7 percent from 2013.

The total number of users supported by UNFPA decreased from 35 million in 2013 to 31 million in 2015, whilst USAID's total user support remained relatively stable over that period from 27 million in 2013 to 28 million in 2015. Other donor-funded user support has continued to decrease from six million in 2013 to one million in 2015, an annual year-on-year decrease of 54 percent (Exhibit 10).

**EXHIBIT 10: DONOR-SUPPORTED USERS & COMMODITY COSTS**



Note: The sum of individual stacked bars for all exhibits may differ slightly from totals due to rounding

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016 [3] UNFPA Contraceptive Price Indicator, 2011–2015; [4] PPMR Data, March 2016; [5] USAID, "Couple-Years of Protection (CYP)," March 2016; [6] IAP Implant Price.

17. Previous report stated donor-funded procurements supported 65 million users in 2013; the discrepancy can be attributed to an updated RHI dataset and the change in consumption to shipment factor methodology.

**The demand for implants in donor-supported countries has continued to increase since 2013.**

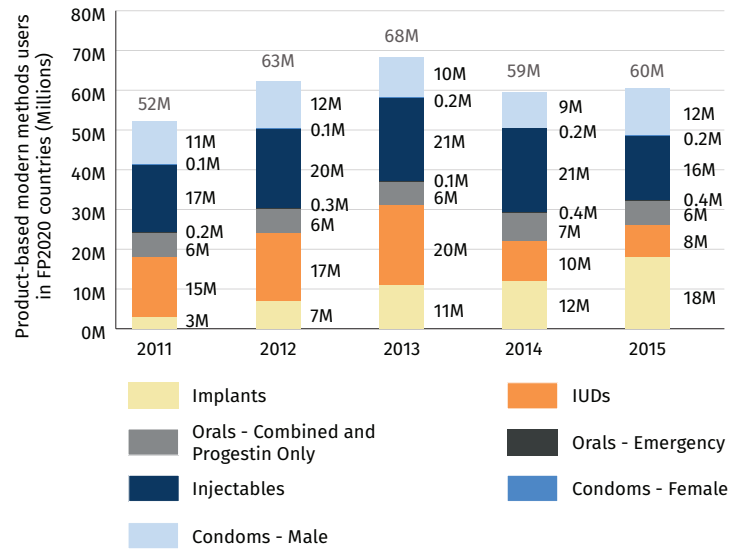
Between 2013 and 2015, donor-funded implant shipment volumes have increased from six million to eight million, an annual year-on-year increase of 6 percent, while shipment volumes for all other methods have decreased, resulting in an estimated 18 million users using donor-funded implants in 2015, up from 11 million in 2013 (Exhibit 11).<sup>18</sup> Implants have now become the top contraceptive method in terms of donor spending, accounting for 37 percent of all donor-spend on contraceptives. By contrast, the next highest methods, injectables and male condoms, each represented approximately one-fifth of the 2015 donor spend.

**The purchasing patterns of USAID and UNFPA demonstrate a relatively stable method mix between LARCs and short-acting methods, with implant users surpassing IUD users in terms of LARCs.**

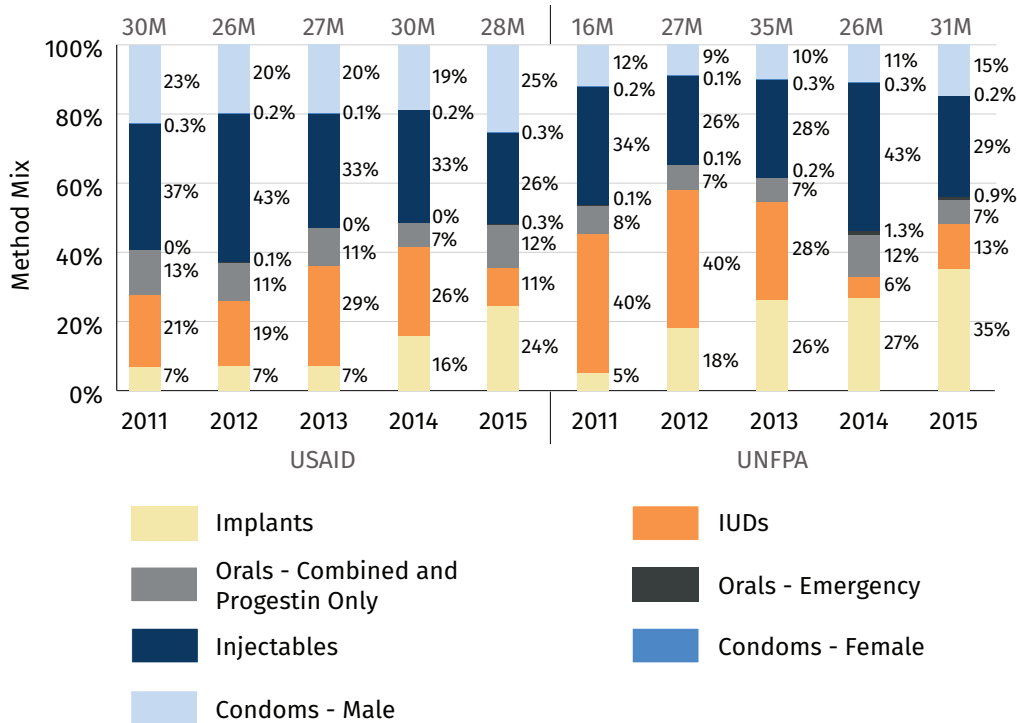
The implied method mix from USAID's 2015 contraceptive procurements reveals that, at 64 percent (same level as in 2013), short-acting methods continue to dominate the method mix. Short-acting methods accounted for a little more than half (52 percent) of the implied method mix from UNFPA procurements in 2015, a moderate increase from 46 percent in 2013.

Within LARC users, implant users accounted for 68 percent of all USAID implied LARC users in 2015, a significant increase from 19 percent in 2013; for UNFPA, implant users represented 73 percent of all implied LARC users in 2015, a significant increase up from 48 percent in 2013 (Exhibit 11).

**EXHIBIT 11: USERS IMPLIED BY DONOR PROCUREMENT**



**EXHIBIT 12: USER METHOD MIX IMPLIED BY USAID & UNFPA PROCUREMENT**



Note: The sum of individual stacked bars for all exhibits may differ slightly from totals due to rounding

Sources: [1] RHI Shipment Data, March 2016 [2] PPMR Data, March 2016; [3] USAID, "Couple-Years of Protection (CYP)," March 2016

18. Previous report stated donor-funded procurement of implants supported 10.8 million users in 2013; this has been rounded to 11 million.

## MEASURES USED IN THIS REPORT AND THOSE USED BY FP2020 INDICATE CONTINUED GROWTH IN THE NUMBER OF MODERN METHOD USERS AND ARE AN IMPORTANT PART OF HELPING FAMILY PLANNING STAKEHOLDERS ASSESS PROGRESS TOWARD FP2020 GOALS.

*This section of the report compares users implied by the supplier shipment data to users reported by FP2020 in the 69 FP2020 countries; additional research was also conducted for select large markets where bigger gaps are observed between the two datasets.*

**There are important differences between the data coverage and the methodology used as the basis of the 2015 CHAI Family Planning Market Report and this second iteration, which relies on estimates derived from supplier-reported public sector shipment data, and the methodology used by FP2020 to estimate total FP2020 additional users on modern methods that are estimated using statistical models based on household survey data, which includes both public and private sector data and non-product based methods. Additional research into large markets has helped close part of the information gap identified in the 2015 CHAI Family Planning Market Report.**

Based on the supplier-reported shipment data, the number of implied users in the public sector contraceptive market increased by 19 million, from 93 million in 2013 to 112 million in 2015 (Exhibit 3). In comparison, FP2020 reported that the number of total women using a modern method increased by 17 million during that period, from 274 million in 2013 to 291 million in 2015 (Exhibit 13).<sup>19</sup> The trends are therefore similar in that they both underscore an increase in users between 2013 and 2015. However, based on the modern contraceptive prevalence rates and method mix data reported by FP2020, approximately 115 million of users were relying on sterilization<sup>20</sup> in 2015, while the remaining majority of 176 million modern method users in 2015 were relying on product-based methods.<sup>21</sup> Yet, the supplier-reported shipment data continued to account for just over half of total FP2020 estimated product-based users in 2014 and 2015.

Consequently, there is an average gap of 64 million users per year between total FP2020-reported users on product-based modern methods and users implied by the shipment data, between 2012 and 2015 (Exhibit 14).

To understand the drivers of the gap, it is important to first acknowledge the scope of this report. The CHAI Family Planning Market Report, first published in **May 2015**, provided the global community with its first detailed glimpse into the public sector family planning market across the 69 FP2020 countries. Now in its second iteration, the report continues to focus on the public sector procurement in the 69 FP2020

countries; it does not capture commercial sector sales. The scope of the report is defined by the data provided by suppliers participating in the Global Markets Visibility Project, which includes significant coverage of the public sector, donor-funded market. Within the RHI database, suppliers participating in the Global Markets Visibility Project represented 96 percent or more of total shipment volumes of every method,<sup>22</sup> with the exception of IUDs, where participating suppliers held 50 percent of the volumes.

Second, to further investigate the gap, CHAI identified the key countries that accounted for the largest proportion of the gap based on country-specific comparisons between FP2020-reported users on product-based modern methods and users implied by the shipment data.<sup>23</sup> Supplementary research and analysis was thus conducted in three large markets – Bangladesh, India, and Indonesia – the results of which are further detailed on page 12. Purchase orders and procurement reports from these countries' governments revealed that an additional 45 to 51 million users<sup>24</sup> may be attributable to government procurement from regional and local suppliers, which have thus far not participated in the Global Markets Visibility Project.<sup>25</sup> This finding is consistent with the decreasing shipment volumes to these countries seen by the suppliers that are currently participating in the project.

Moving forward, CHAI will be engaging with and seeking the participation of these additional suppliers. CHAI will also pursue its investigation to uncover additional suppliers that may be garnering a significant market share in one of the larger 69 FP2020 countries. CHAI is committed to continuously improving market visibility within the family planning space and evolving future iterations of the report in that regard.

19. Family Planning 2020, "FP2020 Commitment To Action, Measurement Annex" November 2015, pp. 4, 6, 85, 99–101. United Nations, "World Population Prospects" 2012. FP2020 updated 2012 estimates of total women on reproductive age on modern methods in the 69 FP2020 focus countries from 258 million to 265 million.

