FAMILY PLANNING MARKET REPORT

DECEMBER 2019

ACKNOWLEDGEMENTS:

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

The shipment data provided by suppliers is the foundation of the report's analyses and allows CHAI to address information gaps and construct a comprehensive view of the reproductive health contraceptive product market. We would like to thank current participating suppliers: Bayer, CR Zizhu, Cipla, Cupid, Female Health Company, Helm AG*, Incepta Pharmaceuticals, Merck (MSD), Mylan, Pfizer, Pregna, PT Tunggal, Shanghai Dahua, SMB, and Techno Drugs, as well as our partner, Concept Foundation, for their support in collecting and aggregating 2014-2017** data from the Generic Manufacturers for Reproductive Health (the GEMS Caucus).

We are also grateful to our colleagues from the Coordinated Supply Planning Group (CSP), John Snow Inc. (JSI), United Nations Population Fund (UNFPA), the U.S. Department of International Development (USAID), the Global Health Supply-Chain – Procurement and Supply-Management (GHSC-PSM), and FP2020, for their invaluable feedback during the development and refinement of various market analyses.

*HELM AG was a participating supplier in the FP2020 Global Markets Visibility Project for the FP 2015, 2016, and 2017 Market Reports. In September 2017, HELM AG sold its wholly-owned subsidiary company, HELM Medical GmbH, to Sanavita Pharmaceuticals GmbH. Refer to page 18 for more information on HELM AG and other participating suppliers.
** CHAI collected data directly from suppliers in the GEMs Caucus for the 2018 shipment data.

The scope of the 2019 Family Planning Market Report comprises the total FP2020 public sector market – defined as volumes purchased by institutional buyers (USAID, UNFPA, Social Marketing Organizations, etc.) and Ministry of Health (MOH), or government-affiliated procurers for the 69 FP2020 focus countries.[1] The report is based on the most recent and up-to-date information and methodology covering all product-based modern methods based on historical supplier-reported shipment data collected from 15 suppliers[2] for female condoms, implants, injectables, IUDs, orals (combined and progestin only), and emergency oral contraceptives, and reflects the latest five-year trend. Findings for male condoms are based on data from the Reproductive Health Interchange (RHI).[3]

FROM 2017 TO 2018, THE FP2020 PUBLIC SECTOR MARKET[4] INCREASED IN VOLUME, VALUE, AND CYPS SHIPPED.[5] NOTABLY, CYPS SHIPPED OF IUDS INCREASED SIGNIFICANTLY IN 2018 FROM A HISTORIC LOW IN 2017[6] AND RETURNED TO HISTORICAL LEVELS SEEN OVER THE 2014[7] TO 2016 PERIOD.

WHILE THE OVERALL MARKET VALUE INCREASED FROM 2017 TO 2018, IT REPRESENTS AN OVERALL DECREASE FROM 2014. CONVERSELY, TOTAL CYPS SHIPPED REMAINED RELATIVELY FLAT OVER THE FIVE-YEAR PERIOD, DRIVEN BY A DECREASE IN ORAL CONTRACEPTIVES (COMBINED & PROGESTIN ONLY) AND INJECTABLES[8], AND OFFSET BY AN INCREASE IN IMPLANTS.

This section analyzes trends in shipment volumes, value in USD, and CYPs shipped in the total FP2020 public sector market from 2014 to 2018.[9]

Notable Market Trends

Overall, the value of the public sector market in the 69 FP2020 focus countries decreased from $293 million[10] in 2014 to $226 million in 2018, driven primarily by changes in shipment volumes.[11] The most significant change was observed between 2015 and 2016, where the market value decreased by 29 percent.[12] Since 2016, the value decreased further to $185 million in 2017 before increasing to $226 million in 2018. (Exhibits 1, 2)

CYPs shipped remained relatively level from 2014 to 2018, with the exception of the significant 22 percent annual decrease seen from 2015 to 2017 largely driven by IUDs and partly by injectables. 2017 marked a historical low point for the FP2020 public sector market in terms of CYPs shipped, driven in large part by a decrease in IUDs shipped. In 2018, CYPs shipped of IUDs returned to 2014 to 2016 historical levels. (Exhibit 3)

1. Defined as countries with a 2010 gross national income per capita less than or equal to $2,500.
2. Participating suppliers represent >97 percent of cumulative volumes within each method from 2014 to 2018 of the Reproductive Health Interchange (RHI), with the exception of IUDs and emergency contraceptives, which represent ~50-60 percent; see Appendix C.1 for further details. Additionally, the cumulative total from 2014 to 2018 historical supplier-reported shipment volumes to 69 FP2020 countries and procurer warehouses is greater than RHI in every method; see Appendix C.5 for further details.
3. Supplier shipment data collection does not include male condoms. For more details see Appendix C.
4. The FP2020 Public Sector Market in this report is 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.
5. Couple Years of Protection (CYP) is the estimated protection provided by contraceptive methods during a one-year period e.g. 13 units of a 1-month injectable provide protection for one year. CYPs shipped in this report were calculated by applying a method-specific CYP conversion factor to each method's volumes shipped to FP2020 countries. Volumes shipped are from supplier shipment data. See Appendix C for further details.
6. It should be noted that single-year trends may be attributed in part to the nature of shipment data and factors such as shipment timing and other procurement factors further explored on page 17. As also discussed in RHSC's 2016 Commodity Gap Analysis, general procurement trends "may also reflect a number of factors in addition to user consumption, such as the volume necessary to fill supply pipelines and maintain adequate inventory levels from central warehouses to individual service delivery points. Procurement quantities may take into account the volume of supplies already present or on order, inventory holding policies along the supply chain, and wastage or "leakage" of supplies at various levels. Constraints on funding, price, incentives, plans to expand programs in the future, and preferences by donors or the government itself for particular methods or products may also influence what type, and what volume, of supplies to procure."
7. This report focuses on providing the most recent five-year trend and up-to-date data and methodology. It provides expanded coverage than prior reports with a greater number of participating suppliers.
8. Injectables data from Pfizer include all institutional procurement at the global level, but do not include government-funded orders received and processed in individual countries.
9. The reporting year referenced in this report is January 1 to December 31.
10. The currency reported is in US dollars, unless otherwise noted.
11. Prices used to calculate the value of the market for each method by year are listed in Appendix C.
12. The decrease in market value from 2015 to 2016 was driven by declines in shipment volumes of injectables and orals (combined and progestin only).

Long-acting reversible contraceptives (LARCs) continued to make up a larger proportion of the CYP mix[13] compared to short-acting methods in 2018.[14] LARCs' percentage of the CYP mix has increased since 2014 – LARCs made up 53 percent of the CYP mix in 2014 and this has increased to an average of 66 percent of the CYP mix from 2016 to 2018. (Exhibit 4) CYPs shipped of LARCs increased by 5 percent annually[15] from 2014 to 2018, driven mainly by an increase in CYPs shipped of implants and, to a lesser extent, by an increase in CYPs shipped of IUDs. (Exhibit 3)

Each year from 2014 to 2018, the 10 largest markets for that year have accounted for over 50 percent of the total value of the FP2020 public sector market, with the exception of 2015.[16] While the list of Top 10 markets has fluctuated from year to year, five core countries, Bangladesh, Ethiopia, Nigeria, Uganda, and Zimbabwe, have consistently appeared in the top 10 markets over the 2014 to 2018 period.[17] (Exhibits 5, 6, 7)

Notable Product Trends

Although IUD shipments increased significantly in 2018 from the method's 2017 low, volumes shipped of IUDs in 2018 were in line with the method's 2014 to 2016 historical average.[18] (Exhibit 2) IUDs made up 41 percent of all CYPs shipped in the public sector in 2018, a significant change from 2017 when they accounted for 24 percent, and more in line with the 2014 to 2016 historical average of 40 percent. IUDs have the lowest cost per CYP of the methods covered in this report. (Exhibit 4,8) As a result, an increase in IUD volumes has a larger impact on the FP2020 public sector market in terms of CYPs shipped, but a relatively lesser impact on the market in terms of value. (Exhibits 9, 10)

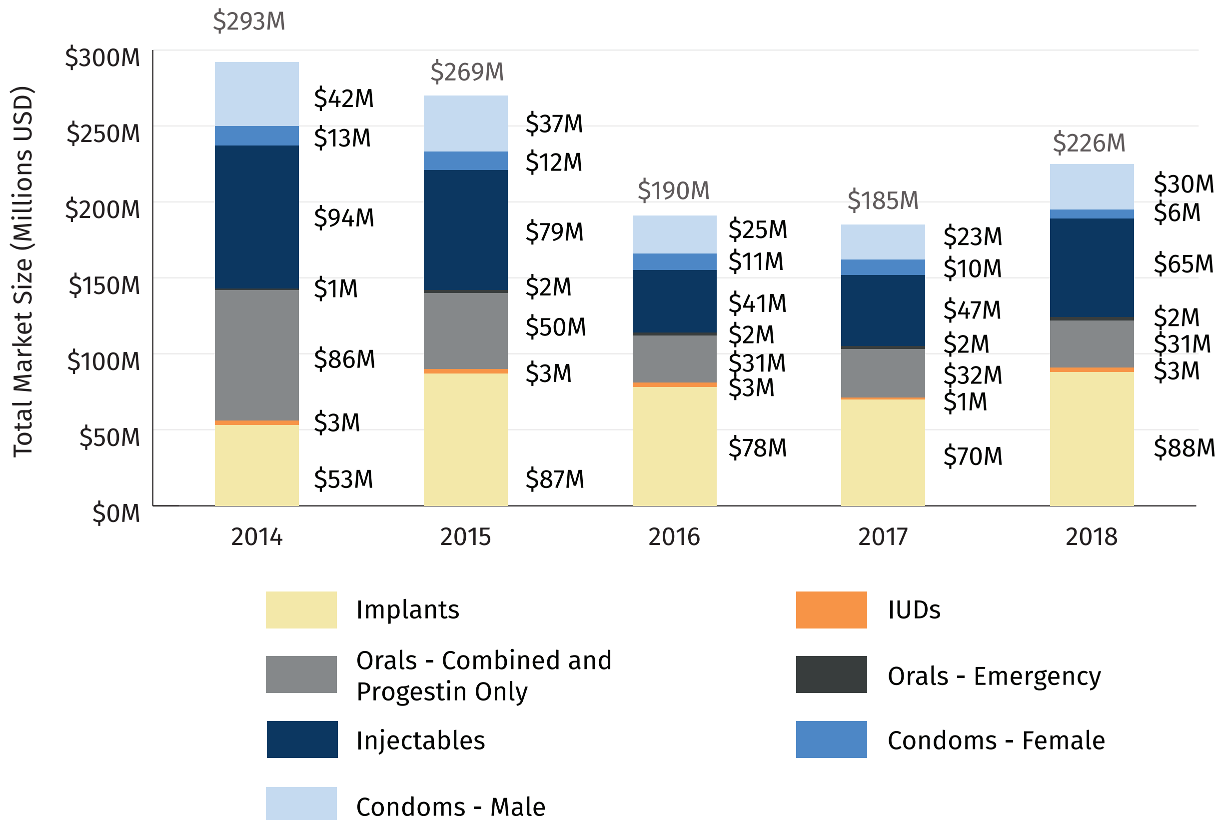
The market value of injectables increased by $19 million[19] from $47 million in 2017 to $65 million in 2018; however, the market value of injectables has not returned to its 2014 high of $94 million. (Exhibit 1)

Implants also saw an increase in market value of $18 million, increasing from $70 million in 2017 to $88 million in 2018. The 2018 market value for implants is the highest since 2014. (Exhibit 1)

Together, implants and injectables constituted the bulk of 2018's overall increase in market value, which was partially offset by a decrease in the market value of female condoms. (Exhibit 1)

13. CYP mix refers to the percentage distribution of CYPs shipped by method.
14. Long-acting and reversible contraceptive methods include IUDs and implants. Short-acting methods include male and female condoms, injectables, orals (combined & progestin only), and emergency oral contraceptives.
15. Where percentage changes are discussed, the Compound Annual Growth Rate (CAGR) is used unless otherwise noted.
16. In 2015, the top 10 markets made up 48 percent of the total value of the FP2020 public sector market.
17. Zambia was part of the top 10 countries that accounted for over 50 percent of the value of the 2017 FP2020 public sector market; however, Zambia is not part of 2018's list of top 10 countries by value.
18. Average CYPs shipped of IUDs from 2014 to 2016 was 46 million CYPs shipped.
19. Calculated numbers may differ slightly than what is represented in the exhibits due to rounding of totals.