20. Sterilization does not have associated product costs but does have procedure costs.

21. A small percentage of the remaining modern method users relied on Lactational Amenorrhea Method (LAM).

22. Male condoms are excluded because the source of the shipment data is from RHI whereas all other methods are supplier-reported.

23. In order to be consistent with the dataset used by FP2020, CHAI used UN Population data as of 2012 to determine the FP2020-reported total users on product modern methods by year.

24. There are significant limitations associated with this estimate, including difference in time frames referred to, use of fiscal year data versus calendar years, and various diverse data definitions. See Appendix E for further details.

25. There is currently limited access to these suppliers' data in publicly available data sources such as RHI.

EXHIBIT 13: FP2020 REPORTED GOALS AND ACTUAL USERS

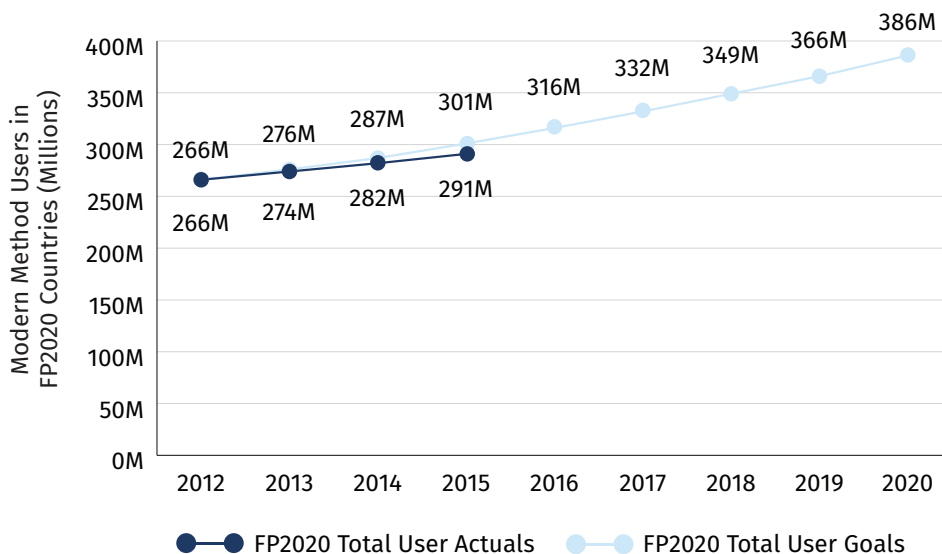
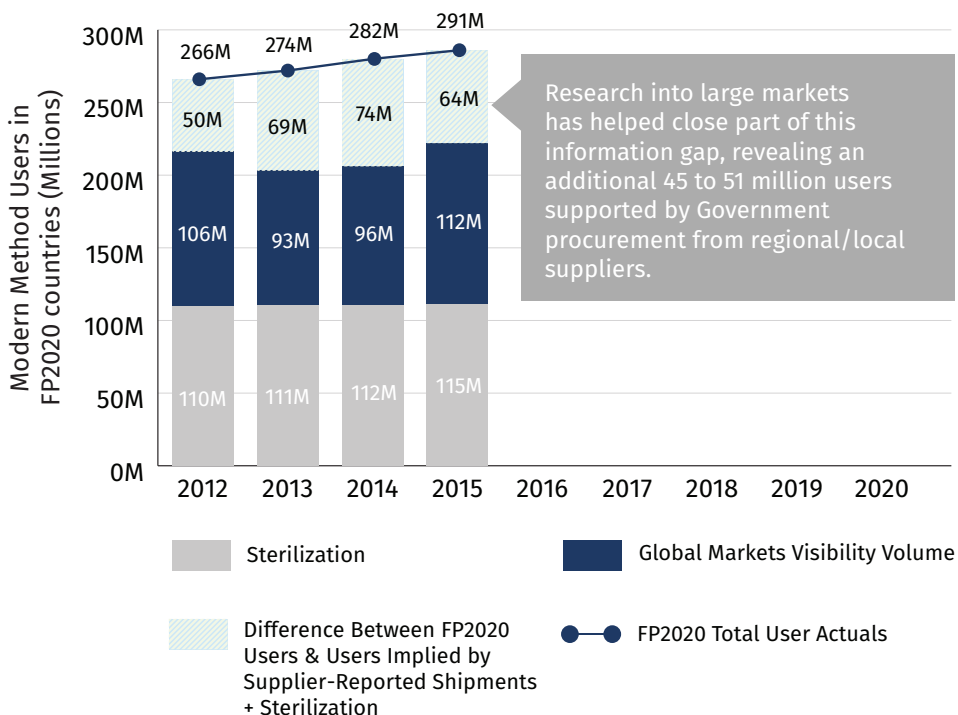


EXHIBIT 14: USERS IN 69 FP2020 COUNTRIES



Sources: [1] Historical Supplier Shipment Data; RHI Shipment Data, March 2016; [3] PPMR Data, March, 2016; [4] USAID, "Couple-Years of Protection (CYP)," March 2016; [5] FP2020 Commitment to Action, November 2015

## SUMMARY OF FINDINGS RELATED SPECIFICALLY TO BANGLADESH, INDIA, AND INDONESIA

### BANGLADESH:

The Bangladesh Ministry of Health and Family Welfare (MOHFW) procured 150 million male condoms, 79 million orals, 17 million injectables, and 50,000 implants during the 2014/2015 fiscal year, which ends on June 30. These contracts were awarded primarily to regional and local suppliers, including but not limited to: HLL Lifecare Limited, Maneesh Pharma, and MSD/Organon (India) Pvt Ltd. from India, Essential Drugs Co. Ltd, Khulna Essential Latex Plant (KELP), M/S, Reneta Ltd., Popular Pharma, and Techno Drugs from Bangladesh. Helm AG from Germany and Merck/MSD are the only companies on this list of suppliers to participate in this report. Therefore, only Helm AG and Merck/MSD's reported volumes were included in the calculation of the number of implied users. Also, the government's procurement volumes are based on the 2014/2015 fiscal year instead of the calendar year used in this report. By applying the same conversion factors used for 2014 and 2015 shipment volumes, we estimate the implied users to be between 11 million to 13 million for 2014/2015, as compared to the five to ten million users implied by the 2014 and 2015 supplier shipment data.

### INDIA:

Based on India's Ministry of Health and Family Welfare (MOHFW) Annual Report for the 2013/2014 fiscal year which ends on March 31, shipment volumes for product-based methods totaled 1.2 billion units while four million sterilizations were performed. The 1.2 billion units in the year 2013/2014 represented an 8 percent increase from the 2010/2011 total of 968 million; the increase was driven by an 8 percent increase in male condoms (reaching 1.1 billion), a 4 percent increase in orals-combined (reaching 93 million), and a 52 percent increase in emergency contraceptives (reaching 15 million). These increases were partly offset by a 12 percent decrease in the shipment volume of IUDs (down to six million). While these shipment volumes are based on the 2013/2014 fiscal year instead of calendar year used in this report, by applying the same conversion factors used for 2013 and 2014 shipment volumes, we estimate that the implied product-based users is approximately 32 million to 43 million users in 2013/2014, as compared to the five to six million users implied by the 2014 and 2015 supplier shipment data. IUD users accounted for close to half of all product-based modern method users, followed by male condoms.

While the MOHFW Annual Reports do not record identities of the awarded suppliers, a USAID report has enabled the identification of local suppliers and the contraceptives supplied to the government and SMO programs as of 2006, including but not limited to: Indian Drug and Pharmaceutical Ltd. (IDPL), HLL Lifecare Limited, Phaarmasia, Pregna International, SMB Corporation, Cipla, Win-Medicare, and Famy Care, now known as Mylan.<sup>26,27</sup> This list was further validated by in-country partners. Of these suppliers, Pregna International, SMB Corporation, Cipla, and Mylan currently participate in this report.

### INDONESIA:

Data from the public tender documents published by National Family Planning Coordinating Body (BKKBN) shows a total procurement of 84 million units of contraceptive products in 2015, including 30 million oral contraceptives, 53 million injectables, and 700,000 implants. By applying the same conversion factors used for the 2015 shipment volume, we estimate that the implied product-based users is approximately 19 million, as compared to the less than one million implied by the 2015 supplier shipment data.

While the tender documents do not record who the awarded suppliers are, additional research identified locally-based manufacturers of contraceptives in Indonesia and the products they supply, including but not limited to: PT Tunggal, PT Kimia Farma, PT Sunthi Sepuri, PT Harsen, PT Pratapa-Nirmala Fahrenheit, PT Triyasa, PT Catur Dakwah Crane, and PT Mitra Rajawali Bandjaran; among them PT Tunggal is the only supplier participating in this report as part of the GEMS Caucus.

Additional information about these three markets can be found in Appendix E.

26. USAID, "Assessment of India's locally manufactured contraceptive product supply", 2006, available at: [http://pdf.usaid.gov/pdf\\_docs/Pnadf989.pdf](http://pdf.usaid.gov/pdf_docs/Pnadf989.pdf)

27. In 2015, Mylan Laboratories Limited, completed the acquisition of certain women's health-care businesses, known as Jai Pharma, which were spun off from Famy Care Limited.

### About the Global Markets Visibility Project

The Global Markets Visibility Project is a landmark initiative that resulted in the publication of the first CHAI Family Planning Market Report in May 2015, which provided the community with its first detailed glimpse into the public sector family planning market across the 69 FP2020 countries. The initiative provides insightful and strategic outputs for donors, MOHs, implementing organizations and suppliers to develop and implement more effective strategies aimed at ensuring that an additional 120 million women in the world's 69 poorest countries have access to family planning products and services by 2020.

The report is a joint collaboration with the Reproductive Health Supplies Coalition (RHSC). The initial report included data from 11 manufacturers obtained either through direct MOUs or collaborations with the Generic Manufacturers Caucus for Reproductive Health (GEMs) and i+solutions. We have expanded our coverage and are privileged to now include data from two new suppliers. In addition, all suppliers who previously provided data agreed to participate in this year's report. Donors, suppliers, and partners expressed strong interest to continue this project, build on our progress, and strengthen the family planning community's market knowledge.

### Market Definition, Scope, and Coverage

The total FP2020 public sector market referenced in this report includes only data for the public sector in the 69 FP2020 countries – defined as volumes purchased by institutional buyers (USAID, UNFPA, SMOs, etc.) and MOH or government-affiliated procurers.

Although significant efforts have been deployed to collect as much data as possible, it should be noted that this report may not represent the entirety of institutional purchases for the public sector as it includes data from the majority, but not all, of the suppliers to these markets.

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APPENDIX A69 FP2020 COUNTRIES MARKET VOLUMES BY METHOD<sup>28</sup> AND COUNTRY 2011–2015

EXHIBIT A.1: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2011 <sup>29</sup>					
COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Afghanistan	19,572,826	-	1,395,200	67,000	807,674
Bangladesh	112,426,800	422,109	18,984,000	475,000	138,631,121
Benin	13,249,064	48,600	10,300	21,000	-
Bhutan	2,880,000	-	475,200	1,600	88,002
Bolivia	1,570,360	2,350	-	35,000	210,000
Burkina Faso	-	2,000	-	-	1,597,501
Burundi	14,673,200	44,600	-	39,000	33,335
Cambodia	1,764,000	19,000	-	20,000	20,000
Cameroon	-	11,500	-	31,000	50,200
Central African Re- public	6,410,600	500	200	-	91,403
Chad	1,567,600	15,000	52,000	1,000	-
Comoros	1,008,000	1,024	26,800	100	-
Congo Dem Rep	73,252,800	8,500	350,000	26,000	1,295,595
Congo Rep	20,566,352	10	1,412,400	500	391,905
Cote d'Ivoire	34,967,400	-	630,800	10,000	2,613,145
Djibouti	590,240	-	-	1,500	-
Egypt Arab Rep	50,400	17,500	4,780,000	2,135,000	3,000,000
Eritrea	7,804,000	5,100	-	5,500	61,672
Ethiopia	146,223,384	382,704	5,471,200	420,000	7,752,440
Gambia	1,585,000	100	10,000	500	433,337
Ghana	5,514,000	57,674	3,044,000	-	-
Guinea	7,932,400	1,000	546,240	11,000	233,335
Guinea-Bissau	1,555,000	5,000	-	-	5,001
Haiti	54,534,096	-	976,800	-	200,001
Honduras	19,202,400	-	148,000	22,453	943,300
India	-	-	193,201	1,959,570	8,661,563
Indonesia	210,000	-	-	316,721	50,001
Iraq	-	-	-	75,000	2,633,250
Kenya	48,266,720	505,209	1,370,032	-	15,136,914
Korea Dem Rep	1,267,200	-	-	36,150	139,500
Kyrgyz Republic	5,202,600	-	-	160,000	-
Lao PDR	8,484,208	6,200	650,000	-	922,112
Lesotho	8,356,936	2,000	65,000	-	63,000
Liberia	22,048,800	3,000	423,200	-	-

28. Female condoms are aggregated with male condoms by country in order to protect data confidentiality.

29. Other FP2020 shipment volumes include shipments to procurer (USAID, UNFPA, SMOs) warehouses in non-FP2020 countries, such as Belgium, Denmark, France, Germany, Netherlands, Norway, Sweden, Switzerland, UK, and US. Although these volumes were shipped to

non-FP2020 countries, the end shipment destination of these volumes would likely be the 69 FP2020. As a result, these non-FP2020 volumes were included in the total shipments to 69 FP2020 countries after it was confirmed that the specific non-FP2020 volumes were associated with institutional purchases.



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EXHIBIT A.1: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2011 <sup>29</sup>					
COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Madagascar	24,254,800	124,318	1,913,600	4,500	324,550
Malawi	11,886,001	46,452	540,000	-	50,000
Mali	1,000	53,600	1,292,625	41,501	-
Mauritania	3,600,000	3,728	6,000	5,500	533,336
Mongolia	10,002,880	1,000	-	-	321,000
Mozambique	96,394,000	5,010	1,241,400	41,000	5,393,262
Myanmar	56,563,712	4,000	-	-	6,918,499
Nepal	33,641,000	-	327,600	10,000	250,000
Nicaragua	13,356,000	-	332,100	50,000	842,001
Niger	10,000	4,612	814,000	2,800	400,000
Nigeria	78,948,652	32,900	3,157,500	209,000	1,055,335
Pakistan	249,431,800	25,300	5,862,000	200,000	400,299
Papua New Guinea	2,500,000	2,000	-	-	1,663,200
Philippines	740,800	-	-	-	6,639,745
Rwanda	30,211,488	-	1,768,400	18,600	-
Sao Tome and Principe	2,190,600	-	852,075	200	47,129
Senegal	11,400,000	10,350	-	3,000	220,000
Sierra Leone	4,515,800	91,700	-	35,500	1,206,269
Solomon Islands	30,000	-	-	-	24,000
Somalia	-	-	-	-	-
South Sudan	4,161,000	-	-	-	-
Sri Lanka	779,600	10,000	-	80,000	2,191,240
Sudan	10,591,344	3,500	-	2,000	1,167,875
Tajikistan	10,105,072	5,440	-	150,000	-
Tanzania	29,772,456	240,104	6,176,400	25,000	1,410,170
Timor-Leste	57,600	1,100	-	3,500	145,002
Togo	14,392,368	16,500	-	6,400	12,663
Uganda	82,319,600	86,688	2,089,800	83,785	334,220
Uzbekistan	5,414,112	-	-	1,500,000	600,000
Vietnam	15,049,000	9,000	1,180,000	1,772,000	-
West Bank and Gaza	4,521,600	-	-	-	-
Western Sahara	-	-	-	-	-
Yemen Rep	829,440	6,625	2,001,875	30,000	3,971,120
Zambia	58,807,168	-	1,544,200	-	748,000
Zimbabwe	126,944,000	61,900	782,500	2,600	14,836,223
Other FP2020 Shipment Volumes	6,937,864	692,800	385,700	145,850	76,285,355

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016.

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EXHIBIT A.2: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2012

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Afghanistan	12,418,680	3,000	619,300	30,000	199,470
Bangladesh	26,736,000	512,800	18,562,000	515,000	146,646,964
Benin	21,806,400	16,500	-	19,000	-
Bhutan	3,456,000	-	70,000	-	97,899
Bolivia	121,000	25,300	-	6,000	3,000
Burkina Faso	16,741,200	117,100	1,369,900	16,500	2,348,935
Burundi	6,272,000	120,000	996,000	175,000	608,160
Cambodia	748,656	29,676	307,600	58,650	1,125,338
Cameroon	3,162,000	12,300	-	20,000	17,840
Central African Republic	3,415,400	13,600	198,400	1,000	1,031,664
Chad	70,000	25,800	30,000	3,000	-
Comoros	576,000	500	15,000	-	17,199
Congo Dem Rep	148,830,600	46,800	1,344,000	39,000	4,210,965
Congo Rep	7,018,400	300	800,000	-	-
Cote d'Ivoire	37,371,000	16,456	700,000	-	2,455,000
Djibouti	519,680	-	-	500	96,000
Egypt Arab Rep	2,185,920	45,000	5,000,000	338,000	4,746,366
Eritrea	100,000	100	-	-	21,600
Ethiopia	173,877,714	1,471,188	16,429,200	257,200	8,545,593
Gambia	1,000	5,000	1,000	-	24,000
Ghana	7,605,000	196,460	2,172,000	-	120,000
Guinea	4,428,640	7,000	713,000	2,600	1,650,800
Guinea-Bissau	730,000	10,000	14,000	22,000	4,641
Haiti	69,799,680	6,000	1,607,200	1,000	346,560
Honduras	9,772,992	-	691,900	19,400	1,810,800
India	-	-	134,494	2,973,600	5,750,000
Indonesia	250,000	-	-	588,850	-
Iraq	-	-	-	-	3,252,000
Kenya	151,368,000	176,556	9,631,025	25,000	4,503,281
Korea Dem Rep	2,592,000	-	51,000	30,000	351,999
Kyrgyz Republic	26,602,800	-	5,600	255,000	482,880
Lao PDR	2,865,600	1,600	605,000	13,000	2,676,480
Lesotho	1,749,200	-	110,000	-	-
Liberia	6,286,945	18,000	-	-	4,860
Madagascar	3,151,400	174,336	2,896,200	-	2,881,680
Malawi	19,956,960	182,744	4,922,400	6,000	125,791

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EXHIBIT A.2: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2012					
COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Mali	6,433,920	55,000	168,800	18,000	2,314,375
Mauritania	20,000	-	13,400	-	-
Mongolia	6,073,000	5,120	120,000	-	652,797
Mozambique	98,478,960	30,000	2,490,000	-	6,419,170
Myanmar	9,785,112	-	1,501,600	18,000	6,864,858
Nepal	66,400,720	88,000	237,600	104,600	-
Nicaragua	4,229,280	-	450,400	11,896	822,055
Niger	24,400	3,108	200,600	10,000	740,850
Nigeria	199,399,440	328,212	14,321,300	872,634	3,025,137
Pakistan	252,501,000	70,768	857,600	90,700	226,701
Papua New Guinea	600,000	26,500	800,000	600	6,335
Philippines	2,001,600	1,536	200,000	447,514	14,565,234
Rwanda	15,724,568	20,060	776,400	-	105,000
Sao Tome and Principe	1,682,600	6,100	15,000	5,000	125,400
Senegal	14,407,000	77,056	1,478,400	14,000	1,002
Sierra Leone	1,122,000	-	250,000	15,990	739,073
Solomon Islands	-	-	-	-	-
Somalia	-	2,000	-	-	20,000
South Sudan	2,400,000	5,004	-	-	-
Sri Lanka	-	74,800	250,000	1,800	2,167,010
Sudan	3,335,968	25,040	-	9,000	3,968,200
Tajikistan	1,800,600	-	41,500	140,000	432,480
Tanzania	52,549,408	351,500	4,155,900	47,000	2,105,540
Timor-Leste	2,592,000	5,450	-	2,000	128,571
Togo	43,054,408	26,000	322,400	-	27,000
Uganda	89,421,536	396,829	6,249,200	76,896	114,400
Uzbekistan	3,635,000	-	445,000	800,000	1,121,280
Vietnam	52,546,800	23,976	900,000	800,000	138,999
West Bank and Gaza	-	-	-	-	-
Western Sahara	-	-	-	-	-
Yemen Rep	3,801,888	24,000	180,000	95,000	3,443,504
Zambia	39,274,440	38,300	2,010,800	-	1,655,200
Zimbabwe	99,270,000	113,600	634,200	6,050	14,254,948
Other FP2020 Shipment Volumes	15,667,176	721,200	12,500	84,400	68,013,625

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016.