EXHIBIT 1: VALUE OF THE FP2020 PUBLIC SECTOR MARKET (USD)



METHOD	YOY* 2017-2018	CAGR** 2014-2018
Implants	26%	14%
IUDs	170%	0%
Orals - Combined & Progestin Only	-3%	-22%
Orals - Emergency	6%	5%
Injectables	40%	-9%
Condoms - Female	-38%	-16%
Condoms - Male	27%	-8%
Total	**22%**	**-6%**

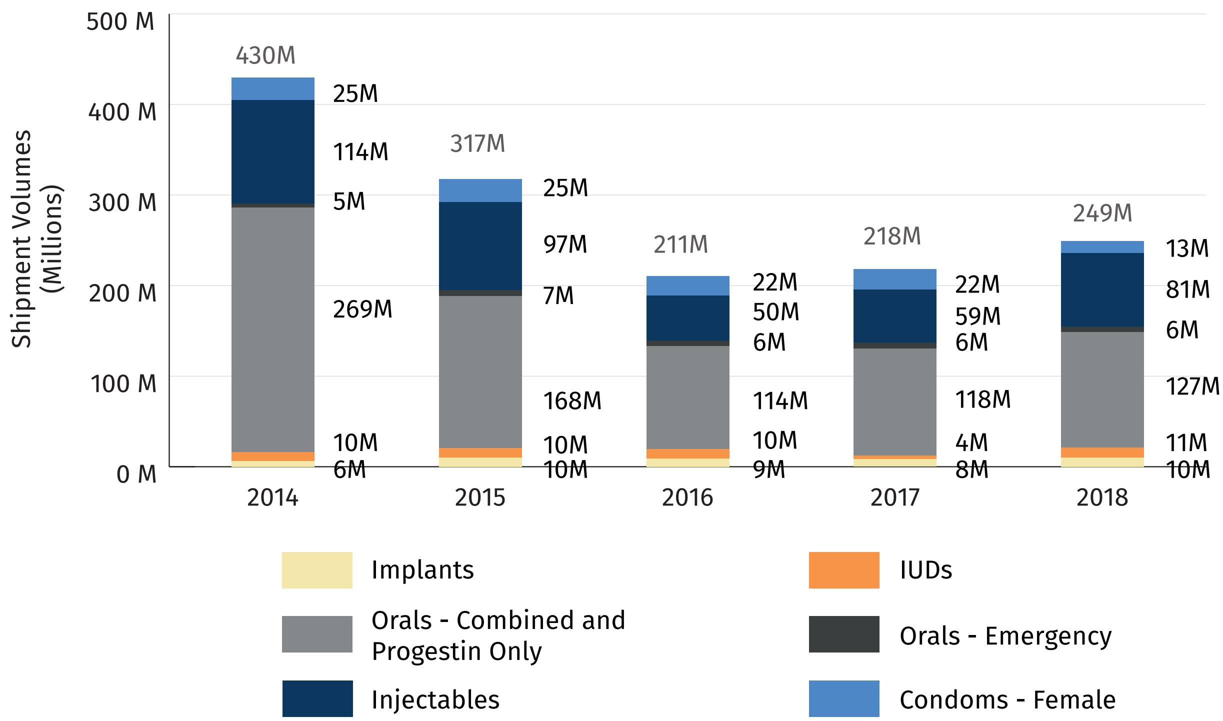
* Year over year (YOY)

** Compound Annual Growth Rate (CAGR)

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, January 2019; [3] UNFPA Contraceptive Price Indicator, 2014–2018; [4] IAP Implant Price

EXHIBIT 2: TOTAL FP2020 MARKET VOLUMES (MALE CONDOMS EXCLUDED)*



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

METHOD	YOY* 2017-2018	CAGR** 2014-2018
Implants	26%	14%
IUDs	172%	2%
Orals - Combined & Progestin Only	7%	-17%
Orals - Emergency	-2%	7%
Injectables	38%	-8%
Condoms - Female	-40%	-15%
Total	**14%**	**(13%)**

MALE CONDOM SHIPMENT VOLUMES (BILLIONS)						
2014	2015	2016	2017	2018	YOY 2017-2018*	CAGR** 2014-2018
1.49B	1.35B	0.99B	1.03B	1.34B	31%	-3%

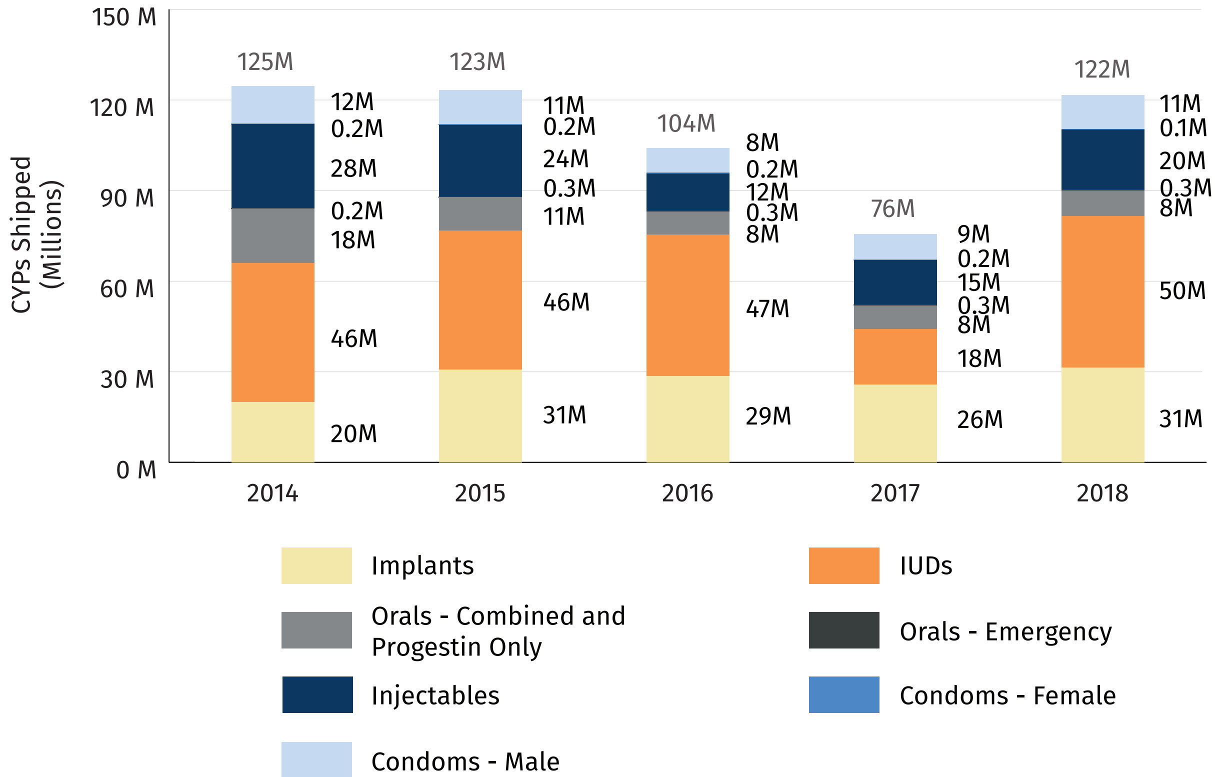
* Year over year (YOY)

** Compound Annual Growth Rate (CAGR)

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, January 2019

EXHIBIT 3: CYPs SHIPPED TO THE FP2020 PUBLIC SECTOR MARKET



METHOD	YOY* 2017-2018	CAGR** 2014-2018
Implants	22%	12%
IUDs	172%	2%
Orals - Combined & Progestin Only	7%	-17%
Orals - Emergency	-2%	7%
Injectables	37%	-8%
Condoms - Female	-40%	-15%
Condoms - Male	31%	-3%
Total	**61%**	**-1%**

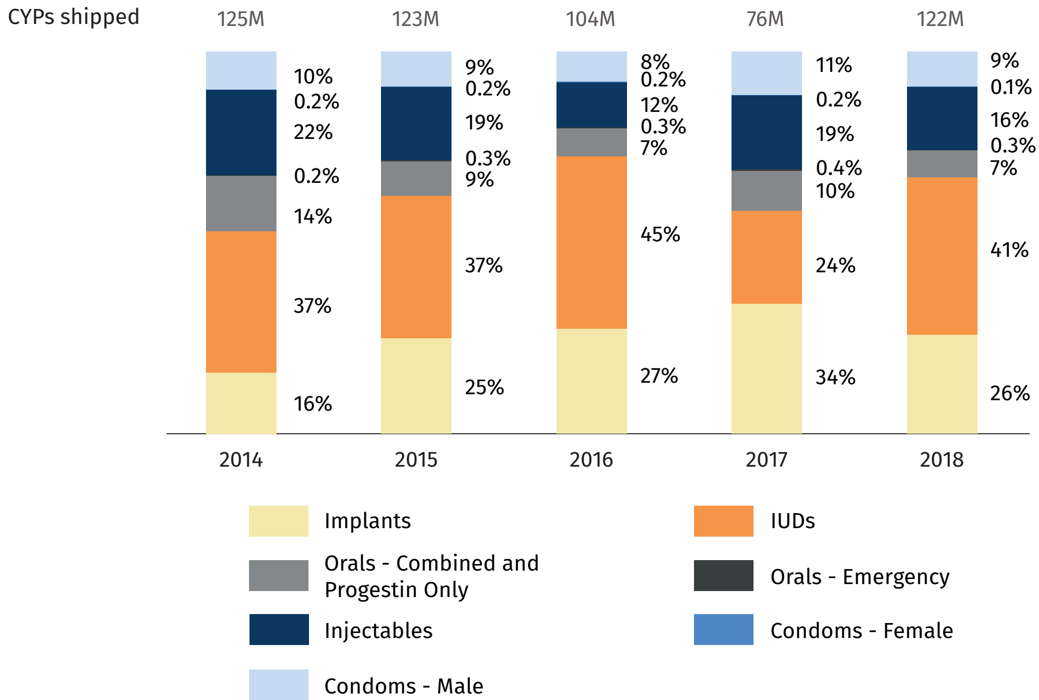
* Year over year (YOY)

** Compound Annual Growth Rate (CAGR)

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

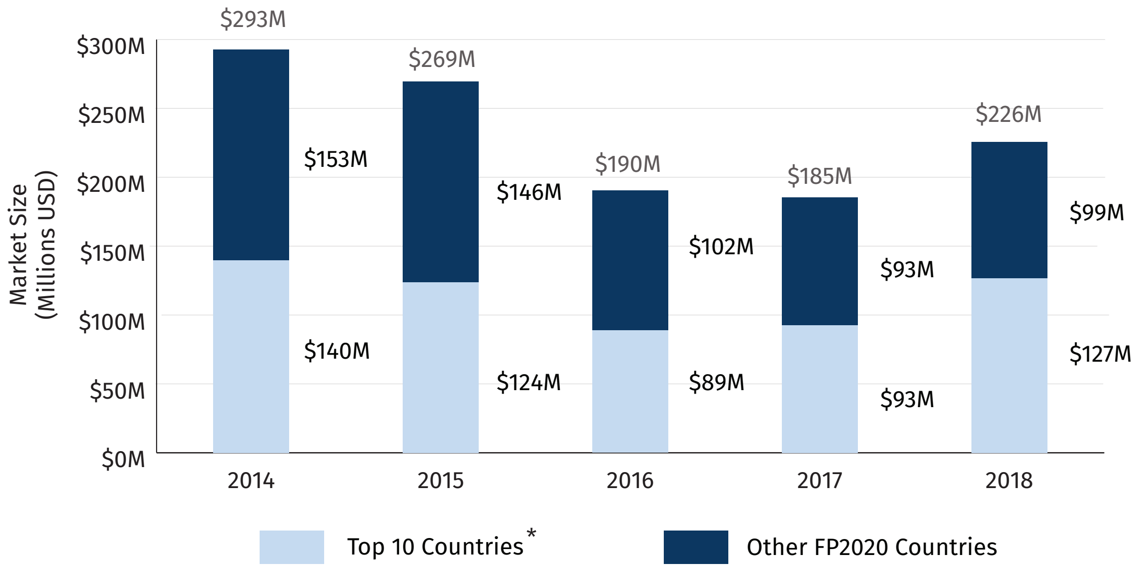
Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, January 2019; [3] USAID, "Couple-Years of Protection (CYP)"

EXHIBIT 4: CYP MIX (IN TERMS OF CYPS SHIPPED)



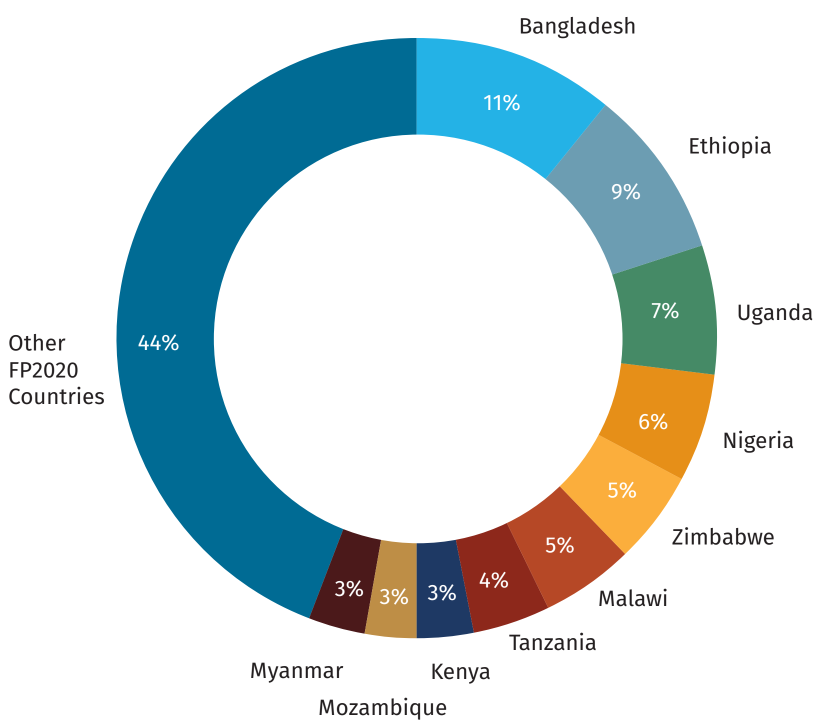
Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, January 2019; [3] USAID, "Couple-Years of Protection (CYP)"

EXHIBIT 5: VALUE OF 10 LARGEST FP2020 PUBLIC SECTOR COUNTRIES COMPARED TO VALUE OF ALL OTHER COUNTRIES COMBINED



*Top countries in this graph are defined by 2018 data and different in each year. Top 10 countries are in alphabetical order: Bangladesh, Ethiopia, Kenya, Malawi, Mozambique, Myanmar, Nigeria, Tanzania, Uganda, and Zimbabwe.