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EXHIBIT A.3: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2013

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Afghanistan	23,181,800	-	1,550,000	-	17,001
Bangladesh	10,111,950	-	14,200,000	-	76,298,840
Benin	6,790,800	44,200	32,400	32,000	180,000
Bhutan	295,200	-	-	2,000	126,420
Bolivia	3,457,460	34,500	500,000	70,000	429,840
Burkina Faso	1,411,200	257,196	215,650	28,000	565,200
Burundi	640,833	-	1,000,000	-	574,080
Cambodia	2,160,000	51,399	-	2,000	4,320,008
Cameroon	-	30,300	12,800	57,659	1,494,720
Central African Republic	10,449,800	6,000	183,000	1,500	1,003,797
Chad	1,337,200	44,100	628,400	13,000	2,701,920
Comoros	1,252,800	1,600	93,300	500	48,720
Congo Dem Rep	81,658,344	187,168	1,219,300	118,000	2,384,472
Congo Rep	20,000	800	273,500	500	2,457,988
Cote d'Ivoire	18,607,800	14,000	240,000	2,500	4,584,370
Djibouti	2,288,000	-	7,600	500	8,640
Egypt Arab Rep	100,800	10,801	1,000,164	2,340,100	-
Eritrea	100,000	600	-	-	50,400
Ethiopia	75,766,296	981,740	6,159,396	160,000	15,082,178
Gambia	1,001,800	5,000	110,000	-	253,160
Ghana	34,302,000	144,348	1,025,500	10,000	451,280
Guinea	9,150,400	13,000	-	4,000	-
Guinea-Bissau	1,759,600	21,400	20,600	5,500	42,840
Haiti	51,940,800	1,700	1,646,400	2,000	223,920
Honduras	11,505,600	5,056	670,000	-	1,879,920
India	-	-	18,260	650,800	17,671,399
Indonesia	-	113,500	-	727,409	-
Iraq	-	-	-	-	3,000,000
Kenya	945,600	635,043	12,635,755	1,250	6,269,302
Korea Dem Rep	2,462,400	-	-	15,000	96,000
Kyrgyz Republic	5,299,200	-	15,000	-	570,300
Lao PDR	655,200	-	279,200	5,000	178,962
Lesotho	37,442,000	100	120,000	15,000	238,800
Liberia	17,500,000	15,200	244,800	-	400,320
Madagascar	4,547,768	239,980	5,733,542	-	2,376,836
Malawi	74,791,080	193,048	1,742,327	15,610	1,590,523
Mali	20,041,008	87,700	1,197,198	-	-

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EXHIBIT A.3: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2013

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Mauritania	12,548,900	5,120	156,700	-	726,480
Mongolia	4,633,152	17,744	80,000	35,000	435,482
Mozambique	30,528,579	127,000	3,072,000	16,000	8,425,200
Myanmar	5,459,032	-	821,000	23,000	10,240,559
Nepal	6,370,788	10,000	655,200	30,000	-
Nicaragua	4,003,200	300	339,000	7,500	1,094,813
Niger	3,394,000	90,016	503,400	-	3,183,760
Nigeria	88,696,740	344,663	2,142,300	-	2,303,072
Pakistan	315,871,100	45,492	9,151,200	200,400	-
Papua New Guinea	19,924,800	38,790	-	4,000	1,313,583
Philippines	-	85,056	1,485,000	-	9,331,385
Rwanda	14,132,000	27,000	928,000	-	1,477,200
Sao Tome and Principe	5,000	500	-	-	6,000
Senegal	10,385,200	-	1,159,000	26,000	-
Sierra Leone	11,122,800	36,600	733,000	18,000	1,652,870
Solomon Islands	-	-	-	500	-
Somalia	-	1,000	-	-	148,700
South Sudan	4,101,000	10,940	-	500	775,200
Sri Lanka	-	93,000	233,500	110,000	2,068,050
Sudan	6,889,600	30,572	-	-	2,456,292
Tajikistan	7,096,200	-	-	105,000	-
Tanzania	29,769,000	309,621	-	55,000	2,009,270
Timor-Leste	57,600	2,100	-	-	225,863
Togo	11,465,520	68,000	606,500	-	108,960
Uganda	185,409,800	471,635	12,243,775	143,000	142,000
Uzbekistan	9,553,400	-	300,000	800,000	1,367,760
Vietnam	31,968,000	56,136	870,000	1,700,000	71,665
West Bank and Gaza	3,998,304	-	-	-	-
Western Sahara	-	-	-	-	-
Yemen Rep	6,082,704	56,192	1,126,284	471,459	17,423,472
Zambia	86,409,000	75,000	1,656,900	-	2,669,480
Zimbabwe	111,075,000	244,180	2,460,400	3,500	24,101,441
Other FP2020 Shipment Volumes	54,175,200	678,000	251,400	84,430	46,980,070

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016.

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EXHIBIT A.4: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2014

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Afghanistan	17,329,040	3,000	109,600	5,500	424,560
Bangladesh	-	-	13,000,000	400,000	88,795,560
Benin	3,993,400	61,300	462,400	50,500	1,011,681
Bhutan	1,440,000	-	-	-	156,150
Bolivia	877,250	27,500	-	-	-
Burkina Faso	12,588,200	298,500	1,476,400	12,900	2,346,480
Burundi	-	207,900	1,500,200	6,860	470,200
Cambodia	2,995,200	30,588	520,000	55,000	4,417,848
Cameroon	10,545,460	69,400	-	2,000	639,339
Central African Republic	200,000	3,500	142,300	-	155,024
Chad	3,738,240	41,100	644,800	-	-
Comoros	-	500	-	-	59,997
Congo Dem Rep	140,366,800	50,212	267,600	14,000	964,695
Congo Rep	9,243,540	2,108	21,400	105,000	468,597
Cote d'Ivoire	21,745,600	75,700	1,698,200	15,500	4,770,310
Djibouti	-	-	3,800	-	15,000
Egypt Arab Rep	468,000	140,032	365,000	591,111	-
Eritrea	-	500	20,000	-	108,000
Ethiopia	44,350,736	495,112	12,226,888	430,500	5,894,456
Gambia	1,440,000	9,048	160,000	-	67,860
Ghana	45,105,600	120,696	6,003,800	20,250	2,630,160
Guinea	8,955,000	20,800	45,800	-	194,400
Guinea-Bissau	2,426,400	31,000	25,000	-	8,280
Haiti	57,184,080	-	1,199,200	4,000	-
Honduras	18,254,736	40,000	119,400	21,500	2,860,830
India	-	-	10,094	2,039,273	13,244,150
Indonesia	12,000	-	-	768,575	-
Iraq	5,078,880	-	-	5,039	1,513,029
Kenya	14,426,000	481,336	2,681,620	-	3,617,640
Korea Dem Rep	-	-	-	-	96,000
Kyrgyz Republic	-	-	40,000	-	-
Lao PDR	2,793,456	3,024	382,000	-	1,141,200
Lesotho	44,934,736	600	1,000	-	26,640
Liberia	9,574,000	-	457,000	-	352,080
Madagascar	27,001,200	77,440	8,058,500	-	1,057,362
Malawi	55,827,800	104,324	6,531,650	-	630,006
Mali	32,271,400	100,600	1,190,600	21,000	2,673,306

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EXHIBIT A.4: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2014

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Mauritania	43,000	1,200	35,000	-	83,520
Mongolia	882,720	-	-	25,000	158,420
Mozambique	1,800,000	22,000	6,868,050	-	129,600
Myanmar	14,708,640	5,000	6,087,300	20,000	13,108,816
Nepal	13,462,400	44,700	3,795,800	35,149	2,558,000
Nicaragua	-	-	95,150	-	-
Niger	504,000	171,024	762,200	3,500	1,918,800
Nigeria	68,370,144	323,168	7,747,600	141,100	920,802
Pakistan	253,485,000	34,080	10,367,600	2,163,550	-
Papua New Guinea	11,238,800	42,000	1,322,400	10,000	1,125,519
Philippines	-	149,023	2,000	-	18,456,458
Rwanda	5,403,000	32,816	1,727,200	-	60,480
Sao Tome and Principe	7,160	-	-	-	39,600
Senegal	30,213,112	33,600	1,149,600	42,000	691,000
Sierra Leone	6,756,880	-	414,600	-	549,360
Solomon Islands	7,000	-	-	-	34,560
Somalia	28,800	28,000	60,000	8,500	68,880
South Sudan	-	15,000	-	-	24,999
Sri Lanka	-	63,000	406,800	-	6,619,680
Sudan	7,833,600	29,440	6,600	-	1,589,396
Tajikistan	7,438,096	-	43,600	40,000	193,440
Tanzania	31,370,600	458,644	1,492,400	75,000	2,421,591
Timor-Leste	-	10,500	181,400	-	205,359
Togo	7,278,801	48,200	63,000	-	69,104
Uganda	134,701,296	479,202	6,172,050	-	533,130
Uzbekistan	4,809,600	-	-	1,457,500	-
Vietnam	-	43,322	-	-	-
West Bank and Gaza	-	-	-	-	-
Western Sahara	-	-	-	-	-
Yemen Rep	2,367,360	25,088	306,500	48,000	2,338,860
Zambia	54,777,800	136,600	2,532,100	3,500	1,576,800
Zimbabwe	116,153,000	149,100	-	3,000	14,795,070
Other FP2020 Shipment Volumes	47,544,044	1,405,100	390,400	171,201	61,284,336

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016.