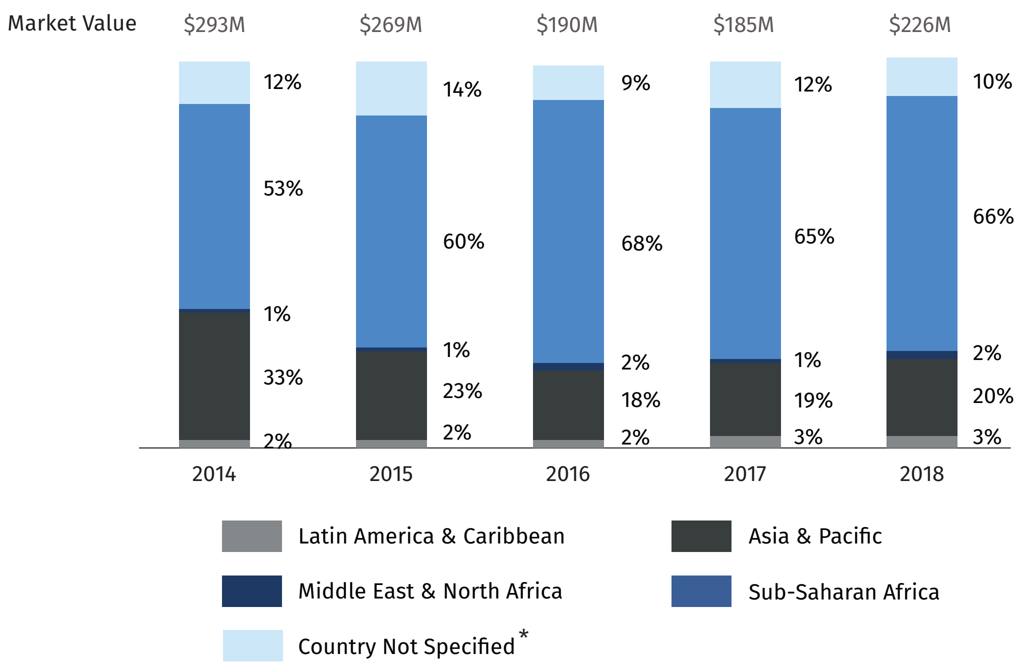
EXHIBIT 6: TOP 10 COUNTRIES IN TERMS OF VALUE, 2018



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, January 2019; [3] UNFPA Contraceptive Price Indicator, 2014–2018; [4] IAP Implant Price.

EXHIBIT 7: MARKET SHARE OF FP2020 PUBLIC SECTOR BY REGION (USD)

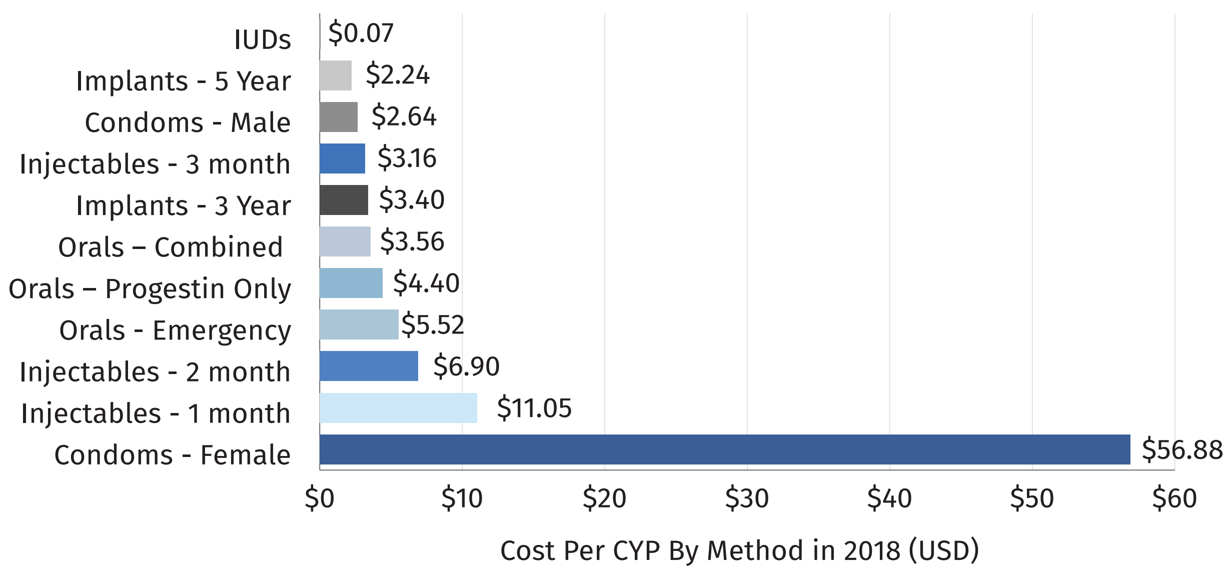


*The “Countries Not Specified” represents the proportion of shipment volumes to procurer warehouses where the final FP2020 destination is not specified. See Appendix C for further details.

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, January 2019; [3] UNFPA Contraceptive Price Indicator, 2014–2018; [4] IAP Implant Price.

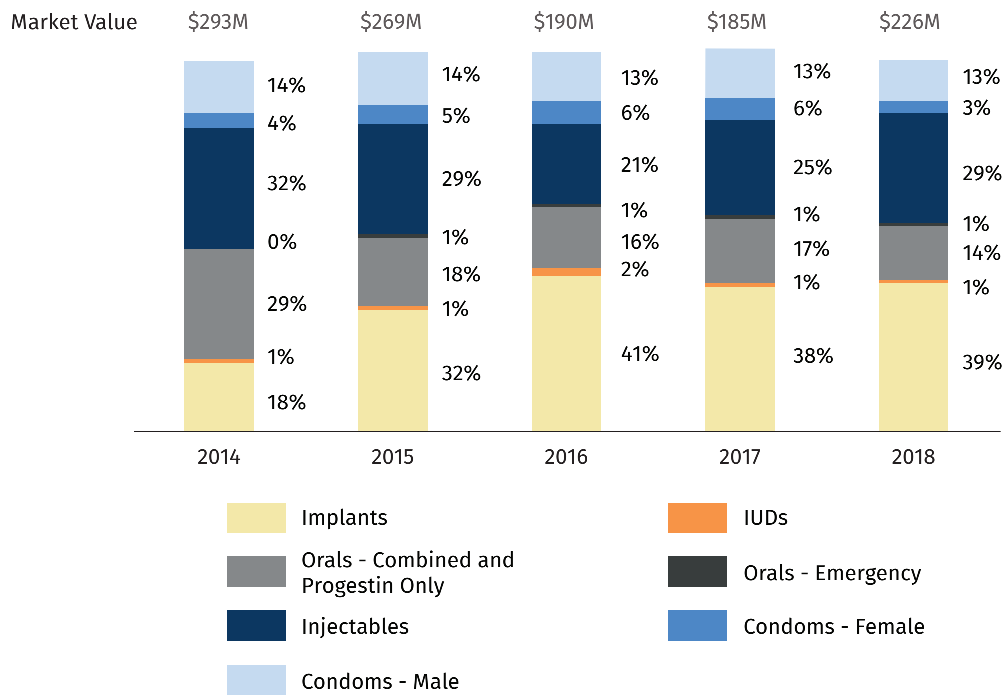
EXHIBIT 8: COST PER CYP BY METHOD (USD)

METHOD	UNITS PER CYP	UNIT COST					COST PER CYP				
		2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Condoms - Female	120.00	$0.51	$0.49	$0.49	$0.46	$0.47	$60.72	$58.80	$59.28	$55.32	$56.88
Condoms - Male	120.00	$0.03	$0.03	$0.03	$0.02	$0.02	$3.37	$3.24	$3.03	$2.71	$2.64
Injectables - 1 month	13.00	$0.85	$0.85	$0.85	$0.85	$0.85	$11.05	$11.05	$11.05	$11.05	$11.05
Injectables - 2 month	6.00	$1.30	$1.15	$1.15	$1.15	$1.15	$7.80	$6.90	$6.90	$6.90	$6.90
Injectables - 3 month	4.00	$0.79	$0.78	$0.80	$0.77	$0.79	$3.17	$3.13	$3.20	$3.09	$3.16
Orals - Combined	15.00	$0.32	$0.29	$0.26	$0.27	$0.24	$4.80	$4.35	$3.95	$4.01	$3.56
Orals - Progestin Only	15.00	$0.31	$0.34	$0.33	$0.32	$0.29	$4.70	$5.10	$4.92	$4.76	$4.40
Orals - Emergency	20.00	$0.30	$0.37	$0.35	$0.26	$0.28	$5.92	$7.40	$7.02	$5.14	$5.52
Implants - 3 Year	0.40	$8.50	$8.50	$8.50	$8.50	$8.50	$3.40	$3.40	$3.40	$3.40	$3.40
Implants - 5 Year	0.26	$8.50	$8.50	$8.50	$8.50	$8.50	$2.24	$2.24	$2.24	$2.24	$2.24
IUDs	0.22	$0.32	$0.30	$0.30	$0.31	$0.30	$0.07	$0.07	$0.06	$0.07	$0.07



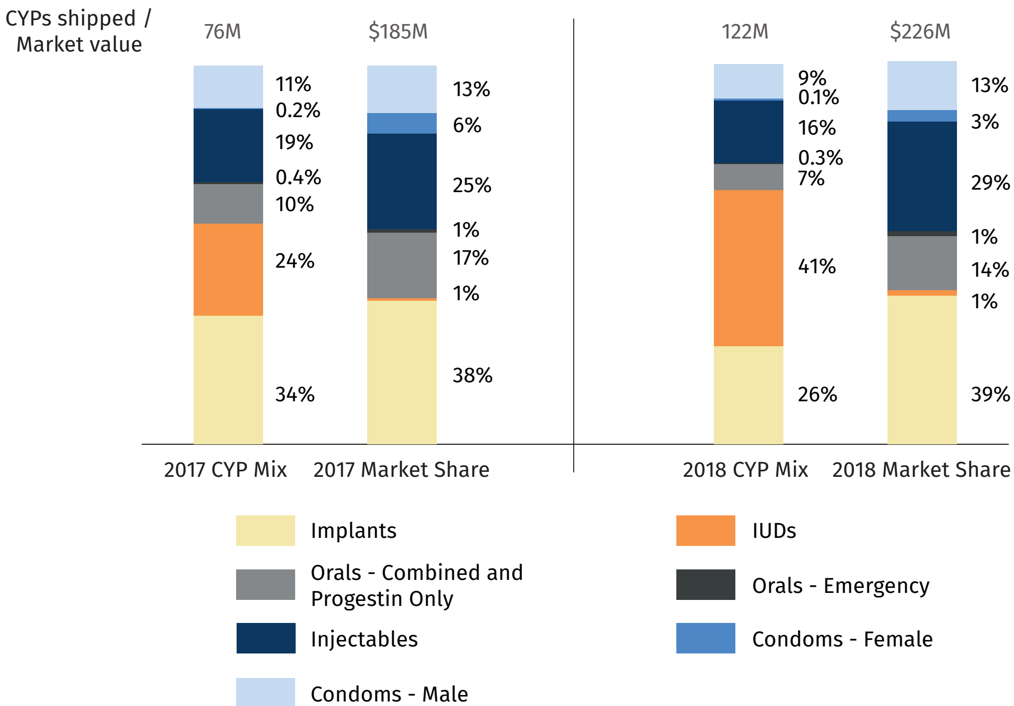
Sources: [1] UNFPA Contraceptive Price Indicator, 2014–2018; [2] USAID, "Couple-Years of Protection (CYP)"; [3] IAP Implant Price

EXHIBIT 9: MARKET SHARE (IN TERMS OF MARKET VALUE)



Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, January 2019; [3] UNFPA Contraceptive Price Indicator, 2014–2018; [4] IAP Implant Price

EXHIBIT 10: 2017 AND 2018 CYP MIX (IN TERMS OF CYPS SHIPPED) AND MARKET SHARE (IN TERMS OF MARKET VALUE)



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, January 2019; [3] UNFPA Contraceptive Price Indicator, 2014–2018; [4] USAID, "Couple-Years of Protection (CYP)"; [5] IAP Implant Price

This section focuses on data from the "Overview of Contraceptive and Condom Shipment" reports by USAID and data from the Procurement Services Branch of UNFPA to understand historical spend by the two major institutional procurers in the public sector markets of the 69 FP2020 focus countries. Note that fiscal year (FY) is used for USAID figures while calendar year is used throughout the report unless otherwise specified.

BOTH USAID AND UNFPA INCREASED THE VALUE OF THEIR SPENDING[20] ON FAMILY PLANNING PRODUCTS BETWEEN 2017 AND 2018. USAID'S SPEND TO FP2020 COUNTRIES INCREASED SIGNIFICANTLY IN 2018, BUT IT HAS NOT YET RETURNED TO PRE-2016 LEVELS. UNFPA'S SPENDING IN 2018 REPRESENTS A FIVE-YEAR HIGH.