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EXHIBIT A.5: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2015

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Afghanistan	1,704,000	4,500	-	30,000	300,000
Bangladesh	-	50,000	15,100,000	-	-
Benin	12,169,800	222,536	125,500	66,500	525,600
Bhutan	1,936,800	-	111,000	-	129,999
Bolivia	-	3,500	-	-	-
Burkina Faso	19,747,510	244,044	564,000	35,500	3,559,057
Burundi	5,760,000	134,500	1,639,267	-	594,600
Cambodia	5,730,480	11,000	200,000	30,000	9,551,557
Cameroon	26,245,443	125,052	10,000	46,550	48,465
Central African Republic	-	500	37,900	-	23,841
Chad	100,000	7,600	-	-	-
Comoros	1,303,200	1,008	78,400	-	35,001
Congo Dem Rep	97,286,368	308,230	1,189,200	-	3,124,218
Congo Rep	7,104,840	11,000	622,360	-	-
Cote d'Ivoire	100,000	15,664	212,000	-	5,224,561
Djibouti	-	500	296,667	-	93,327
Egypt Arab Rep	-	-	-	258,200	-
Eritrea	-	-	120,000	-	108,000
Ethiopia	31,052,091	1,180,607	2,000,000	650,000	8,478,983
Gambia	2,900	30,048	265,000	-	156,240
Ghana	13,995,000	403,236	1,394,600	-	1,993,464
Guinea	10,080,000	32,500	907,448	-	484,880
Guinea-Bissau	3,384,720	59,400	27,500	-	78,000
Haiti	60,014,400	9,300	421,400	-	228,571
Honduras	10,000,800	93,656	1,725,800	62,000	2,446,065
India	-	-	795,252	1,273,927	325,000
Indonesia	20,000	25,086	-	171,000	-
Iraq	-	-	-	-	-
Kenya	67,552,000	905,900	2,231,000	70,000	3,142,535
Korea Dem Rep	-	-	-	-	-
Kyrgyz Republic	1,527,264	-	80,000	-	-
Lao PDR	10,875,960	20,000	333,000	-	1,530,720
Lesotho	21,016,000	1,500	81,800	-	124,369
Liberia	9,009,780	44,600	846,800	-	459,270
Madagascar	1,500,000	72,722	9,349,250	35,996	595,605
Malawi	65,826,192	278,786	6,099,200	-	552,795
Mali	39,764,195	195,805	432,840	18,393	948,953



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EXHIBIT A.5: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2015

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Mauritania	-	86,264	41,200	-	140,640
Mongolia	3,160,800	-	90,000	-	242,382
Mozambique	41,712,000	95,000	3,025,500	-	-
Myanmar	42,251,912	108,156	7,231,700	900	1,134,860
Nepal	6,864,000	127,500	1,067,000	-	2,304,779
Nicaragua	-	2,000	65,050	3,000	188,640
Niger	-	12,700	820,800	10,425	2,495,670
Nigeria	97,478,368	379,591	8,132,250	75,000	2,725,901
Pakistan	289,413,000	210,484	-	3,024,116	-
Papua New Guinea	3,480	100,800	1,327,200	-	16,399
Philippines	-	731,244	-	82,336	4,135,001
Rwanda	18,627,000	28,752	727,667	5,768	334,166
Sao Tome and Principe	-	-	9,400	-	66,329
Senegal	18,858,530	65,384	760,000	-	1,471,680
Sierra Leone	7,926,120	68,500	726,800	-	1,214,340
Solomon Islands	-	-	15,000	-	-
Somalia	151,200	52,016	158,900	-	262,080
South Sudan	9,036,000	53,100	89,350	-	147,902
Sri Lanka	-	56,000	574,000	130,000	1,589,760
Sudan	3,000	30,568	474,200	-	3,851,868
Tajikistan	24,812,640	3,500	90,000	-	270,000
Tanzania	846,800	1,241,695	9,935,400	194,124	150,195
Timor-Leste	-	12,000	240,000	2,000	79,902
Togo	4,810,000	59,672	495,400	-	261,468
Uganda	35,316,096	258,060	8,235,050	48,300	258,123
Uzbekistan	-	-	701,600	2,408,900	1,989,949
Vietnam	-	-	-	1,005,000	-
West Bank and Gaza	-	-	-	-	-
Western Sahara	-	-	-	-	-
Yemen Rep	5,256,000	25,536	14,300	75,000	8,386,917
Zambia	66,167,400	245,900	3,399,400	13,000	3,770,375
Zimbabwe	132,879,280	98,500	889,100	1,900	9,400,083
Other FP2020 Shipment Volumes	85,564,584	1,564,900	352,600	113,550	62,288,739

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, March 2016.

## APPENDIX B — DATA SOURCES

Prior to the development of market analyses, CHAI reviewed various data sources from partner organizations that provide family planning market data at the global level. CHAI assessed these databases based on available metrics, coverage of countries, frequency of updates, and ease of access to identify the most appropriate sources for sustainable analyses, with the ability to be updated as new data became available. The following provides an overview of the data sources CHAI relied upon for market analyses:

### **Procurement Planning and Monitoring Report (PPMR):<sup>30</sup>**

Produced monthly by the USAID | DELIVER Project, this online database provides information on consumption and current/desired stock levels of contraceptive products on a country-by-country basis for 33 countries. Data is provided by MOHs or USAID partners (Abt Associates, USAID | DELIVER Project), SMOs (MSI, PSI), and UNFPA.

### **Reproductive Health Interchange (RHI):<sup>31</sup>**

Hosted by UNFPA, RHI collects data on past and upcoming contraceptive volume shipments for over 140 countries from the central procurement offices of major contraceptive donors and procurers. This

database is updated at variable times that depend on the frequency of data submissions from the data provider. RHI reflects all of UNFPA's and USAID's contraceptive purchases, MSI's and IPPF's central procurements, and a few other procuring organizations' purchases. For this report, the full RHI data was downloaded in March 2016.

### **FP2020 Global Markets Visibility Project:**

In early 2014, CHAI, in partnership with RHSC and the FP2020 Market Dynamics Working Group, launched the Global Markets Visibility Project to help various donors, suppliers, and partners improve their understanding of the current market size and trends for key contraceptive markets. CHAI signed MOUs with six contraceptive manufacturers and received historical shipment data by product and country for each of the 69 FP2020 focus countries. CHAI has partnered with Concept Foundation to collect and aggregate shipment data from participating members of the RHSC Generic Manufacturers for Reproductive Health Caucus (GEMs). To date, the Global Markets Visibility Project has collected historical shipment data that covers institutional sales (USAID, UNFPA, MSI, etc.) and MOH tender volumes from 13 manufacturers across five family planning product categories.

30. RHSC, "Procurement Planning and Monitoring Report," available at <http://ppmr.rhsupplies.org/content?id=1>.

31. AccessRH, "What is RHInterchange?" UNFPA, available at <https://www.unfpaprocurement.org/rhi-home>.

## APPENDIX C — ESTIMATING THE TOTAL FP2020 PUBLIC SECTOR MARKET SIZE

The FP2020 public sector market size was constructed using the best available data sources: historical supplier-reported shipment data and RHI shipment data. Within the RHI shipment data, the suppliers participating in the Global Markets Visibility Project held 96 percent or more of shipment volumes<sup>32</sup> in every category with the exception of IUDs, where suppliers held 50 percent of the volumes (Exhibit C.1.). As CHAI continues to engage suppliers, the focus will be on categories where there are less coverage (i.e. male condoms and IUDs).

The historical supplier-reported shipment data captured a more comprehensive view of the FP2020 public sector market for female condoms, implants, injectables, IUDs, and orals relative to RHI and thus, served as the primary data source for these product markets. Because CHAI has not yet received male condom data from any suppliers, RHI

data was relied upon for the male condom volumes. The data is quantified by the units of measurement outlined in Exhibit C.2.

The following section describes the data source and market size estimation in more detail.

### Historical Supplier-Reported Data

To date, the Global Markets Visibility Project has collected historical supplier-reported shipment data from 13 manufacturers – Bayer, Cipla, CR Zizhu, Cupid, Female Health Company, Helm AG, Mylan, Merck/MSD, Pfizer, Pregna, PT Tunggol, Shanghai Dahua, and SMB. Collectively, the total volumes cover institutional sales (USAID, UNFPA, MSI, etc.) and MOH tenders across five family planning product categories.<sup>33</sup>

EXHIBIT C.1: GLOBAL MARKETS VISIBILITY PROJECT PARTICIPATING SUPPLIER VOLUMES WITHIN RHI BY METHOD				EXHIBIT C.2: UNIT OF MEASUREMENT	
METHOD	69 FP2020 COUNTRIES VOLUMES 2011 – 2015	PARTICIPATING SUPPLIER RHI VOLUMES 2011 – 2015	% OF TOTAL METHOD VOLUMES	METHOD	UNIT OF MEASURE
Condoms - Female	114,261,654	114,027,654	100%	Condoms - Female	Piece
Implants	25,228,266	24,952,738	99%	Condoms - Male	Piece
Injectables	324,478,252	312,707,450	96%	Implants	Set
IUDs	22,080,215	11,150,275	50%	Injectables	Vial
Orals	606,772,825	590,118,863	97%	IUDs	Piece
<b>Total</b>	<b>1,092,821,212</b>	<b>1,052,956,980</b>	<b>96%</b>	Orals - Combined	Cycle
				Orals - Progestin Only	Cycle
				Orals - Emergency	Doses

EXHIBIT C.3: GLOBAL MARKETS VISIBILITY PROJECT PARTICIPANTS AND PRODUCTS					
MANUFACTURER	CONDOMS - FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Bayer		•	•		•
Cipla					•
CR Zizhu					•
Cupid	•				
Female Health Company	•				
Helm AG	•		•		
Mylan			•	•	•
Merck/MSD		•			•
Pfizer			•		
Pregna				•	
PT Tunggol			•		•
Shanghai Dahua		•			
SMB				•	

Sources: [1] RHI Shipment Data, March 2015

32. Shipment volumes were calculated as cumulative from 2011 to 2015.

33. Total shipment of oral contraceptives includes combined, progestin-only, and emergency oral contraceptives.

## APPENDIX C — ESTIMATING THE TOTAL FP2020 MARKET SIZE

### Aggregating across female condoms, implants, injectables, IUDs, and orals in the 69 FP2020 countries and methods, suppliers have shipped an average of 406 million units of family planning commodities annually from 2011 to 2015.<sup>34</sup>

It is important to note that there were several shipments to procurer (USAID, UNFPA, SMOs) warehouses in non-FP2020 countries, such as Belgium, Denmark, France, Germany, Netherlands, Norway, Sweden, Switzerland, UK, and US. Although these volumes were shipped to non-FP2020 countries, the end shipment destination of these volumes would likely be the 69 FP2020 countries. As a result, these non-FP2020 country volumes were included in the total shipments to 69 FP2020 countries after it was confirmed that the specific non-FP2020 country volumes were associated with institutional purchases.

CHAI analyzed and assessed the aggregated historical supplier-reported shipment data to confirm the coverage across various FP2020

product markets was greater relative to RHI shipment data for the 69 FP2020 countries. The aim of collecting historical volumes of all institutional purchases and MOH tenders directly from suppliers was to address data gaps observed in RHI shipment data which only captures a subset of procurers who choose to submit historical procurement data. Further, although some countries report national procurements, most national procurements are not reported into the RHI database. When compared to RHI, the total historical supplier-reported shipment volumes to 69 FP2020 countries and procurer warehouses is consistently greater than RHI volumes across four family planning methods: implants, injectables, IUDs, and orals.<sup>35</sup> Thus, for these product markets, the supplier-reported shipment data captures a more comprehensive view of the family planning market in the 69 FP2020 countries. For female condoms, the RHI volumes are actually greater than supplier shipment data in 2013 and 2014, however the difference is relatively small in 2014.