The annual value of all contraceptives shipped by USAID, excluding male and female condoms,[21] to the 69 FP2020 focus countries increased from FY2014[22] to FY2015. From FY2016 to FY2018, the average value was notably lower, at $43 million (range of $34 million to $50 million), reaching a five-year low of $34 million in 2017.[23] From FY2017 to FY2018, the annual value increased by 46 percent from $34 million in FY2017 to $50 million in FY2018, driven by increased shipments of implants, injectables, and IUDs, but the overall value has not returned to pre-FY2016 levels. As cited in USAID's "Overview of Contraceptive and Condom Shipments" FY2018 report,[24] the FY2017 to FY2018 increase in value was potentially due to a resumption of more regular ordering patterns after a FY2017 dip in implants, injectables, and IUDs.[25] (Exhibit 11)

For UNFPA, the value of contraceptives procured increased by 8 percent annually from 2014 to 2018. From 2014 to 2015, procurement values remained relatively flat. A decrease of 27 percent was observed in 2016, followed by an increase of 25 percent in 2017. In 2018, the value of UNFPA's procurement was the highest it has been in the last five years, at $149 million. (Exhibit 12) The increase in UNFPA's procurement in 2018 was driven by an increase in funds allocated by the UNFPA Supplies Programme for procurement of contraceptive products, rapid fund mobilization initiatives from UNFPA country offices to support procurement of contraceptive products, and third party procurement.[26]

20. USAID values are based on shipment data for FP2020 countries and inclusive of product and freight costs. Values are taken from the USAID annual "Overview of Contraceptive and Condom Shipments" reports from FY2014 to FY2018. UNFPA procurement values reflect all contraceptive procurement conducted by UNFPA for FP2020 countries including fresh production (purchase orders) and requests satisfied using stock; values are inclusive of product costs and exclude services such as freight, sampling, inspection, and testing. Values are provided by UNFPA Procurement Services Branch.
21. The FY2018 report is reflective of family planning funding and does not include HIV/AIDs funded condoms; thus, we have excluded female and male condom values for 2014 to 2018 to compare a consistent data set across years.
22. USAID's Fiscal Year (FY) runs from Oct. 1 to Sept. 30.
23. USAID attributed the decreases in FY2016 and FY2017 to the transition from the USAID | DELIVER project to the GHSC-PSM project.
24. USAID, Overview of Contraceptive and Condom Shipments available at https://www.usaid.gov/sites/default/files/documents/1864/CC_FY18.pdf
25. The USAID 2018 Overview of Contraceptive and Condom Shipments report suggests that FY2018 may be showing a resumption of more regular ordering patterns from a FY2017 dip that may have been caused by countries bringing stock levels up in anticipation of a procurement agent shift prior to FY2017. USAID awarded the current contract for procuring and delivering medicines and commodities and providing supply-chain technical assistance to countries in FY2015: It is called the Global Health Supply-Chain - Procurement and Supply-Management Project (GHSC-PSM). https://www.usaid.gov/news-information/congressional-testimony/may-17-2018-sdaa-global-health-irene-koek-supply-chain
26. Third party procurement refers to procurement carried out by UNFPA using funds allocated by third party partners.

EXHIBIT 11: USAID WORLDWIDE CONTRACEPTIVE (EXCL. MALE AND FEMALE CONDOMS) SHIPMENT VALUES TO FP2020 COUNTRIES (IN USD)

2017-2018 YOY: +46%
2014-2018 CAGR: -4%

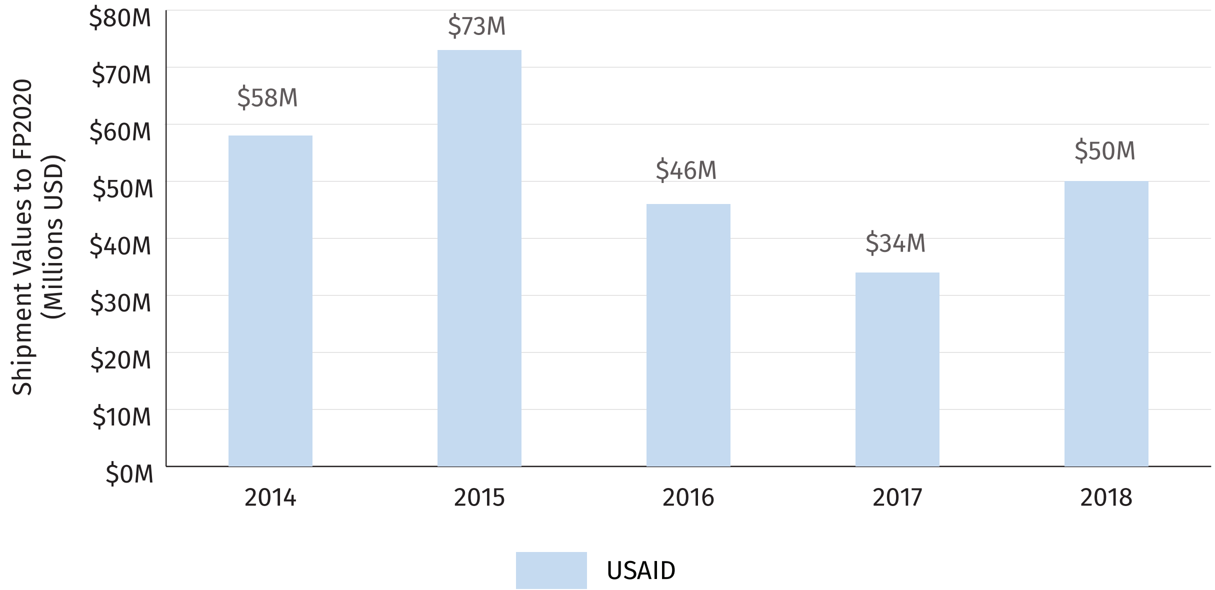
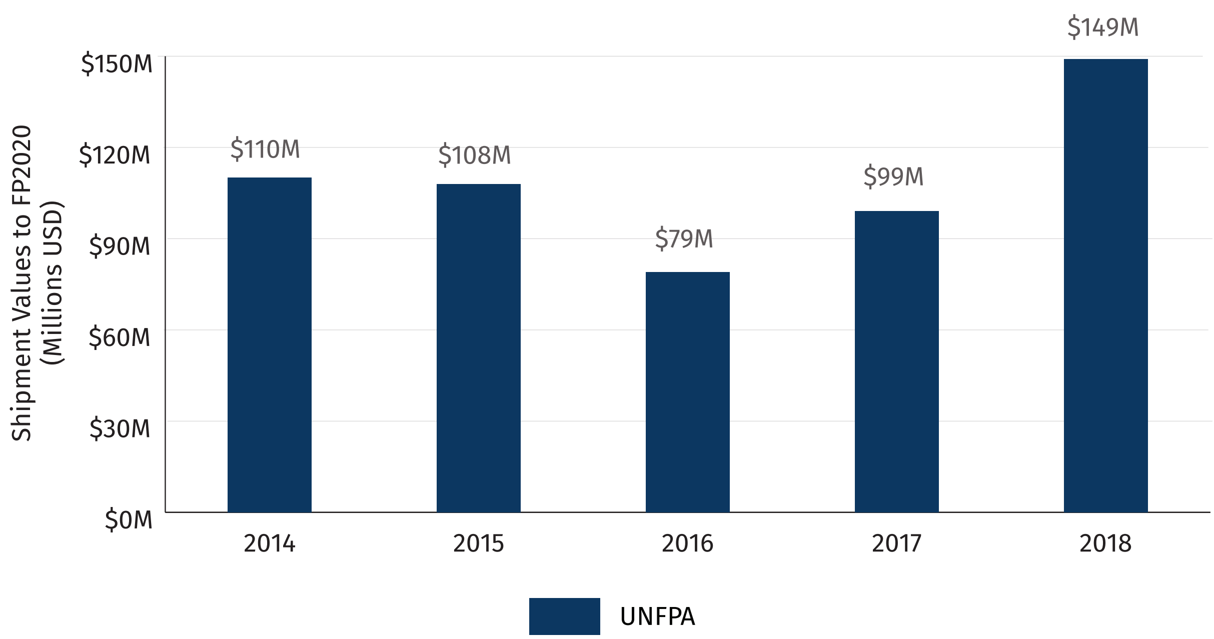


EXHIBIT 12: UNFPA PROCUREMENT VALUE - CONTRACEPTIVES TO FP2020 COUNTRIES (IN USD)

2017-2018 YOY: +51%
2014-2018 CAGR: +8%



Sources: [1] USAID Worldwide Contraceptive and Condom Shipments FY 2014 – 2018; [2] UNFPA PSB Procurement Values 2014 -2018

ALTHOUGH THERE WAS AN INCREASE IN DONOR SPENDING IN 2018, THERE IS STILL UNCERTAINTY ABOUT THE AVAILABILITY OF FUTURE DONOR SPEND FOR FAMILY PLANNING PRODUCTS.

Both UNFPA and USAID increased their spending on modern contraceptives in 2018 relative to 2017. The U.K. government also announced a new £600 million funding commitment over 2020 to 2025 for family planning supplies.[27] However, there remains uncertainty over longer-term donor funding. Based on conversations with stakeholders in the reproductive health community, the 2019 RHSC Global Contraceptive Commodity Gap Analysis suggested reduced or stagnant donor funding in the next decade.[28] There is also uncertainty related to the U.S. government's position on family planning and related funding intentions.[29]

The 2019 RHSC Commodity Gap Analysis also suggests that if annual spend on contraceptive supplies remains unchanged while women continue to demand family planning contraceptive products in growing numbers, a significant funding gap will emerge in 2020.[30]

27. https://www.gov.uk/government/news/healthcare-for-everyone-must-prioritise-womens-sexual-and-reproductive-health-and-rights-says-uk-at-un-general-assembly
28. 2019 Commodity Gap Analysis, RHSC. Available at https://www.rhsupplies.org/activities-resources/commodity-gap-analysis/
29. Family planning and reproductive health (FP/RH) funding totals $665 million in the Senate-approved FY20 State & Foreign Operations appropriations bill, compared to the FY19 enacted level of $608 million, the House FY20 level of $806 million, and the FY20 Request was $259 million. Henry J. Kaiser Family Foundation, October 2019. Available at: https://www.kff.org/news-summary/senate-appropriations-committee-releases-draft-fy-2020-state-and-foreign-operations-sfops-appropriations-bill/
30. The 2019 RHSC Global Contraceptive Commodity Gap Analysis forecasts a funding gap of $178 million in 2020 if the amount spent annually on contraceptive supplies remains at the current level, while the number of women who need supplies continues to grow.

CHAI CONSULTED A NUMBER OF SUPPLIERS, DONORS, AND OTHER FAMILY PLANNING PARTNERS TO DISCUSS THE TRENDS OBSERVED IN THIS REPORT.

While stakeholders were pleased to see the market increase from its 2017 low, some expressed concern that the value of the FP2020 public sector market had not yet returned to pre-2016 levels. The significant increase in donor spending between 2017 and 2018 was viewed with relief, as a number of stakeholders had previously expressed concern regarding the continued decrease in donor spending in recent years.

Certain stakeholders offered perspectives on a prominent trend observed in 2018 – the increase in CYPs shipped, driven by increased shipments of IUDs in 2018. Some suggested that the increase in IUDs shipped in 2018 was a reversal from the significant drop in IUD shipments seen in 2017. Specifically, Egypt saw the largest drop in IUD volumes in 2017 following the devaluation of the Egyptian Pound against the US dollar. It also accounted for the greatest increase in IUD shipments in 2018.

Year-to-year observations may also be attributed, at least in part, to the nature of the supplier shipment data, which may not always reflect programmatic changes. For instance, total annual volumes provided by suppliers are recorded when they are shipped which differs in timing from when those orders are placed. Thus, orders placed in one year may ship in subsequent years depending on production cycles and manufacturing lead times; one-year fluctuations are not necessarily a result of programmatic shifts.

Finally, as stated in the 2016 RHSC Commodity Gap Analysis,[31] general procurement trends "may also reflect a number of factors in addition to user consumption such as the volume necessary to fill supply pipelines and maintain adequate inventory levels from central warehouses to individual service delivery points. Procurement quantities may take into account the volume of supplies already present or on order, inventory holding policies along the supply chain, and wastage or "leakage" of supplies at various levels. Constraints on funding, price, incentives, plans to expand programs in the future, and preferences by donors or the government itself for particular methods or products may also influence what type and what volume of supplies to procure."

31. 2016 Commodity Gap Analysis, RHSC. Available at https://www.rhsupplies.org/uploads/tx_rhscpublications/Commodity_Gap_Analysis-2018.pdf32.

About the Global Markets Visibility Project

The Global Markets Visibility Project is a landmark initiative that has been providing the reproductive health community with detailed assessments of the public sector family planning market across the 69 FP2020 focus countries since 2015. The initiative provides insightful and strategic outputs for donors, MOHs, implementing organizations, and suppliers to develop and implement more effective strategies to enable women in the world's 69 poorest countries to use family planning products and services.

This report is a joint collaboration with the Reproductive Health Supplies Coalition (RHSC). The initial 2015 report comprised data from 11 manufacturers. Each manufacturer entered into a formal MOU with CHAI or provided their information through collaborations with the Generic Manufacturers Caucus for Reproductive Health (GEMs) and i+solutions. Since then, coverage has expanded, and today there are 15 suppliers participating in the project. Donors, suppliers, and partners remain fully committed to this project, expressing strong interest in continuing to strengthen the family planning community's market knowledge.

Market Definition, Scope, and Coverage

The total FP2020 public sector market referenced in this report only includes data for the public sector in the 69 FP2020 focus countries, which is 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 FP2020 public sector. This report includes data from the majority, but not all suppliers associated with these markets.

About the Participating Suppliers

Bayer

Bayer is a Germany-based life science company with core competencies in health care and agriculture. Its contraceptive product portfolio includes contraceptive implants, LNG-IUS, oral contraceptives, and injectables.

CR Zizhu

China Resources Zizhu Pharmaceutical Co., Ltd. (CR Zizhu) is a manufacturer of reproductive health products based in China. Its contraceptive product portfolio includes emergency oral contraceptives and combined oral contraceptives. CR Zizhu also manufactures misoprostol and several APIs including levonorgestrel.

Cipla

Cipla Limited is an India-based generic manufacturer with over 1,500 products in the areas of respiratory diseases, HIV/AIDS, malaria, MDRTB, and reproductive health. Its contraceptive product portfolio includes emergency contraceptives and combined oral contraceptives. It also manufactures misoprostol.

Cupid

Cupid Limited is a manufacturer of both male and female condoms based in India. Its services include contract manufacturing (e.g., Playboy condoms, Trust condoms) and research and development, as well as the marketing and manufacturing of its own branded products.

Female Health Company

Female Health Company is the global public sector division of Veru Healthcare focusing on urology and oncology, headquartered in Miami, Florida, USA.

The Female Health Company is the manufacturer of the FC2 female condom and focuses on the global public health sector business. FC2 is approved by the US FDA and WHO pre-qualified for offering dual protection against sexually transmitted infections and unintended pregnancy.