EXHIBIT C.4: SUPPLIER-REPORTED SHIPMENT VOLUMES TO FP2020 COUNTRIES BY METHOD, 2011–2015

METHOD	2011	2012	2013	2014	2015
Condoms – Female	20.0 M	18.9 M	17.4 M	25.1 M	25.3 M
Implants	3.1 M	5.8 M	6.1 M	6.2 M	10.2 M
Injectables	73.3 M	109.1 M	93.7 M	111.4 M	97.0 M
IUDs	10.3 M	9.1 M	8.1 M	8.8 M	9.9 M
Orals - Combined & Progestin Only	311.0 M	319.5 M	283.4 M	267.5 M	147.6 M
Orals - Emergency	3.0 M	10.9 M	4.9 M	4.9 M	6.5 M
<b>Total</b>	<b>420.7 M</b>	<b>473.1 M</b>	<b>413.6 M</b>	<b>423.9 M</b>	<b>296.4 M</b>

Source: [1] Historical Supplier-Reported Shipment Data.

34. Negative volumes have been included or excluded based on supplier confirmation. Volumes with no associated shipment destination have been excluded.

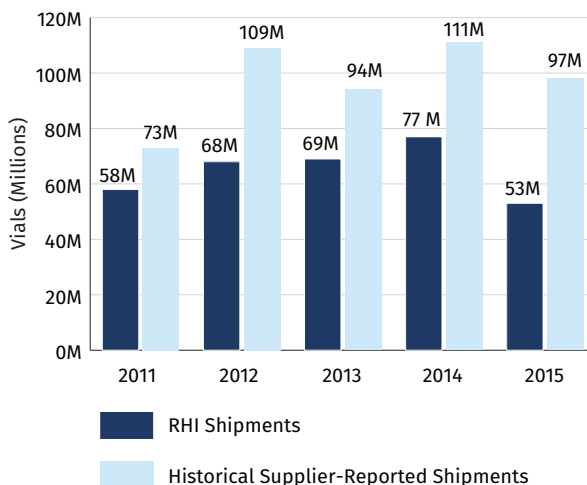
35. Similar to the historical supplier-reported shipment totals, RHI volumes to Belgium, Denmark, Germany, France, Netherlands, Norway, Sweden, Switzerland, UK, and the US are included in the total. For the UK, shipments to IPPF or MSI warehouses are included in total volumes. For Belgium, Denmark, Germany, France, Netherlands, Norway, Sweden, Switzerland, UK, and the US, shipments funded or procured by USAID and UNFPA are included in total volumes. We assume the end shipments destination of these volumes are likely to the 69 FP2020 countries and thus, include the volumes in the total FP2020 market estimate.

**EXHIBIT C.5: RHI VS. SUPPLIER-REPORTED SHIPMENT VOLUMES TO FP2020 COUNTRIES BY METHOD, 2011-2015**

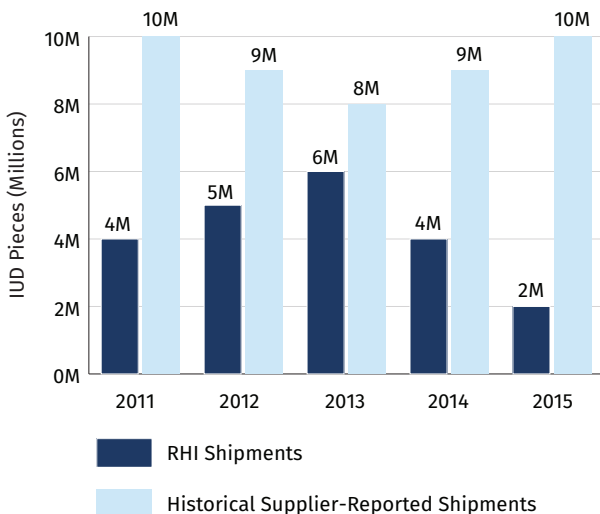
**IMPLANTS**



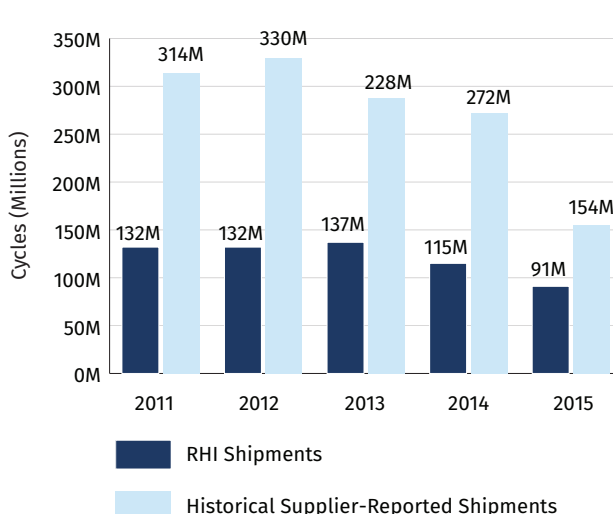
**INJECTABLES**



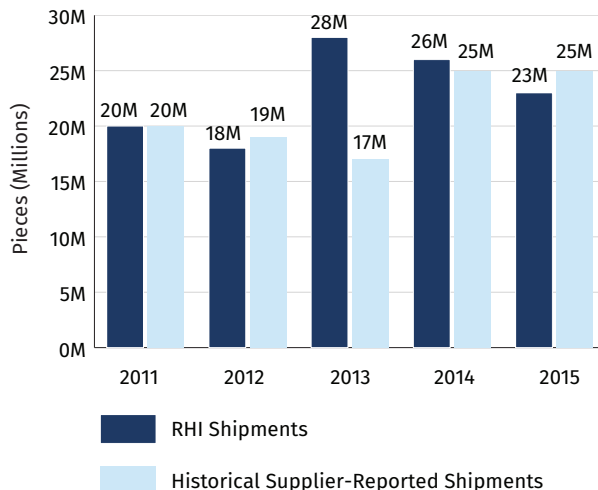
**IUDS**



**ORALS**



**CONDOMS - FEMALE**



Sources: [1] Historical Supplier Shipment Data; [2] RHI Shipment Data, March 2016.

## APPENDIX C — ESTIMATING THE TOTAL FP2020 MARKET SIZE

### Male Condom Market

Because CHAI has not yet received data from male condom suppliers, historical RHI shipment data for male condoms is used to capture a more comprehensive view of the family planning market for the 69 FP2020 countries. We use RHI shipment volume data from 2011 to 2015 and include all male condom shipment volumes to 69 FP2020 countries as well as volumes associated with procurer warehouses in non-FP2020 focus countries.<sup>36</sup> The male condom market reflected by the RHI data includes 20 manufacturers and 18 funding sources.

The historical supplier-reported volumes for female condoms, implants, injectables, IUDs, and orals, together with RHI shipment volumes for male condoms, represent the estimated FP2020 public sector market from 2011 to 2015.

EXHIBIT C.6: RHI MALE CONDOM SHIPMENT VOLUMES, 2011–2015

METHOD	2011	2012	2013	2014	2015
Condoms - Male	1.62 B	1.84 B	1.57 B	1.39 B	1.39 B

EXHIBIT C.7: 69 FP2020 CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2011–2015

METHOD	2011	2012	2013	2014	2015
Condoms – Female	20.0 M	18.9 M	17.4 M	25.1 M	25.3 M
Condoms – Male (RHI)	1623.1 M	1842.0 M	1570.7 M	1391.3 M	1390.7 M
Implants	3.1 M	5.8 M	6.1 M	6.2 M	10.2 M
Injectables	73.3 M	109.1 M	93.7 M	111.4 M	97.0 M
IUDs	10.3 M	9.1 M	8.1 M	8.8 M	9.9 M
Orals – Combined & Progestin Only	311.0 M	319.5 M	283.4 M	267.5 M	147.6 M
Orals – Emergency	3.0 M	10.9 M	4.9 M	4.9 M	6.5 M
<b>Total</b>	<b>2043.8 M</b>	<b>2315.1 M</b>	<b>1984.3 M</b>	<b>1815.2 M</b>	<b>1687.1 M</b>

Source: [Exhibit C.6] RHI Shipment Data, March 2016. Source: [Exhibit A.7] Historical Supplier-Reported Shipment Data; RHI Shipment Data, March 2016.

36. Total yearly volumes are based on the year that the product was shipped.

## APPENDIX C — ESTIMATING THE TOTAL FP2020 MARKET SIZE

### Total FP2020 Public Sector Market In Terms of Users

CHAI translated shipment volumes to users by estimating the volumes consumed and converting to users based on a couple-years of protection (CYP) factor. First, CHAI converted all shipment volumes to consumption using a method-specific consumption-to-shipment conversion based on a ratio of consumption (via PPMR) to shipment volumes (via RHI).<sup>37</sup> Next, CHAI estimated users by dividing consumption by the corresponding CYP factor published by USAID. CYP is the estimated protection provided by contraceptive methods during a one-year period based upon the volume of all methods sold or distributed for free to clients during that period of time.<sup>38</sup> Because various methods may have different CYPs associated with different sub-types of that method (e.g. there are different CYP factors for three-, four-, and five-year implants), the corresponding CYP of the method sub-type is used. The following exhibit shows the conversion factors used to translate volumes to users.

Previously CHAI used a single consumption-to-shipment factor for each method, across all three years from 2011 to 2013, based on just 2013 data due to limited availability of consumption data prior to 2013.<sup>39</sup> To incorporate recent trends in consumption and smooth out year-to-year fluctuations, CHAI has revised the methodology to calculate the factor based on a rolling three-year average, as far as the data availability allows. Therefore, the consumption-to-shipment factor for 2014 and 2015 was calculated by taking a weighted average across two years<sup>40</sup> and three years<sup>41</sup> of data respectively. In addition, CHAI adopted a robust mechanism to exclude country outliers where there may be a lack of reporting or data visibility, defined as when PPMR consumption volumes exceeds five times the RHI volume over the three-year period. The impact of the revised approach on 2011 to 2013 total users, using the same dataset from the previous report,<sup>42</sup> is reflected in the exhibit below.

EXHIBIT C.8: VOLUMES TO USERS CONVERSION FACTORS, 2011–2015				
METHOD	CONSUMPTION TO SHIPMENT			COUPLE-YEARS OF PROTECTION (CYP)
	2011-2013	2014	2015	1/CYP
Condoms - Female	1.34	1.24	1.19	120.00
Condoms - Male	1.22	1.24	0.91	120.00
Implants - 3 Year	1.57	1.27	1.38	0.40
Implants - 4 Year	1.57	1.27	1.38	0.31
Implants - 5 Year	1.57	1.27	1.38	0.26
Injectables - 1 month	0.79	0.86	0.75	0.08
Injectables - 2 month	0.79	0.86	0.75	0.17
Injectables - 3 month	0.79	0.86	0.75	0.25
IUDs	1.30	1.82	1.33	0.22
Orals – Combined	1.39	1.15	1.10	15.00
Orals – Progestin Only	1.47	0.83	0.73	15.00
Orals – Emergency	0.83	0.20	0.23	20.00

EXHIBIT C.9: IMPACT OF CONSUMPTION TO SHIP FACTOR CHANGE		
YEAR	OLD METHODOLOGY - USERS	NEW METHODOLOGY - USERS
2011	84,520,196	91,999,536
2012	100,716,160	106,074,189
2013	89,667,175	93,473,726

Sources: **[Exhibit C.8]** [[1] PPMR Data, March 2016; [2] RHI Shipment Data, March 2016; [3] USAID, "Couple-Years of Protection (CYP)," March 2016. **[Exhibit C.9]** Sources: [1] Historical Supplier Shipment Data.

37. The consumption-to-shipment conversion is based on the understanding that what is shipped is not always consumed. For further details see Appendix C.  
 38. USAID, "Couple-Years of Protection (CYP)", April 2014, available at <http://www.usaid.gov/what-we-do/global-health/family-planning/couple-years-protection-cyp>  
 39. PPMR Data has been collected since 2008 and has grown to include more countries over time; in 2011, 19 countries reported into PPMR, this number has grown to 33 countries to-date.

40. Weighted Average of 2013 and 2014 Shipment over Consumption data.  
 41. Weighted Average of 2013, 2014 and 2015 Shipment over Consumption data.  
 42. The previous report only had supplier-reported shipment volumes from 11 suppliers vs. 13 suppliers in this iteration of the report.

## APPENDIX C — ESTIMATING THE TOTAL FP2020 MARKET SIZE

### Total FP2020 Public Sector Market Size

The total value of contraceptives is calculated by applying average unit prices to total shipment volumes. Average unit prices by method and year are based on the average price between USAID and UNFPA as reported in UNFPA's Contraceptive Price Indicator. Although there are different prices for different products and markets, we estimate implied spend using UNFPA's Contraceptive Price Indicator prices for simplicity.<sup>43</sup> Finally, the Implant Access Program price of US\$8.50 is applied to

implant volumes from 2013 to 2015. The average price only includes the cost of the product and does not account for additional costs associated with procurement such as testing, insurance, and shipping costs.

To maintain consistency across dollar-value comparisons, this average pricing was applied to all market size and donor-funding trends across supplier-reported and RHI reported volumes. As a result, numbers may differ from the RHI reported value field.

EXHIBIT C.10: AVERAGE UNIT PRICE

Method	PRICE RANGE		2011	2012	2013	2014	2015*
	Minimum	Maximum	Unit Price	Unit Price	Unit Price	Unit Price	Unit Price
Condoms - Female	\$0.53	\$0.56	\$0.56	\$0.55	\$0.54	\$0.53	\$0.52
Condoms - Male	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03
Implants	\$8.50	\$18.65	\$18.65	\$17.98	\$8.50	\$8.50	\$8.50
Injectables	\$0.81	\$0.83	\$0.82	\$0.82	\$0.83	\$0.81	\$0.81
IUDs	\$0.43	\$0.48	\$0.43	\$0.43	\$0.43	\$0.48	\$0.47
Orals - Combined	\$0.28	\$0.31	\$0.31	\$0.30	\$0.28	\$0.30	\$0.28
Orals - Progestin Only	\$0.31	\$0.32	\$0.32	\$0.32	\$0.31	\$0.31	\$0.32
Orals - Emergency	\$0.34	\$0.49	\$0.34	\$0.49	\$0.44	\$0.30	\$0.37

\* UNFPA 2015 pricing is an average of UNFPA 2015 prices and USAID 2014 prices as USAID 2015 prices were unavailable.

Notes: [1] For 2013-2015 implants, the Implant Access Program price is used; [2] The range and average unit price in each corresponding is based on average USAID and UNFPA prices via UNFPA's Contraceptive Price Indicators Sources: [1] UNFPA Contraceptive Price Indicator, 2011–2015; [2] IAP Implant Prices.

43. UNFPA, "UNFPA Contraceptive Price Indicator –Year 2015," available at: [https://www.unfpa.org/sites/default/files/resource-pdf/UNFPA\\_Contraceptive\\_Price\\_Indicators.pdf](https://www.unfpa.org/sites/default/files/resource-pdf/UNFPA_Contraceptive_Price_Indicators.pdf), "UNFPA Contraceptive Price Indicator –Year 2014," available at <http://www.unfpa.org/resources/contraceptive-price-indicator-2014>, "UNFPA Contraceptive Price Indicators – 2013," available at

<http://www.unfpa.org/sites/default/files/resource-pdf/UNFPA%20Contraceptive%20Price%20Indicators%20-%202013.pdf>, "UNFPA Contraceptive Price Indicators – 2012," available at <http://www.unfpa.org/sites/default/files/resource-pdf/UNFPA%20Contraceptive%20Price%20Indicators%20-%202012.pdf>, "UNFPA Contraceptive Price Indicators – 2011," UNFPA.



## APPENDIX D – ESTIMATING TOTAL FP2020 DONOR-FUNDED VOLUMES

To protect customer confidentiality, suppliers were not asked to disclose customer information associated with shipment volumes. Instead, CHAI relied upon RHI to estimate the donor-funded volumes and in turn, users and costs. RHI data contains shipment volume data reported by central procurement offices of major contraceptive orders and other organizations that procure contraceptives. This includes organizations such as IPPF, MSI, PSI, USAID, and UNFPA. From 2011 to 2015, the following funding sources are associated with shipment volumes to 69 FP2020 countries and shipment volumes to procurer warehouses that are reported into RHI:

For the purposes of this analysis, national procurements identified as “OTHERGOV” and “MOH” as well as unknown funding sources identified as “OTHER” have been excluded. These may include volumes associated with UNFPA third party procurements or SMOs procurements using unidentified funding sources. It is important to note that RHI only includes data for procurement agencies that are data providers. There may be other donor-funded procurements that are not reported into RHI.

EXHIBIT D.1: FP2020 FUNDING SOURCES REPORTING TO RHI, 2011–2015

FUNDING SOURCES		
AFDB	IPPF	PSI
BMGF	KFW	UNDP
CDC	MOH	UNFPA
DFID	MSI	UNPEACE
DKT	NETHERLANDS	USAID
GLOBALFUND	OTHER	USDOD
ICA	OTHERGOV	WORLDBANK
IPPF	UNDP	

## APPENDIX E – COUNTRY HIGHLIGHTS: BANGLADESH, INDONESIA, AND INDIA

CHAI conducted supplementary research and analysis using publicly available sources of data in three large markets: Bangladesh, India, and Indonesia—key countries accounting for the largest proportion of the gap based on country-specific comparisons between FP2020-reported users on product-based and users implied by the shipment data. Due to the limitations of these data sources, CHAI cannot confirm comprehensive coverage of the public sector markets in these countries; rather, the data is meant to be used as initial confirmation of local and regional procurement in these markets that are not covered by the suppliers participating in this report.

### Bangladesh

CHAI used data from the Government of Bangladesh’s Ministry of Health and Family Welfare (MOHFW)<sup>44</sup> for fiscal year 2014/2015.<sup>45</sup> The data was further vetted through conversations with in-country experts from Management Sciences for Health.

EXHIBIT E.1: MOHFW SUPPLY CHAIN CONTRACEPTIVE SHIPMENT RECEIPT DETAILS

PRODUCT NAME	SUPPLIER NAME	SUM OF QUANTITY
Condom	ESSENTIAL DRUGS CO. LTD.	50,000,000
Condom	KHULNA ESSENTIAL LATEX PLANT((KELP)	100,000,000
Ecp (2 Tab/Pack)	M/S, RENETA LTD.	100,000
Implant (Single Rod)	MSD-NV Organon, Organon(India) Private Ltd.	50,000
Injectables (DMPA)	Helm-AG	14,000,000
Injectables (DMPA)	TECHNO DRUGS Ltd	2,500,000
Oral Contraceptive Pill (Shukhi)	HLL Lifecare Limited	22,469,025
Oral Contraceptive Pill (Shukhi)	M/S, RENETA LTD.	20,730,975
Oral Contraceptive Pill (Shukhi)	Maneesh Pharmaceuticals Limited	22,289,280
Oral Contraceptive Pill (Shukhi)	Popular Pharmaceuticals Ltd.	10,800,000
Oral Contraceptive Pill (Shukhi)	TECHNO DRUGS Ltd	1,710,720
Oral Pill Apon	M/S, RENETA LTD.	1,000,000

Source: Bangladesh MOHFW, Supply Chain Management Portal, 2016.

44. Government of Bangladesh, Ministry of Health and Family Welfare, “MOHFW Supply Chain Management Portal – National Receive Details; Product Group: Contraceptive; Product Name: ALL; Warehouse: ALL” available at: <https://scmpbd.org/index.php/wims-reports/national-receive-details>.

45. The fiscal year for Bangladesh runs from July 1 to June 30, as such 2015/2016 figures were not included in this analysis as the reported data is not a full fiscal year.

## APPENDIX E – COUNTRY HIGHLIGHTS: BANGLADESH, INDONESIA, AND INDIA

### India

CHAI looked at data from the Indian Government's MOHFW Annual Reports<sup>46</sup> for fiscal years 2013/2014 and 2014/2015<sup>47</sup> for the India market. The MOHFW distributes contraceptives to the states/UTs through Free Supply Scheme and Social Marketing Scheme; only modern contraceptive methods including condoms,<sup>48</sup> oral pills (orals – combined), IUDs, and ECPs (orals – emergency) are included in this analysis. While the

MOHFW Annual Reports do not record who the awarded suppliers are, a report from USAID has identified local suppliers and the contraceptives they supply to the government and SMO programs as of 2006, including: Indian Drug and Pharmaceutical Ltd. (IDPL), HLL Lifecare Limited, Pharmasia, Pregna International, SMB Corporation, Cipla, Win-Medicare, and Famy Care, which is now Mylan.