Helm AG

Helm AG is a Germany-based, family owned multifunctional distribution company specializing in: chemicals (feedstocks and derivatives), crop protection, active pharmaceutical ingredients and pharmaceuticals, and fertilizers. Until 2017, its main contraceptive product was a 3-month injectable (DMPA).

HELM AG was a participating supplier in the FP2020 Global Markets Visibility Project for the FP 2015, 2016, and 2017 Market Reports. In September 2017, HELM AG sold its wholly-owned subsidiary company, HELM Medical GmbH, to Sanavita Pharmaceuticals GmbH, a firm based in Germany whose parent company is Braun Beteiligungs GmbH. Following the transaction, HELM AG discontinued its IUD and Injectables business units and consequently the FP 2018 and FP 2019 reports do not contain shipment volumes for IUDs or Injectables from HELM AG. Sanavita Pharmaceuticals will assume responsibility for HELM's male condoms business unit. No supplier shipment data for male condoms from HELM or Sanavita is shown or used for analyses in this report – all shipment data for male condoms in this report is derived from the RHI database.

Incepta Pharmaceuticals

Incepta Pharmaceuticals Ltd. is a pharmaceutical company based in Dhaka, Bangladesh, that manufactures and markets generic drugs. Incepta has a portfolio of more than 500 generic products, in 1,100+ presentations, across various therapeutic areas. Incepta currently exports its products to 67 countries around the world. Its contraceptive product portfolio includes oral (combined and progestin only) and injectable contraceptives.

Merck (MSD)

Merck is a U.S.-based healthcare company which operates as MSD outside of the USA and Canada. Its contraceptive product portfolio includes contraceptive implants (Implanon) NXT (which includes a prefilled sterile applicator), oral contraceptives (Exluton and Marvelon) for FP2020 public sector markets, and oral contraceptives (Cerazette, Exluton, Marvelon, and Zoely), contraceptive implants (Implanon) NXT and the contraceptive vaginal ring (NuvaRing) for non-FP2020 markets.

Mylan
Mylan is a U.S. based healthcare company with over 7,500 marketed products. Its contraceptive product portfolio includes oral (combined, progestin only, and emergency) and injectable contraceptives, IUDs, and tubal rings used for female sterilization.[32]

Pfizer
Pfizer is a U.S.-based healthcare company. Its contraceptive product portfolio includes 3-month injectable DMPA IM (Depo-Provera) and 3-month injectables DMPA SC (Sayana Press).

Pregna
Pregna is a manufacturer of contraceptive products based in India. Its contraceptive product portfolio includes LNG-IUS (Eloira), IUDs, and tubal rings used for female sterilization.

PT Tunggal
PT. Tunggal Idaman Abdi (PT Tunggal) is a pharmaceutical manufacturer focusing on reproductive healthcare based in Indonesia. Its contraceptive product portfolio includes a monthly injectable, a 3-month injectable, a combined oral contraceptive, and an emergency oral contraceptive.

Shanghai Dahua
Shanghai Dahua Pharmaceutical Co., Ltd (Dahua) is a manufacturer of contraceptive implants based in China. On June 30th, 2017, the World Health Organization (WHO) pre-qualified Dahua's Levoplant (formerly known as Sino Implant II) for three years of use.

SMB
SMB is a manufacturer of medical devices, including IUDs and surgical sutures, based in India. Its key contraceptive product is IUDs, including Copper T 380A, TCu 380Ag, TCu 380 Plus, and SMB Cu 375.

Techno Drugs
Techno Drugs Ltd. is a manufacturer of both human and veterinary medicines based in Bangladesh. Its contraceptive product portfolio includes combined oral contraceptives, implants, and injectables. For injectables, Techno Drugs has also served as a supplier to Helm AG previously.

32. The procurement of products used for sterilization such as tubal rings are not covered in this report as the scope is limited to product-based modern methods of contraception.

APPENDIX A

69 FP2020 COUNTRIES MARKET VOLUMES BY METHOD[33] AND COUNTRY, 2014–2018

EXHIBIT A.1: 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	0	0	15,500,000	400,000	88,795,560
Benin	3,993,400	61,300	462,400	50,500	1,099,081
Bhutan	1,440,000	0	0	0	156,150
Bolivia	877,250	27,500	0	0	0
Burkina Faso	12,588,200	298,500	1,476,400	12,900	2,346,480
Burundi	0	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	0	2,000	639,339
Central African Republic	200,000	3,500	142,300	0	155,024
Chad	3,738,240	41,100	644,800	0	0
Comoros	0	500	0	0	59,997
Democratic Republic of Congo	163,406,800	50,212	267,600	39,000	1,757,096
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	0	0	3,800	0	15,000
Egypt Arab Rep	468,000	140,032	365,000	591,111	0
Eritrea	0	500	20,000	0	108,000
Ethiopia	44,350,736	495,112	12,226,888	430,500	5,894,456
Gambia	1,440,000	9,048	160,000	0	67,860
Ghana	45,105,600	120,696	6,003,800	20,250	2,630,160
Guinea	8,955,000	20,800	45,800	0	194,400
Guinea-Bissau	2,426,400	31,000	25,000	0	8,280
Haiti	57,184,080	0	1,199,200	4,000	0
Honduras	18,254,736	40,000	119,400	21,500	2,860,830
India	0	0	10,094	2,039,273	13,244,150
Indonesia	12,000	0	0	768,575	0
Iraq	5,078,880	0	0	5,039	1,513,029
Kenya	36,198,800	481,336	2,681,620	0	3,617,640
Korea Dem Rep	0	0	0	0	96,000
Kyrgyz Republic	0	0	40,000	0	0
Lao PDR	2,793,456	3,024	382,000	2,860	1,141,200
Lesotho	44,934,736	600	1,000	0	26,640
Liberia	9,574,000	0	457,000	0	352,080

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

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EXHIBIT A.1: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2014

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Madagascar	27,001,200	77,440	8,058,500	0	1,057,362
Malawi	55,827,800	104,324	6,531,650	0	630,006
Mali	32,271,400	100,600	1,190,600	21,000	2,673,306
Mauritania	43,000	1,200	35,000	0	83,520
Mongolia	882,720	0	0	25,000	158,420
Mozambique	44,553,600	22,000	6,868,050	0	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	0	0	95,150	0	0
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	0
Papua New Guinea	11,238,800	42,000	1,322,400	10,000	1,125,519
Philippines	0	149,023	2,000	0	18,456,458
Rwanda	5,403,000	32,816	1,727,200	0	60,480
Sao Tome and Principe	7,160	0	0	0	39,600
Senegal	30,213,112	33,600	1,149,600	42,000	691,000
Sierra Leone	6,756,880	0	414,600	0	549,360
Solomon Islands	7,000	0	0	0	34,560
Somalia	28,800	28,000	82,000	8,500	74,880
South Sudan	5,205,600	15,000	0	0	24,999
Sri Lanka	0	63,000	406,800	210,000	6,619,680
Sudan	2,628,000	29,440	6,600	0	1,589,396
Tajikistan	7,438,096	0	43,600	40,000	193,440
Tanzania	31,370,600	458,644	1,492,400	75,000	2,421,591
Timor0Leste	0	10,500	181,400	0	205,359
Togo	7,278,801	48,200	63,000	0	69,104
Uganda	134,701,296	479,202	6,172,050	0	533,130
Uzbekistan	4,809,600	0	0	2,430,100	0
Vietnam	0	43,322	0	0	0
West Bank and Gaza	0	0	0	0	0
Western Sahara	0	0	0	0	0
Yemen Rep	2,367,360	25,088	306,500	48,000	3,431,740
Zambia	54,777,800	136,600	2,532,100	3,500	1,576,800
Zimbabwe	129,833,000	149,100	0	3,000	14,795,070
Other FP2020 Shipment Volumes	47,544,044	1,405,100	390,400	171,201	61,284,336
Total Volumes	**1,517,598,007**	**6,245,627**	**113,915,602**	**10,025,968**	**274,345,101**

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, January 2019.

APPENDIX A

EXHIBIT A.2: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2015

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Afghanistan	4,728,000	4,500	0	30,000	300,000
Bangladesh	0	50,000	15,100,000	0	24,000,000
Benin	12,169,800	222,536	125,500	66,500	463,602
Bhutan	1,936,800	0	111,000	0	129,999
Bolivia	0	3,500	0	0	0
Burkina Faso	19,747,510	244,044	564,000	35,500	3,555,723
Burundi	5,760,000	134,500	1,639,267	0	520,528
Cambodia	5,730,480	11,000	200,000	30,000	9,484,891
Cameroon	26,245,443	125,052	10,000	46,550	29,079
Central African Republic	0	500	37,900	0	22,881
Chad	100,000	7,600	0	0	0
Comoros	1,303,200	1,008	78,400	0	35,001
Democratic Republic of Congo	65,606,368	308,230	1,189,200	32,222	3,758,922
Congo Rep	7,104,840	11,000	622,360	0	0
Cote d'Ivoire	100,000	15,664	212,000	0	5,224,561
Djibouti	0	500	296,667	0	79,995
Egypt Arab Rep	0	0	0	258,200	0
Eritrea	0	0	120,000	0	108,000
Ethiopia	31,052,091	1,180,607	2,000,000	650,000	8,478,983
Gambia	2,900	30,048	265,000	0	141,840
Ghana	13,995,000	403,236	1,394,600	0	1,993,464
Guinea	10,080,000	32,500	907,448	0	431,280
Guinea-Bissau	3,384,720	59,400	27,500	0	59,040
Haiti	60,014,400	9,300	421,400	0	201,759
Honduras	10,000,800	93,656	1,725,800	62,000	2,446,065
India	0	0	795,252	1,273,927	325,000
Indonesia	20,000	25,086	0	171,000	0
Iraq	0	0	0	0	0
Kenya	45,779,200	905,900	2,231,000	70,000	3,125,201
Korea Dem Rep	0	0	0	0	0
Kyrgyz Republic	1,527,264	0	80,000	0	0
Lao PDR	10,875,960	20,000	333,000	0	1,530,720
Lesotho	21,016,000	1,500	81,800	0	120,009
Liberia	9,009,780	44,600	846,800	0	396,018
Madagascar	1,500,000	72,722	9,349,250	35,996	595,605
Malawi	68,274,192	278,786	6,099,200	0	552,795
Mali	39,764,195	195,805	432,840	18,393	908,569

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EXHIBIT A.2: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2015					
COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Mauritania	0	86,264	41,200	0	84,384
Mongolia	1,360,800	0	90,000	0	242,382
Mozambique	41,712,000	95,000	3,025,500	0	0
Myanmar	42,251,912	108,156	7,231,700	900	1,134,860
Nepal	8,304,000	127,500	1,067,000	0	2,304,779
Nicaragua	0	2,000	65,050	3,000	188,640
Niger	0	12,700	820,800	10,425	2,226,162
Nigeria	97,478,368	379,591	8,132,250	75,000	2,474,121
Pakistan	290,853,000	210,484	0	3,024,116	0
Papua New Guinea	3,480	100,800	1,327,200	0	12,999
Philippines	0	731,244	0	82,336	4,135,001
Rwanda	18,626,900	28,752	727,667	5,768	265,296
Sao Tome and Principe	0	0	9,400	0	65,997
Senegal	18,858,530	65,384	760,000	0	1,393,920
Sierra Leone	7,926,120	68,500	726,800	0	1,058,340
Solomon Islands	0	0	15,000	0	0
Somalia	151,200	52,016	197,900	0	207,360
South Sudan	9,036,000	53,100	89,350	0	139,702
Sri Lanka	0	56,000	574,000	130,000	1,589,760
Sudan	3,000	30,568	474,200	0	3,851,868
Tajikistan	24,812,640	3,500	90,000	0	270,000
Tanzania	846,800	1,241,695	9,935,400	194,124	143,397
Timor-Leste	0	12,000	240,000	2,000	79,902
Togo	4,810,000	59,672	495,400	0	261,468
Uganda	35,316,096	258,060	8,235,050	48,300	218,859
Uzbekistan	0	0	701,600	2,408,900	1,989,949
Vietnam	0	0	0	1,005,000	0
West Bank and Gaza	0	0	0	0	0
Western Sahara	0	0	0	0	0
Yemen Rep	5,256,000	25,536	14,300	75,000	7,706,239
Zambia	66,167,400	245,900	3,399,400	13,000	3,707,865
Zimbabwe	141,429,280	98,500	889,100	1,900	9,400,083
Other FP2020 Shipment Volumes	85,564,584	1,564,900	352,600	113,550	60,732,503
Total Volumes	**1,377,597,053**	**10,210,602**	**97,025,050**	**9,973,607**	**174,905,366**

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, January 2019.