### EXHIBIT E.2: ANNUAL REPORT OF DEPARTMENT OF HEALTH & FAMILY WELFARE FOR THE YEAR OF 2014-15

EXHIBIT E.2.1: QUANTITIES SUPPLIED TO STATES/UTS			
CONTRACEPTIVES	2012-13	2013-14	2014-15 (UP TO NOV.14)
Condoms (In million pieces)	367.86	394.00	176.00
Oral Pills (In lakh cycles)	226.79	361.24	102.84
IUDs (In lakh pieces)	87.50	60.42	45.88
Tubal Rings (In lakh pairs)	31.22	19.00	15.76
ECP (in lakh packs)	75.91	75.80	58.62
Pregnancy Test Kits (in lakhs)	222.18	100.14	102.38

EXHIBIT E.2.2: PERFORMANCE OF SOCIAL MARKETING PROGRAMME IN THE SALE OF CONTRACEPTIVE				
CONTRACEPTIVES	2011-12	2012-13	2013-14	2014-15 (UP TO OCT. 2014)
Condoms (Million pieces)	677.91	618.18	698.33	366.30
Oral Pills (Social Marketing) (lakh cycles)	471.97	376.82	290.27	109.48
SAHELI	244.56	270.76	279.35	11.47*

\*Figures are Provisional

EXHIBIT E.2.3: EMERGENCY CONTRACEPTIVE PILLS [ECP]				
CONTRACEPTIVES	2011-12	2012-13	2013-14	2014-15 (UP TO OCT. 2014)
ECP	75.91	75.80	75.80	366.30

Source: India MOHFW Annual Report, 2014-2015.

46. Government of India, Ministry of Health and Family Welfare, "Annual Report of Department of Health & Family Welfare for the year of 2014-15" available at: <http://www.mohfw.nic.in/index1.php?lang=1&level=2&sublinkid=5253&lid=3215>; "Annual Report of Department of Health & Family Welfare for the year of 2013-14" available at: <http://www.mohfw.nic.in/index2.php?lang=1&level=2&sublinkid=4454&lid=2939>

47. The fiscal year for India runs from April 1 to March 31, as such 2014/2015 figures were not included in this analysis as the reported data is not a full fiscal year.

48. Condoms are reported in millions whereas all other methods are reported as "lakh" – the Indian unit of 100,000

## APPENDIX E – COUNTRY HIGHLIGHTS: BANGLADESH, INDONESIA, AND INDIA

### EXHIBIT E.3: ANNUAL REPORT OF DEPARTMENT OF HEALTH & FAMILY WELFARE FOR THE YEAR OF 2013-14

EXHIBIT E.3.1: QUANTITIES SUPPLIED TO STATES/UTS				
CONTRACEPTIVES	2010-11	2011-12	2012-13	2013-14
Condoms (In million pieces)	290.137	295.000	367.866	234.271
Oral Pills (In lakh cycles)	237.998	298.135	226.793	205.573
IUDs (In lakh pieces)	90.000	73.500	87.508	34.005
Tubal Rings (In lakh pairs)	34.534	30.359	31.22	18.274
ECP (in lakh packs)	21.540	18.300	75.919	14.098
Pregnancy Test Kits (in lakhs)	211.74	21174	222.186	0.00

EXHIBIT E.3.2: QUANTITIES SUPPLIED TO STATES/UTS				
CONTRACEPTIVES	2010-11	2011-12	2012-13	2013-14 (UP TO SEPT. 2013)
Condoms (Million pieces)	581.44	677.91	618.18	315.19
Oral Pills (Social Marketing) (lakh cycles)	358.08	471.975	376.82	124.79
SAHELI Weekly Oral Pill (in lakh tablet)	234.31904	244.56	270.76	0.042*

\*Figures are Provisional

EXHIBIT E.3.3: EMERGENCY CONTRACEPTIVE PILLS [ECP]				
CONTRACEPTIVES	2010-11	2011-12	2012-13	2013-14 (UP TO SEPT. 2013)*
ECP	21.54	18.30	75.919	14.098

\*Figures are Provisional

### EXHIBIT E.4: LOCAL MANUFACTURERS & THEIR PRODUCTS IN INDIA\*

EXHIBIT E.4: LOCAL MANUFACTURERS & THEIR PRODUCTS IN INDIA*	
METHOD	SUPPLIER NAME
Condoms	HLL Lifecare Limited
Injectables	HLL Lifecare Limited Famy Care (Mylan)
IUDs	Pregna International SMB Corporation Famy Care (Mylan)
Orals	Indian Drug and Pharmaceutical Ltd. (IDPL) HLL Lifecare Limited Phaarmasia Famy Care (Mylan) Win-Medicare Cipla

\* USAID, "Assessment of India's locally manufactured contraceptive product supply", 2006, available at: [http://pdf.usaid.gov/pdf\\_docs/Pnadt989.pdf](http://pdf.usaid.gov/pdf_docs/Pnadt989.pdf)

## APPENDIX E – COUNTRY HIGHLIGHTS: BANGLADESH, INDONESIA, AND INDIA

### Indonesia

For the Indonesian market, CHAI looked at the awarded government tender documents from the National Family Planning Coordinating Body (BKKBN)<sup>49</sup> for 2015 and summed the quantities by method. These documents refer to distributors rather than manufacturers due to the nature of the public sector supply chain in Indonesia. While the tender documents do not record who the awarded suppliers are, additional

research identified locally-based manufacturers of contraceptives in Indonesia and the products they supply, including: PT Tunggol, PT Kimia Farma, PT Sunthi Sepuri, PT Harsen, PT Pratapa-Nirmala Fahrenheit, PT Triyasa, PT Catur Dakwah Crane, and PT Mitra Rajawali Bandjaran; among them PT Tunggol is the only supplier participating in this report as part of the GEMS Caucus.

#### EXHIBIT E.5: MULTIPLE TENDER WINNER ANNOUNCEMENTS

YEAR	PRODUCT	DISTRIBUTOR	QUANTITY
2015	Combination Pills	PT Indofarma Global Medika	11,776,656
2015	Combination Pills	PT Perintis Bina Utama Farmasi	15,114,124
2015	Combination Pills	PT Kimia Farma Trading & Distribution	4,042,768
2015	3-month Injectables	PT Indofarma Global Medika	13,019,861
2015	3-month Injectables	PT Trijaya Medika Farma	12,950,506
2015	3-month Injectables	PT Trijaya Medika Farma	13,067,747
2015	3-month Injectables	PT Trijaya Medika Farma	13,497,338
2015	2-rod implants w/ inserters	PT Djaja Bima Agung	164,710
2015	2-rod implants w/ inserters	PT Djaja Bima Agung	166,270
2015	2-rod implants w/ inserters	PT Djaja Bima Agung	192,793
2015	2-rod implants w/ inserters	PT Djaja Bima Agung	172,010

#### EXHIBIT E.6: LOCAL MANUFACTURERS & THEIR PRODUCTS IN INDONESIA

METHOD	SUPPLIER NAME
Condoms	PT Mitra Rajawali Bandjaran
Implants	PT Triyasa PT Catur Dakwah Crane
Injectables	PT Kimia Farma PT Sunthi Sepuri PT Harsen PT Pratapa-Nirmala Fahrenheit PT Triyasa PT Tunggol
IUDs	PT Kimia Farma
Orals	PT Kimia Farma PT Sunthi Sepuri PT Harsen PT Pratapa-Nirmala Fahrenheit PT Triyasa PT Tunggol

Sources: [Exhibit E.5] BKKBN Tender Documents, 2015. [Exhibit E.6] Desk research, including company websites and news articles

49. Family Planning and Reproductive Health Unit, National Family Planning Coordinating Body (BKKBN), Multiple Tender Winner Announcement documents available at <http://lpse.bkkbn.go.id/eproc/>

## APPENDIX F – KEY TERMS AND DEFINITIONS

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### Shipment Volumes

Shipment volumes refers to the amount of a particular contraceptive method that has been transported.

### Demand

Demand refers to the desire for a particular contraceptive method in a country; for the purposes of this report, it is assumed that increased procurement is a result of increased demand from users.

### Total FP2020 Public Sector Market

The total FP2020 public sector market is based on volumes purchased by institutional buyers and MOH or government-affiliated procurers based on RHI data (male condoms) and historical supplier-reported shipment data (female condoms, implants, injectables, IUDs, and orals) for the 69 FP2020 focus countries, defined as countries with a 2010 gross national income (GNI) per capita less than or equal to US\$2,500. Although South Africa made an FP2020 commitment, its GNI per capita was greater than US\$2,500.

### Market Value and Spend

Market value and spend refers to the supplier-reported shipment volume multiplied by the average prices of UNFPA and USAID for the specific years.

### Method Mix

Method mix is the percentage distribution of implied contraceptive users by method.

### Implied Users

Implied users and all users referred to in this report are a measure of the number of women using a contraceptive method that is calculated using a method-specific consumption to shipment factor and corresponding couple-years of protection (CYP) factor. See Appendix C for further details.

### Market Share

Market share is the percentage of total value of shipment volumes in a market captured by a certain contraceptive method.

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## APPENDIX G – ACRONYMS

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CHAI	CLINTON HEALTH ACCESS INITIATIVE
CYP	COUPLE-YEARS OF PROTECTION
FP	FAMILY PLANNING
FP2020	FAMILY PLANNING 2020
GEMS	GENERIC MANUFACTURERS FOR REPRODUCTIVE HEALTH
GNI	GROSS NATIONAL INCOME
IUD	INTRA-UTERINE DEVICE
LAM	LACTATIONAL AMENORRHEA METHOD
LARC	LONG-ACTING REVERSIBLE CONTRACEPTIVES
MOH	MINISTRY OF HEALTH
MOHFW	MINISTRY OF HEALTH AND FAMILY WELFARE
MOU	MEMORANDUM OF UNDERSTANDING
RHSC	REPRODUCTIVE HEALTH SUPPLIES COALITION
RHI	RHINTERCHANGE
USAID	UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
UNFPA	UNITED NATIONS POPULATION FUND