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EXHIBIT A.3: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2016

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Afghanistan	1,010,880	14,200	19,000	20,000	211,440
Bangladesh	0	150,000	8,200,000	0	0
Benin	3,708,000	277,028	70,000	27,000	5,040
Bhutan	0	0	237,000	0	0
Bolivia	50,400	67,800	3,000	0	5,760
Burkina Faso	12,911,000	427,800	1,123,500	0	1,600,971
Burundi	14,555,999	1,600	0	0	70,240
Cambodia	5,719,248	58,960	1,000,000	30,000	10,539,359
Cameroon	18,205,048	82,488	482,975	0	500,000
Central African Republic	3,628,800	6,200	147,600	500	262,296
Chad	0	41,024	15,600	0	0
Comoros	1,442,448	1,972	113,000	0	77,040
Congo Dem Rep	12,403,997	688,089	0	10,000	1,026,756
Congo Rep	3,600,000	1,008	6,720	29,650	2,880
Cote d'Ivoire	16,569,000	97,256	3,023,395	10,000	997,500
Djibouti	0	0	663,000	0	44,280
Egypt Arab Rep	0	140,000	0	2,680,434	0
Eritrea	0	0	100,000	0	126,640
Ethiopia	46,914,000	1,022,105	7,570,056	751,144	6,625,921
Gambia	2,880,000	20,016	313,000	0	565,200
Ghana	32,898,960	141,432	3,889,100	15,410	2,751,660
Guinea	12,488,000	77,000	90,000	0	512,644
Guinea-Bissau	0	50,000	13,000	0	10,080
Haiti	51,351,000	5,300	0	1,500	30,240
Honduras	26,094,600	0	1,977,000	0	1,385,280
India	5,000	0	23,984	865,062	6,137,520
Indonesia	5,000	350,000	0	120,074	0
Iraq	0	1,000	0	0	0
Kenya	54,090,024	742,864	95,000	37,500	3,403,080
Korea Dem Rep	0	0	905,200	0	0
Kyrgyz Republic	2,440,080	0	0	0	0
Lao PDR	0	53,200	850,600	0	1,405,440
Lesotho	11,262,000	23,452	260,400	0	218,160
Liberia	12,461,280	44,600	0	0	251,040
Madagascar	4,500,000	303,932	1,440,600	0	849,600
Malawi	12,520,000	33,700	2,475,200	0	0
Mali	12,604,704	27,072	25,000	17,300	20,160

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EXHIBIT A.3: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2016

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Mauritania	3,110,400	2,500	39,000	0	164,160
Mongolia	1,540,800	3,100	30,000	0	405,108
Mozambique	59,034,000	0	90,000	13,000	205,920
Myanmar	16,169,472	147,348	1,800	0	7,560,366
Nepal	32,654,280	98,400	25,400	31,950	228,066
Nicaragua	1,500,000	4,008	0	15,000	0
Niger	0	50,400	1,317,700	0	3,141,960
Nigeria	149,734,200	771,763	1,278,600	90,030	3,320,703
Pakistan	108,752,496	800	0	1,872,716	15,120
Papua New Guinea	1,994,400	103,000	22,600	0	11,520
Philippines	0	0	0	1,070,737	0
Rwanda	17,757,000	65,294	1,734,900	0	2,439,900
Sao Tome and Principe	0	0	0	0	63,360
Senegal	5,094,000	179,864	10,000	32,675	860,949
Sierra Leone	1,080,000	73,000	280,200	5,500	955,860
Solomon Islands	0	0	0	0	0
Somalia	0	0	1,950	0	19,000
South Sudan	9,681,120	30,000	150,000	0	172,080
Sri Lanka	0	50,500	650,000	100,000	6,049,600
Sudan	7,216,992	49,104	29,800	3,500	338,345
Tajikistan	17,392,200	0	93,000	25,000	415,440
Tanzania	428,800	986,112	4,741,200	486,000	5,621,360
Timor-Leste	0	10,500	0	0	0
Togo	14,036,128	46,656	315,800	0	27,360
Uganda	19,200,000	234,524	1,184,250	45,200	5,740,520
Uzbekistan	6,228,720	0	848,400	432,800	0
Vietnam	0	0	0	1,096,080	0
West Bank and Gaza	0	0	800	0	0
Western Sahara	0	0	0	0	0
Yemen Rep	6,302,880	0	157,000	75,000	1,141,120
Zambia	32,762,600	142,000	443,000	0	0
Zimbabwe	106,975,000	140,656	661,800	1,800	19,521,550
Other FP2020 Shipment Volumes	20,389,000	1,016,700	392,800	198,850	21,702,220
Total Volumes	**1,015,353,956**	**9,157,327**	**49,632,930**	**10,211,412**	**119,757,814**

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, January 2019.

APPENDIX A

EXHIBIT A.4: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2017

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Afghanistan	16,665,408	9,800	59,600	0	365,200
Bangladesh	1,195,200	400,000	7,258,000	0	0
Benin	14,507,399	34,900	30,600	0	0
Bhutan	0	0	0	0	0
Bolivia	2,001,600	94,600	50,400	0	30,000
Burkina Faso	15,050,016	95,300	481,200	0	3,741,150
Burundi	22,039,200	0	17,500	0	169,980
Cambodia	1,929,600	40,056	900,000	60,000	7,082,236
Cameroon	6,658,400	95,200	327,000	0	298,080
Central African Republic	268,999	0	0	0	95,040
Chad	0	0	0	0	0
Comoros	1,267,200	2,520	40,000	0	60,480
Democratic Republic of Congo	15,913,800	364,828	2,143,580	0	1,380,220
Congo Rep	2,160,000	76,076	32,000	0	720
Cote d'Ivoire	23,494,968	196,600	243,000	0	6,521,413
Djibouti	0	0	0	0	6,480
Egypt Arab Rep	0	40,032	0	375,045	0
Eritrea	8,640,000	12,500	100,000	0	112,560
Ethiopia	72,453,000	1,107,134	7,436,988	440,000	10,794,948
Gambia	5,371,200	16,488	110,000	1,500	235,440
Ghana	0	250,256	106,000	11,500	3,183,960
Guinea	9,518,136	100,000	0	0	30,240
Guinea-Bissau	8,412,624	27,300	2,500	0	2,160
Haiti	84,455,880	4,116	863,400	0	647,304
Honduras	34,884,000	1,440	21,000	0	1,641,840
India	0	0	1,047,488	522,885	2,262,311
Indonesia	0	0	0	0	0
Iraq	316,944	0	0	0	40,032
Kenya	373,000	408,781	437,376	126,000	7,921,836
Korea Dem Rep	0	0	0	0	0
Kyrgyz Republic	7,264,800	0	0	0	0
Lao PDR	3,474,840	65,808	76,800	0	701,040
Lesotho	14,001,000	31,200	165,000	0	176,400
Liberia	6,009,000	36,100	319,000	0	5,760
Madagascar	0	256,618	3,012,800	295,019	1,288,800
Malawi	27,759,000	167,408	1,000,000	36,500	236,700
Mali	20,115,816	209,728	293,000	0	210,240

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EXHIBIT A.4: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2017

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Mauritania	0	10,404	88,600	0	295,920
Mongolia	1,144,800	800	0	37,000	350,160
Mozambique	110,748,000	60,016	1,373,600	23,600	3,278,160
Myanmar	35,536,744	18,936	6,108,125	200	14,780,928
Nepal	20,841,000	211,800	641,000	74,000	4,015,160
Nicaragua	2,911,680	504	0	0	50,000
Niger	979,200	54,100	499,000	7,920	437,040
Nigeria	44,137,048	665,160	3,316,700	0	1,229,445
Pakistan	20,000	900	0	50,090	123,840
Papua New Guinea	1,101,600	30,000	22,000	4,000	82,720
Philippines	0	0	0	0	0
Rwanda	20,606,200	84,062	8,200	13,200	68,400
Sao Tome and Principe	1,108,800	300	28,000	0	98,100
Senegal	7,005,000	67,864	160,000	0	139,140
Sierra Leone	19,728,000	230,400	332,650	16,000	1,087,240
Solomon Islands	0	0	0	0	0
Somalia	0	2,500	3,500	0	0
South Sudan	11,340,000	25,016	150,000	0	20,000
Sri Lanka	4,056,624	65,500	0	0	3,589,760
Sudan	0	36,936	0	6,000	2,123,400
Tajikistan	5,188,200	0	142,000	0	613,440
Tanzania	4,320,184	798,920	2,830,850	177,000	2,885,763
Timor-Leste	1,080,000	20,000	0	0	0
Togo	14,946,200	67,388	140,000	0	25,002
Uganda	78,884,400	297,652	3,895,400	251,000	249,520
Uzbekistan	13,217,540	0	0	0	718,989
Vietnam	21,816,000	12,636	1,196,500	1,239,531	0
West Bank and Gaza	1,944,000	0	0	0	0
Western Sahara	0	0	0	0	0
Yemen Rep	7,104,960	64,288	445,000	0	0
Zambia	87,915,960	161,800	3,418,650	0	3,528,960
Zimbabwe	96,837,000	60,496	1,399,200	10,000	12,716,941
Other FP2020 Shipment Volumes	9,942,000	1,058,100	5,912,600	228,950	23,003,805
Total Volumes	**1,050,662,172**	**8,251,267**	**58,685,807**	**4,006,940**	**124,754,403**

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, January 2019.

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EXHIBIT A.5: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2018

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Afghanistan	0	16,500	307,750	0	224,480
Bangladesh	10,771,200	793,064	15,194,000	480,000	20,049,680
Benin	12,966,000	38,100	38,000	0	2,250
Bhutan	0	0	0	0	0
Bolivia	0	73,300	200,000	0	230,022
Burkina Faso	12,008,400	342,940	246,400	0	3,398,400
Burundi	0	4,000	126,400	0	415,332
Cambodia	3,427,200	46,392	700,000	0	11,986,296
Cameroon	9,633,600	112,952	338,000	3,500	100,000
Central African Republic	12,960,000	4,800	108,200	0	39,648
Chad	1,008,000	38,846	187,000	0	5,000
Comoros	1,180,800	0	0	0	3,000
Democratic Republic of Congo	54,908,976	331,170	1,343,100	0	370,560
Congo Rep	0	63,000	0	86,000	12,120
Cote d'Ivoire	27,040,800	139,088	474,800	18,800	3,867,676
Djibouti	684,000	3,200	70,400	0	0
Egypt Arab Rep	0	160,046	0	3,774,650	0
Eritrea	0	2,200	100,000	0	10,025
Ethiopia	25,153,440	1,205,446	7,753,455	600,000	7,896,030
Gambia	0	1,400	160,500	0	660,816
Ghana	33,221,400	282,314	2,423,500	30,500	2,827,200
Guinea	0	0	100,000	0	51,360
Guinea-Bissau	10,310,400	0	6,600	0	42,120
Haiti	113,420,040	34,016	1,827,000	2,000	100,212
Honduras	34,012,800	1,000	107,000	1,100	74,880
India	0	0	102,000	3,221,980	366,065
Indonesia	0	0	0	852,430	0
Iraq	1,000,800	0	0	0	0
Kenya	2,000,000	379,232	470,124	84,225	12,791,937
Korea Dem Rep	0	0	0	0	0
Kyrgyz Republic	0	0	0	0	0
Lao PDR	2,090,400	0	242,000	0	660,600
Lesotho	8,192,600	7,644	15,000	0	116,682
Liberia	28,800	37,500	705,200	0	32,400
Madagascar	5,001,000	325,344	4,866,200	0	204,800
Malawi	202,545,600	173,874	4,947,825	0	1,250,484
Mali	10,207,200	56,576	1,578,800	0	1,063,635

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EXHIBIT A.5: 69 FP2020 COUNTRIES CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2018

COUNTRY	CONDOMS MALE & FEMALE	IMPLANTS	INJECTABLES	IUDS	ORALS
Mauritania	0	5,700	86,800	0	711,360
Mongolia	900,000	6,200	0	0	420,000
Mozambique	92,244,400	231,648	3,291,800	10,000	643,680
Myanmar	49,103,616	103,540	2,889,125	5,000	11,190,719
Nepal	16,943,496	176,000	2,170,400	20,000	3,299,530
Nicaragua	11,164,320	2,854	0	12,000	0
Niger	849,600	170,940	914,200	0	658,002
Nigeria	48,724,800	1,023,764	4,731,600	150,800	1,996,764
Pakistan	612,000	10,000	100,000	320,285	0
Papua New Guinea	5,680,800	60,000	5,000	0	424,967
Philippines	2,397,600	0	0	50,450	0
Rwanda	30,399,200	256,072	862,200	0	55,680
Sao Tome and Principe	1,315,008	500	26,000	0	67,080
Senegal	11,052,000	186,336	0	7,000	0
Sierra Leone	1,987,200	153,533	972,800	0	435,480
Solomon Islands	0	0	0	0	0
Somalia	100,800	15,240	100,000	0	0
South Sudan	2,476,000	54,000	340,000	0	610,080
Sri Lanka	0	500	0	0	2,119,680
Sudan	720,000	51,264	0	0	0
Tajikistan	0	0	138,000	0	595,224
Tanzania	2,868,000	810,780	2,067,300	10,000	1,273,980
Timor-Leste	725,760	3,900	0	0	0
Togo	14,767,832	75,264	118,400	0	164,154
Uganda	178,114,000	811,576	5,469,525	103,500	4,369,950
Uzbekistan	0	0	0	0	0
Vietnam	21,816,000	0	0	925,250	0
West Bank and Gaza	0	0	0	0	0
Western Sahara	0	0	0	0	0
Yemen Rep	1,483,200	37,440	1,093,600	29,700	30,000
Zambia	85,347,400	115,096	1,855,950	0	6,965,040
Zimbabwe	159,922,460	87,500	1,010,975	0	18,265,635
Other FP2020 Shipment Volumes	22,343,648	1,263,200	7,977,325	87,000	10,256,278
Total Volumes	**1,357,832,596**	**10,386,791**	**80,960,254**	**10,886,170**	**133,406,993**

Sources: [1] Historical Supplier-Reported Shipment Data; [2] RHI Shipment Data, January 2019.

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 becomes available. The following provides an overview of the data sources CHAI relied upon for market analyses:

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 collects historical shipment data by product and country from suppliers for each of the 69 FP2020 focus countries. For the 2015, 2016, 2017, and 2018 reports, CHAI partnered with Concept Foundation to collect and aggregate shipment data from participating members of the RHSC Generic Manufacturers for Reproductive Health Caucus (GEMs). For the 2019 report, CHAI collected shipment data directly from GEMs suppliers. We have expanded our coverage and are privileged to now include data from one new supplier. In addition, all suppliers who previously provided data agreed to participate in this year's report. To date, the Global Markets Visibility Project has collected historical shipment data that covers institutional sales (USAID, UNFPA, SMOs, etc.) and MOH tender volumes from 15 manufacturers across five family planning product categories. The main analyses and data reflected in this report in the Supplier Shipment Analysis and associated Appendices are based on the supplier shipment data collected through this project.

U.S. Agency for International Development (USAID) Overview of Contraceptive and Condom Shipments Report

USAID has provided contraceptive products for family planning and reproductive health activities since the mid-1960s. The Overview of Contraceptive and Condom Shipments report is an annual publication that summarizes contraceptive and condom shipments sponsored by USAID, by value and unit. For the purposes of this year's Family Planning Market Report's Donor Spend Analysis, the FY2014 through FY2018 reports for FP2020 countries were accessed and used to analyze USAID's spend on contraceptives, excluding male and female condoms, over the period. Values are inclusive of commodity and freight costs and are reported based on the USAID fiscal year which ends on September 30.

The United Nations Population Fund (UNFPA) Procurement Services Branch (PSB) Procurement Data

UNFPA is the lead agency within the United Nations system for the procurement of reproductive health products and has been procuring reproductive health supplies for the developing world for over 40 years. For the purposes of this year's Family Planning Report's Donor Spend Analysis, CHAI worked with UNFPA PSB to determine the value of the contraceptive procurement conducted by UNFPA from 2014 to 2018 for FP2020 countries. Values are inclusive of commodity cost and exclude services such as freight, sampling, inspection, and testing and are reported based on the calendar year.

Reproductive Health Interchange (RHI)[34]

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. The database aims to capture all 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 January 2019. RHI is used as a comparison for our data set for a high-level understanding of the supplier shipment data coverage as well as for male condom data.

34. RHI, available at https://www.unfpaprocurement.org/rhi-home

APPENDIX C — ESTIMATING THE TOTAL FP2020 PUBLIC SECTOR MARKET SIZE

The value of the FP2020 public sector market was constructed using the best available data sources: historical supplier-reported shipment data and RHI shipment data.

Participating Suppliers' Representation of the RHI Market

Within the RHI shipment data, the suppliers participating in the Global Markets Visibility Project held 97 percent of the cumulative shipment volumes from 2014 to 2018 in every category with the exception of IUDs and emergency contraceptives, where suppliers held 48 percent and 63 percent of the volumes, respectively. (Exhibit C.1.)

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 does not collect 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.

EXHIBIT C.1: GLOBAL MARKETS VISIBILITY PROJECT PARTICIPATING SUPPLIER VOLUMES WITHIN RHI BY METHOD FOR THE FP2020 PUBLIC SECTOR MARKET

METHOD	PARTICIPATING SUPPLIER VOLUMES IN RHI 2014 – 2018	ALL SUPPLIER VOLUMES IN RHI 2014 – 2018	% OF TOTAL METHOD VOLUMES
Condoms - Female	101 M	104 M	97%
Implants	37 M	38 M	99%
Injectables	277 M	278 M	100%
IUDs	8 M	16 M	48%
Orals - Combined & Progestin Only	382 M	385 M	99%
Orals - Emergency	5 M	8 M	63%
Total	**810 M**	**828 M**	**98%**

EXHIBIT C.2: UNIT OF MEASUREMENT

METHOD	UNIT OF MEASURE
Condoms - Female	Piece
Condoms - Male	Piece
Implants	Set
Injectables	Vial
IUDs	Piece
Orals - Combined	Cycle
Orals - Progestin Only	Cycle
Orals - Emergency	Doses

Sources: [1] RHI Shipment Data, January 2019

APPENDIX C — ESTIMATING THE TOTAL FP2020 PUBLIC SECTOR MARKET SIZE

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 15 manufacturers – Bayer, Cipla, CR Zizhu, Cupid, Female Health Company, Helm AG, Incepta Pharmaceuticals, Mylan, Merck (MSD), Pfizer, Pregna, PT Tunggal, Shanghai Dahua, SMB, and Techno Drugs. Collectively, the total volumes cover institutional sales (USAID, UNFPA, MSI, etc.) and MOH tenders across five family planning product categories.[35]

Suppliers have cumulatively shipped 108 million female condoms, 44 million implants, 400 million injectables, 45 million IUDs, 797 million orals (combined & progestin only), and 30 million emergency contraceptives from 2014 to 2018.

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 USA. 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.

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	•		•		
Incepta Pharmaceuticals			•		
Mylan			•	•	•
Merck (MSD)		•			•
Pfizer			•		
Pregna				•	
PT Tunggal			•		•
Shanghai Dahua		•			
SMB				•	
Techno Drugs		•	•		•

EXHIBIT C.4: SUPPLIER-REPORTED SHIPMENT VOLUMES TO FP2020 COUNTRIES BY METHOD, 2014–2018

METHOD	2014	2015	2016	2017	2018	CUMULATIVE TOTAL 2014-2018
Condoms – Female	25 M	25 M	22 M	22 M	13 M	108 M
Implants	6 M	10 M	9 M	8 M	10 M	44 M
Injectables	114 M	97 M	50 M	59 M	81 M	400 M
IUDs	10 M	10 M	10 M	4 M	11 M	45 M
Orals - Combined & Progestin Only	269 M	168 M	114 M	118 M	127 M	797 M
Orals - Emergency	5 M	7 M	6 M	6 M	6 M	30 M

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

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

APPENDIX C — ESTIMATING THE TOTAL FP2020 PUBLIC SECTOR MARKET SIZE

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 in the RHI database. The cumulative total from 2014 to 2018 historical supplier-reported shipment volumes to 69 FP2020 countries and procurer warehouses is greater than RHI in every method.

EXHIBIT C.5: SUPPLIER-REPORTED SHIPMENT VOLUMES AS A PERCENTAGE OF RHI REPORTED* VOLUMES BY METHOD, 2014–2018

METHOD	2014	2015	2016	2017	2018	CUMULATIVE TOTAL 2014-2018
Condoms – Female	95%	113%	122%	122%	69%	103%
Implants	122%	125%	145%	119%	95%	118%
Injectables	145%	184%	130%	130%	128%	144%
IUDs	253%	392%	299%	169%	305%	284%
Orals - Combined & Progestin Only	250%	193%	178%	239%	165%	207%
Orals - Emergency	322%	389%	647%	361%	358%	394%

* Includes all reporting RHI suppliers to FP2020 countries and procurer warehouses

Sources: [1] Historical Supplier Shipment Data; [2] RHI Shipment Data, January 2019.

APPENDIX C — ESTIMATING THE TOTAL FP2020 PUBLIC SECTOR MARKET SIZE

Male Condom Market

Historical RHI shipment data for male condoms was used to capture a more comprehensive view of the family planning market for the 69 FP2020 countries. We used RHI shipment volume data from 2014 to 2018 and included all male condom shipment volumes to the 69 FP2020 countries as well as volumes associated with procurer warehouses in non-FP2020 focus countries.[36] The male condom market reflected by the RHI data includes at least 17 manufacturers and 5 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 2014 to 2018.

EXHIBIT C.6: RHI MALE CONDOM SHIPMENT VOLUMES, 2014–2018

METHOD	2014	2015	2016	2017	2018
Condoms - Male	1.49 B	1.35 B	0.99 B	1.03 B	1.34 B

EXHIBIT C.7: 69 FP2020 CONTRACEPTIVE MARKET VOLUMES BY METHOD, 2014–2018

METHOD	2014	2015	2016	2017	2018
Condoms – Female	25 M	25 M	22 M	22 M	13 M
Condoms – Male (RHI)	1,493 M	1,352 M	993 M	1,029 M	1,344 M
Implants	6 M	10 M	9 M	8 M	10 M
Injectables	114 M	97 M	50 M	59 M	81 M
IUDs	10 M	10 M	10 M	4 M	11 M
Orals – Combined & Progestin Only*	269 M	168 M	114 M	118 M	127 M
Orals – Emergency	5 M	7 M	6 M	6 M	6 M

* Some shipment units in the “Orals – Combined & Progestin Only” category provide 28 days of protection, while others provide 35 days of protection. Wherever oral contraceptive volumes are shown, tables and charts have been updated to reflect that one shipment unit refers to the smallest unit shipped (i.e., A unit of pills containing 35 pills is counted as one unit, and a unit of pills containing 28 pills is also counted as one unit).

Source: **[Exhibit C.6]** *RHI Shipment Data, January 2019. Source:* **[Exhibit C.7]** *Historical Supplier-Reported Shipment Data; RHI Shipment Data, January 2019.*

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

APPENDIX C — ESTIMATING THE TOTAL FP2020 PUBLIC SECTOR MARKET SIZE

Total FP2020 Public Sector Market In Terms of CYPs

CHAI translated shipment volumes to CYPs by dividing shipment volumes by each method's corresponding couple-years of protection (CYP) factor.

CHAI divided all shipment volumes by the corresponding CYP factor published by USAID. CYP is the estimated protection provided by contraceptive methods based upon the volume of all methods sold or distributed for free to clients during that period of time.[37] 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 CYPs.

EXHIBIT C.8: VOLUMES TO CYPs SHIPPED CONVERSION FACTORS, 2014–2018

METHOD	UNITS PER CYP
Condoms – Female	120.00
Condoms – Male	120.00
Implants – 3-Year	0.40
Implants – 4-Year	0.31
Implants – 5-Year	0.26
Injectables – 1-month	13
Injectables – 2-month	6
Injectables – 3-month	4
IUDs	0.22
Orals – Combined	15.00
Orals – Progestin Only*	12.00 or 15.00*
Orals – Emergency	20.00

* For the conversion of shipment volumes to CYPs shipped, an oral contraceptive unit that provides 28 days of protection is converted to CYPs using a units per CYP conversion factor of 15, while an oral contraceptive unit that provides 35 days of protection is converted to CYPs using a units per CYP conversion factor of 12.

Sources: [1] USAID, "Couple-Years of Protection (CYP)," January 2019.

37. 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.

APPENDIX C — ESTIMATING THE TOTAL FP2020 PUBLIC SECTOR MARKET SIZE

Value of the Total FP2020 Public Sector Market

The total value of contraceptives was calculated by applying average unit prices to total shipment volumes. 2014 to 2018 average unit prices by method are based on UNFPA prices as reported in UNFPA's Contraceptive Price Indicator.[38] Although there are different prices for different products and markets, we estimate implied spend using UNFPA's Contraceptive Price Indicator prices for simplicity.[39] Finally, the Implant Access Program price of $8.50 was applied to implant volumes from 2014 to 2018. 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 trends across supplier-reported and RHI-reported volumes. As a result, numbers may differ from the RHI reported value field.

EXHIBIT C.9: AVERAGE UNIT PRICE

	PRICE RANGE		2014	2015	2016	2017	2018
Method	Minimum	Maximum	Unit Price	Unit Price	Unit Price	Unit Price	Unit Price
Condoms - Female	$0.46	$0.51	$0.51	$0.49	$0.49	$0.46	$0.47
Condoms - Male	$0.02	$0.03	$0.03	$0.03	$0.03	$0.02	$0.02
Implants	$8.50	$8.50	$8.50	$8.50	$8.50	$8.50	$8.50
Injectables	$0.79	$0.83	$0.83	$0.81	$0.82	$0.79	$0.81
IUDs	$0.30	$0.32	$0.32	$0.30	$0.30	$0.31	$0.30
Orals - Combined	$0.24	$0.32	$0.32	$0.29	$0.26	$0.27	$0.24
Orals - Progestin Only	$0.29	$0.34	$0.31	$0.34	$0.33	$0.32	$0.29
Orals - Emergency	$0.26	$0.37	$0.30	$0.37	$0.35	$0.26	$0.28

Notes: [1] For 2014-2018 implants, the Implant Access Program price is used; [2] The price range and unit prices in each year are based on an average of USAID and UNFPA prices via UNFPA's Contraceptive Price Indicators

Sources: [1] UNFPA Contraceptive Price Indicator, 2014 to 2018; [2] IAP Implant Prices.

38. Historical reports used the average price of USAID and UNFPA prices in some years; however after 2014, USAID stopped publishing prices in UNFPA's Contraceptive Price Indicator, thus only UNFPA prices are used to calculate total market value for 2014 to 2018 for consistency.
39. UNFPA, "UNFPA Contraceptive Price Indicator –Year 2018", available at https://www.unfpa.org/resources/contraceptive-price-indicator-year-2018, UNFPA, "UNFPA Contraceptive Price Indicator –Year 2017", available at https://www.unfpa.org/sites/default/files/resource-pdf/UNFPA_CYP_2017_correctedversion.pdf, "UNFPA Contraceptive Price Indicator –Year 2016", available at http://www.unfpa.org/resources/contraceptive-price-indicator-2016, "UNFPA Contraceptive Price Indicator - Year 2015" available at 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

APPENDIX D – ESTIMATING TOTAL FP2020 DONOR-SPEND VOLUMES

To protect customer confidentiality, suppliers were not asked to disclose customer information associated with shipment volumes. CHAI uses information from USAID, GHSC-PSM, and UNFPA to understand donor spend by the two major institutional procurers of family planning products. For more information on each of these data sources, refer to Appendix B.

Going forward, CHAI will continue to work closely with the two major institutional procurers of family planning products to ensure the data provided is the most accurate and accessible for the purposes of this report.

APPENDIX E – ADDITIONAL MARKETS VISIBILITY

CHAI historically conducted supplementary research and analysis using publicly available sources of data in three large markets: Bangladesh, India, and Indonesia.[40] In this report, the analysis is refreshed with the latest data for Bangladesh and India; government procurement tenders historically made available through the National Family Planning Co-ordinating Body (BKKBN) for Indonesia were not available for 2017 and 2018 tenders.

Due to the limitations of these data sources, CHAI cannot confirm that they represent 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.

40. Bangladesh, India, and Indonesia were countries that accounted for the largest proportion of the gap between FP2020-reported users on product-based methods and users implied by the shipment data based on country-specific comparisons.

APPENDIX E – ADDITIONAL MARKETS VISIBILITY

Bangladesh

The Bangladesh Ministry of Health and Family Welfare (MOHFW) procured 17 million CYPs for the 2018 calendar year, as compared to 3 million CYPs for the 2017 calendar year, 8 million CYPs for the 2016 calendar year, and 13 million CYPs for the 2015 calendar year. Procurement contracts for product-based contraceptives from 2015 to 2018 were awarded primarily to regional and local suppliers, including (but not limited to): HLL Lifecare Limited, MSD/Organon (India) Pvt Ltd.,[41] MSD B.V.[42], M/S, Reneta Ltd., Popular Pharmaceuticals Ltd.,[43] and Techno Drugs from Bangladesh. Only the data from a subset of these manufacturers is included in the current calculation of the value derived from the supplier shipment data.[44] By applying the same prices used for 2018 supplier shipment volumes to the volumes from the Bangladesh MOHFW procurement data, we estimated the implied value from those contracts to be $46 million for 2018, as compared to the $24 million implied by the 2018 supplier shipment data.[45]

A review of Bangladesh's supply chain reports revealed that consumption of contraceptive products was between 12 and 14 million CYPs each year from 2014 to 2017 and was 11 million CYPs in 2018.

CHAI used data from the Government of Bangladesh's Ministry of Health and Family Welfare (MOHFW)[46] for 2015, 2016, 2017, and 2018.[47]

41. MSD/Organon (India) Pvt Ltd. is a Merck/MSD company and therefore not a regional or local supplier.
42. MSD B.V. is a Merck/MSD company and therefore not a regional or local supplier.
43. In 2017, Incepta Pharmaceuticals supplied the Ministry of Health and Family Welfare (MOHFW) with injectables via Popular Pharmaceuticals Ltd. Source: Incepta Pharmaceuticals.
44. Manufacturers participating in this report include Merck (MSD) from the Netherlands, Incepta Pharmaceuticals from Bangladesh, and Techno Drugs from Bangladesh
45. Despite the implied value being similar from the two data sources, the supplier shipment volumes indicate different method mix and volumes by method than the MOHFW procurement data; in other words, the supplier shipment volumes provide greater coverage in some methods and gaps in others when compared to the MOHFW procurement data.
46. 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
47. The fiscal year for Bangladesh runs from July 1 to June 30, but for the purposes of this analysis, CHAI summed up the monthly data by calendar year for 2015, 2016, 2017, and 2018.

APPENDIX E – ADDITIONAL MARKETS VISIBILITY

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

PRODUCT NAME	SUPPLIER NAME	2015	2016	2017	2018T
CONDOM	ESSENTIAL DRUGS CO. LTD.	50,000,000	68,850,000		56,854,800
CONDOM	Direct Relief				1,584,000
CONDOM	KHULNA ESSENTIAL LATEX PLANT((KELP)	100,000,000	35,000,000		62,158,800
CONDOM	UNFPA			1,195,200	10,080,000
ECP (2 TAB/PACK)	M/S, RENETA LTD.	100,000	100,000		100,000
IMPLANT (2 ROD)	SOCIAL MARKETING COMPANY (SMC)		17,000	35,000	
IMPLANT (2 ROD)	TECHNO DRUGS Ltd				385,000
IMPLANT (SINGLE ROD)	JAMES INTERNATIONAL		5	2,880	
IMPLANT (SINGLE ROD)	Merck Sharp & Dohme B.V(MSD B.V.).		150,000	3,000	
IMPLANT (SINGLE ROD)	MSD-NV Organon, Organon(India) Private Ltd.	50,000		199,980	
IMPLANT (SINGLE ROD)	UNFPA				200,000
INJECTABLES (DMPA IM)	Helm-AG	14,000,000			
INJECTABLES (DMPA IM)15	TECHNO DRUGS Ltd	2,500,000	8,100,000	5,000,000	18,250,000
INJECTABLES (DMPA IM)15	UNFPA			299,997	
INJECTABLES (DMPA IM)15	USAID			1,000,000	914,800
INJECTABLES (DMPA IM)15	Popular Pharmaceuticals Ltd.			1,000,000	1,000,000
IUD (CT-380A)	SARBAN INTERNATIONAL LTD.	400,000			
IUD (CT-380A)	SMB Corporation Of India				450,000
IUD (CT-380A)	SOCIAL MARKETING COMPANY (SMC)	73,679			
IUD (CT-380A)	Marie Stopes Clinic			65,000	56,000
IUD (CT-380A)	IPAS Bangladesh				9,500
IUD (CT-380A)	UNFPA				200,000
ORAL CONTRACEPTIVE PILL (SHUKHI)	HLL Lifecare Limited	22,469,025			
ORAL CONTRACEPTIVE PILL (SHUKHI)	M/S, RENETA LTD.	20,730,975	54,750,000		54,800,125
ORAL CONTRACEPTIVE PILL (SHUKHI)	Maneesh Pharmaceuticals Limited	22,289,280			
ORAL CONTRACEPTIVE PILL (SHUKHI)	Popular Pharmaceuticals Ltd.	10,800,000	14,250,000		16,700,000
ORAL CONTRACEPTIVE PILL (SHUKHI)	TECHNO DRUGS Ltd	1,710,720			16,700,000
ORAL PILL APON	M/S, RENETA LTD.	1,000,000	3,500,000	750,000	4,000,000

Source: Bangladesh MOHFW, Supply Chain Management Portal, 2019.

APPENDIX E – ADDITIONAL MARKETS VISIBILITY

India

Based on India's Ministry of Health and Family Welfare (MOHFW)[48] Annual Reports for the 2018/2019 fiscal year and 2017/2018 fiscal year,[49] which ends on March 31, CYPs from procured products-based methods[50] totaled 37 million and 25 million respectively. While 2018/2019 CYPs represent an increase from the historic five-year low in 2017/2018, it is a decrease from the average 2013/2014 to 2015/2016 levels of 47 million CYPs.

The 2018/2019 fiscal year CYPs increase from 2017/2018 fiscal year is mainly driven by an increase in IUD CYPs of 19 million from the previous year, bringing IUD CYPs closer to levels seen in the 2015/2016 fiscal year; this increase in IUD CYPs was offset by a decrease of 5 million in male condoms[51] CYPs. Notably, the MOHFW added injectables to its contraceptive basket in the 2017/2018 fiscal year; injectables are now available across the country. Sterilizations decreased slightly, at 3.4 million for the 2018/2019 fiscal year compared to 3.9 million performed for the 2016/2017 fiscal year.

While the MOHFW annual report shipment volumes are based on the 2017/2018 and 2018/2019 fiscal years instead of the calendar year used in this report, by applying the same prices (Exhibit C.9) used for 2017 and 2018 supplier shipment volumes, we estimate that implied value from the annual reports is approximately $44 million in 2016/2017 fiscal year, $45 million in the 2017/2018 fiscal year, and $26 million in the 2018/2019 fiscal year, as compared to the $1 million to $2 million implied by the 2017 and 2018 supplier shipment data.[52]

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, Phaarmasia, Pregna International, SMB Corporation, Cipla, Win-Medicare, and Famy Care, which is now Mylan.

48. Government of India, Ministry of Health and Family Welfare, "Annual Report of Department of Health & Family Welfare for the year of 2018-19", "Annual Report of Department of Health & Family Welfare for the year of 2017-18" ,"Annual Report of Department of Health & Family Welfare for the year of 2016-17", "Annual Report of Department of Health & Family Welfare for the year of 2015-16", "Annual Report of Department of Health & Family Welfare for the year of 2014-15", "Annual Report of Department of Health & Family Welfare for the year of 2013-14"available at: http://www.mohfw.nic.in/documents/publications

49. The fiscal year for India runs from April 1 to March 31.

50. Only modern contraceptive methods from India's MOHFW reports including male condoms, injectables, IUDs, orals, and emergency contraception are included in this analysis.

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

52. The latest reports from India referenced are from the 2016/2017 and 2017/2018 fiscal years and thus are compared to the corresponding supplier shipment data from 2016, 2017, and 2018.

APPENDIX E – ADDITIONAL MARKETS VISIBILITY

EXHIBIT E.2: ANNUAL REPORTS OF DEPARTMENT OF HEALTH & FAMLIY WELFARE (INCLUDES FULL FISCAL YEARS 2013-14 TO 2018-19)

EXHIBIT E.2.1: QUANTITIES SUPPLIED TO STATES/UTS

CONTRACEPTIVES	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Condoms (In million pieces)	394	350.9	394.0	432.8	526.8	
Oral Pills (In lakh cycles)	361.24	551.32	361.2	312.0	275.3	394.4
IUDs (In lakh pieces)	60.42	88.244	60.4	48.1	22.6	64.3
Tubal Rings (In lakh pairs)	19	27.145	19.0	6.4	14.6	12.4
ECP (in lakh packs)	75.8	75.8	86.1	60.8	50.4	128.0
Centchroman Contraceptive Pill (Lakh Strips)				7.1	24.0	170.3
Injectable Contraceptive (Lakh Doses)					27.0	
Pregnancy Test Kits (in lakhs)	100.14	122.4	100.1	124.6	180.4	187.0

EXHIBIT E.2.2 PERFORMANCE OF SOCIAL MARKETING PROGRAMME IN THE SALE OF CONTRACEPTIVE

CONTRACEPTIVES	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Condoms (Million pieces)	698.33	683.93	482.2	399.0	483.2	435.2
Oral Pills (Social Marketing) (lakh cycles)	290.27	276.44	152.8	194.3	205.3	79.3
SAHELI (in Lakh tablets)	279.35	314.6	311.2	321.8	322.8	0.0

*Figures are Provisional

EXHIBIT E.3: 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/Pnadf989.pdf

Sources: **[Exhibit E.2]** *India MOHFW Annual Report, 2015-2016, 2016-2017, 2017-2018, 2018-2019.* **[Exhibit E.3]** *[1] USAID Assessment, 2006; [2] Historical Supplier Shipment Data*

APPENDIX E – ADDITIONAL MARKETS VISIBILITY

Indonesia

Data from public tender documents published by the National Family Planning Coordinating Body (BKKBN)[53] indicates an increase in CYPs procured from product-based methods[54], from 17 million in 2015[55] to 23 million in 2016.[56] By applying the same prices used for the 2015 and 2016 supplier shipment volumes, we estimate that the total implied value from these tender documents is $57 million in 2015 and $75 million in 2016, as compared to the less than $1 million and $3 million implied by the 2015 and 2016 supplier shipment data.

The data also shows that the Indonesian procurement contracts were awarded primarily to regional and local suppliers, including: PT Catur Dakwah Crane Farmasi, PT Harsen Laboratories, PT Kimia Farma, PT Triyasa Nagamas Farma, PT Pratapa Nirmala, PT Sunthi Sepuri, and PT Tunggal.[57] Among them, PT Tunggal is the only supplier currently participating in this report, as part of the GEMs Caucus.[58]

EXHIBIT E.4: 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.5: MULTIPLE TENDER WINNER ANNOUNCEMENTS

YEAR	PRODUCT	DISTRIBUTOR	QUANTITY
2016	Combination Pills	PT Harsen Laboratories	11,648,300
2016	Combination Pills	PT Kimia Farma	17,626,000
2016	Combination Pills	PT Pratapa Nirmala	8,793,200
2016	Combination Pills	PT Sunthi Sepuri	8,829,100
2016	Combination Pills	PT Triyasa Nagamas Farma	17,540,300
2016	3-month Injectables	PT Catur Dakhwah Crane Farmasi	7,289,160
2016	3-month Injectables	PT Harsen Laboratories	21,895,860
2016	3-month Injectables	PT Triyasa Nagamas Farma	14,474,540
2016	3-month Injectables	PT Tunggal Idaman Abadi	7,348,980
2016	2-rod implants w/ inserters	PT Catur Dakhwah Crane Farmasi	633,680
2016	2-rod implants w/ inserters	PT Harsen Laboratories	633,660
2016	2-rod implants w/ inserters	PT Triyasa Nagamas Farma	633,660

Sources: **[Exhibit E.4]** *BKKBN Tender Documents, 2015.* **[Exhibit E.5]** *BKKBN Tender Documents, 2016.*

53. Family Planning and Reproductive Health Unit, National Family Planning Coordinating Body (BKKBN)
54. Procured methods from Indonesia's MOHFW reports include implants, injectables and orals.
55. Tender Winner Announcement documents accessed June 2017 at http://lpse.bkkbn.go.id/eproc/
56. Tender Winner Announcement documents accessed June 2017 at https://e-katalog.lkpp.go.id/backend/katalog/list_produk/63
57. The 2016 tender documents indicate the manufacturer; however, the 2015 documents refer only to distributors.
58. The Generic Manufacturers Caucus for Reproductive Health (GEMS Caucus) comprises generic pharmaceutical manufacturers throughout Asia, Africa, and Europe, united in their commitment to provide safe, quality-assured family planning products that enable women to make choices about their reproductive health; available at https://www.rhsupplies.org/activities-resources/groups/generic-manufacturers-caucus/.

APPENDIX F – KEY TERMS AND DEFINITIONS

CYP
Couple-Years of Protection (CYP) is the estimated protection provided by contraceptive methods during a one-year period e.g. 120 condoms provide a couple protection for one year.

CYP mix
CYP mix refers to the percentage distribution of CYPs shipped by method.

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

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

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

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 per capita annual income less than or equal to $2,500. Although South Africa made an FP2020 commitment, its GNI was greater than $2,500.

APPENDIX G – ACRONYMS

CHAI	CLINTON HEALTH ACCESS INITIATIVE
CYP	COUPLE-YEARS OF PROTECTION
FP	FAMILY PLANNING
FP2020	FAMILY PLANNING 2020
GEMS	GENERIC MANUFACTURERS FOR REPRODUCTIVE HEALTH
IUD	INTRA-UTERINE DEVICE
LARC	LONG-ACTING REVERSIBLE CONTRACEPTIVES
MOH	MINISTRY OF HEALTH
MOHFW	MINISTRY OF HEALTH AND FAMILY WELFARE
RHI	REPRODUCTIVE HEALTH INTERCHANGE
RHSC	REPRODUCTIVE HEALTH SUPPLIES COALITION
SMO	SOCIAL MARKETING ORGANIZATION
UNFPA	UNITED NATIONS POPULATION FUND
USAID	UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT