



## REPORT

# SEXUAL AND REPRODUCTIVE HEALTH COMMODITIES: PRICES, AVAILABILITY AND AFFORDABILITY

Uganda 2019

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**June 2020** 

#### **Acknowledgements**

Special thanks to the data collectors for the collection of the research data.





#### **Publisher**

Health Action International Overtoom 60 (2) | 1054 HK Amsterdam The Netherlands +31 (0) 20 412 4523

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## **EXECUTIVE SUMMARY**

Access to sexual and reproductive health (SRH) services and commodities plays an important role in improving the health of the Ugandan population. Currently, the maternal mortality rate remains high at 336 deaths per 100,000 live births in 2016, and with only 60% of the demand for family planning among women satisfied.

National policies on medicine pricing, procurement strategies, health infrastructure and financing are needed to ensure access to medicines, with a target of 80% availability. However, without reliable information on medicine prices and availability, governments are working in an evidence vacuum that impedes their ability to develop and implement meaningful policies. It is clear that robust data must inform the development of evidence-based policies. In order to fill the information gap, an adapted version of the Health Action International/World Health Organization (HAI/WHO) methodology to assess the price, availability and affordability of medicines has been used since 2017 to measure access to SRH commodities (SRHC) in Uganda. In July 2019, the research was conducted in six regions, in a total of 146 facilities across the public, private and mission sectors.1

The results of this study show that the availability of SRHC remains a challenge, with overall availability at 36%. It was also found that the availability of commodities is highest in the mission sector (40%), followed by the public sector (38%), and lowest in the private sector (31%). Male condoms were the most widely availability contraceptive across all sectors (72% - 93%). In the public sector, implants, intra-uterine contraceptive devices and oral contraceptives ('the pill') were available at 70% or more of facilities.

Availability of crucial maternal health commodities such as oxytocin, misoprostol and magnesium sulphate, used for the prevention and treatment of post-partum haemorrhage and preeclampsia, was relatively high in the public sector (69% - 82%), but lower in the other sectors (10% - 64%). Other drugs considered essential for safe pregnancy, such as methyldopa (hypertension) and calcium gluconate (calcium deficiency) had a lower availability across the sectors (8% - 45%).

A relatively high availability for most of the antibiotics used for treatment of sexually transmitted infections (STIs) and other bacterial infections was observed. Lowest availability in the public sector for antibiotics was gentamicin (30%), while in the private sector lowest availability was found for amoxicillin (40%).

Availability of newborn and child health commodities was also inconsistent. Oral Rehydration Salts (ORS), used to treat dehydration, often as a complication of diarrhea, had a very low availability in the public sector (9%), and in its place zinc-ORS co-pack was more regularly stocked. However, even the availability of these co-packs was also low (44%). The private and mission sectors were more likely to stock ORS and zinc separately. For most of the SRH instruments, some variation in availability was observed, with the public and mission sectors having a better availability than the private sector for almost all instruments.

<sup>1.</sup> Mission sector refers to NfP voluntary sector providers that are outside the public and private sectors.

The study also looked at stock-outs at facilities. In a six-month period prior to survey, stock-outs occurred in 36% of public facilities, 17% of private facilities, and 16% of mission facilities.

The average number of days SRHC were stocked out per month was highest in the public sector (seven days), while they lasted four days in the private sector, and 6 days in the mission sector.

Affordability of SRHC was calculated using the wage of a lowest-paid government worker. In the public sector all SRHC are free to the patient, so affordability was not an issue. In the private sector 12 SRHC were considered unaffordable, with the mission sector having nine SRHC that were considered unaffordable for a lowest-paid government worker.

Healthcare providers were also asked their views on barriers to access that go beyond availability and affordability. They believed that access to family planning services was the most challenging, followed by maternal health and STI management. Key challenges affecting access to SRHC were frequent stock-outs, issues or delays with the supply of the commodities at the facility, and lack of patient knowledge about SRH services. In the private and mission sectors costs to patients was also a major barrier.

Based on the research findings, the following recommendations were formulated:

- 1. The Ministry of Health should increase availability of ultrasound scan machines and safe delivery kits in public health facilities.
- 2. The Ministry of Health should increase availability of medicines used for management of acute pneumonia as well as those for management of acute diarrhea in children, which are the main causes of under 5 mortality in Uganda.
- 3. The Ministry of Health should consider implementation of the redistribution strategy for SRH commodities across facilities, districts and regions to improve availability.
- 4. In order to improve the supply chain gaps in the country, Government should popularize and enforce implementation of the one warehouse, one facility policy.

## 1. BACKGROUND

Despite the tremendous progress made towards Universal Health Coverage (UHC), most of the 4.3 billion people worldwide within the reproductive age group lack access to adequate sexual and reproductive health (SRH) services at some time in their life.<sup>2</sup> All individuals must be empowered to protect themselves from sexually transmitted infections and, when necessary, receive timely and affordable treatment. Unmet family planning (FP) needs are often cited as the challenge towards achieving UHC of SRH services. Further, if or when women decide to have children, they must have access to services that ensure they have a fit pregnancy, safe delivery and healthy baby.

Enormous investment has been made in the improvement of access to SRH commodities (SRHC) in Uganda; The Government of Uganda, through the Uganda National Minimum Health Care Package, has committed to ensuring that the population has universal access to essential medicines, including SRHC. Uganda has an Essential Medicine and Health Supplies List classified by the level of care and a Reproductive Maternal Neonatal Child and Adolescent Health plan which serves as a roadmap for improving health indicators with special focus on reproductive health.3 Over time, these policies have improved several national health indicators. For instance, the maternal mortality ratio decreased from 438 per 100,000 live births in 2011 to 336 in 2016.4 However, Uganda is still experiencing a high unmet need for family planning (28% of married women and 32% of sexually active unmarried women do not access FP), with only 60% of the family planning demand of all women being satisfied.

Informed national level policies and policy decisions on medicine pricing and procurement strategies are essential to ensure universal access to SRHC. For this purpose, reliable information on medicine prices and availability is essential to enable evidence-based decision making and priority setting. A lack of this evidence restricts the ability to make meaningful policy decisions and properly evaluate the impact of any policy intervention. Reliable information is also a useful means of comparison between countries with similar health budgets for knowledge transfer and learning. The Health Action International (HAI)-World Health Organization (WHO) methodology: Measuring Medicine Prices, Availability, Affordability and Price Components was developed to generate valuable data on the price, availability, and affordability of medicines. HAI adapted the methodology to focus on a specific set of SRHC.<sup>5</sup> For the full list of commodities surveyed, please refer to Annex A.

The methodology uses a cross-sectional design with quantitative methods and a semi-structured questionnaire adapted from the standardised HAI-WHO methodology. It collects data on the availability, stock-outs and out-of-pocket patient prices of SRHC in the public, private and mission/private-not-for-profit sectors. It also assesses health provider perspectives on access to SRHC beyond the medicines supply chain. The objective of this survey is to use this information in Uganda to improve access to affordable SRHC for all.

The following report presents the results of the survey carried out by HAI and in-country partner, HEPS-Uganda, in July 2019.

<sup>2.</sup> Starrs AM, Ezeh AC, Barker G, et al. Accelerate progress-sexual and reproductive health and rights for all: report of the Guttmacher-Lancet Commission. Lancet. 2018;391: 2642-92.

<sup>3.</sup> Ministry of Health. Investment Case for Reproductive, Maternal, Newborn, Child and Adolescent Health Sharpened Plan for Uganda. 2016. Kampala, Uganda.

<sup>4.</sup> Uganda Bureau of Statistics (UBOS) and ICF. 2017. Uganda Demographic and Health Survey 2016: Key Indicators Report. Kampala, Uganda: UBOS, and Rockville, Maryland, USA: UBOS and ICF.

<sup>5.</sup> Please refer to the Sexual and Reproductive Health Commodities: Measuring Prices, Availability and Affordability methodology and data entry manual (1st edition) for a full description of the methodology used for data collection.

The report provides data relating to the following questions:

- 1. What is the availability of SRHC across the public, private and mission sectors?
- 2. What price do people pay for SRH commodities?
- 3. How affordable are commodities for the Ugandan population?
- 4. Does the availability and affordability of the same commodities vary across the public, private and mission sectors?
- 5. What do healthcare providers see as the main barriers to access to SRHC?

The following report should be used to highlight potential areas for intervention to improve access to SRHC and monitor changes to access over time

## 2. DATA COLLECTION

This report presents data from the 2019 SRHC survey round using the SRHC: Measuring Prices, Availability and Affordability HAI research methodology. All research assistants in Uganda attended a refresher training, after which data collection took place in July 2019.

Data collection was done at all levels of health facilities, from health centres II to hospitals, including private clinics. Furthermore, sampling of the facilities where data was collected also accounted for representation across the three sectors (public, private and mission sectors) in both urban and rural areas. Selection of districts surveyed was random from the six regions in Uganda to provide a representative picture of the country (see Table 1).

A total of 146 facilities were surveyed across the public, private and mission sectors. The distribution of these facilities is outlined below (Table 2).

Table 1. List of survey districts and their respective regions

Eastern	Central	Northern	South Western	West Nile	Western
Jinja	Kayunga	Dokolo	Kabale	Arua	Hoima
Kamuli	Luweero	Kole	Mbarara	Koboko	Kabarole
Mbale	Mukono	Lira	Rukungiri	Maracha	
	Wakiso	Soroti			

Table 2. Number of health facilities sampled during the survey by sector and setting

Sector	Urban	Rural	Totals (N)
Public	22	33	55
Private	33	15	48
Mission	23	20	43
Total	78	68	146

## 3. RESULTS

#### 3.1 Overall Availability of SRHC

The overall mean availability of SRHCs was 36%, as shown in Table 3. Private sector facilities had the lowest availability of SRHCs (31%), while the overall availability in public and mission sector facilities was 38% and 40%, respectively. The widest variation in availability of SRHCs between urban and rural facilities was noted in the mission sector (45% versus 31%, respectively).

**Table 3.** Mean availability of SRH commodities by sector and location

	Overall (%)	Urban (%)	Rural (%)
Public	38	41	36
Private	31	29	37
Mission	40	45	31
Total	36	39	34

Generally, the availability of SRHCs between 2018 and 2019 slightly reduced from 37% to 36%. The private sector registered the highest reduction in availability of SRHCs from 39% to 31% in 2018 and 2019 survey respectively, while the availability of SRHCs in the public sector increased from 34% to 38% in 2018 and 2019 surveys, as illustrated in Figure 1.

#### 3.2 Availability of Contraceptives

Generally, public sector facilities had a higher availability of contraceptives compared to facilities in the private and mission sectors, as shown in Figure 2. Male condoms were the most available contraceptives in the public, mission and private sectors at 93%, 81% and 72%, respectively. In the public sector, next to male condoms, implants (levonorgestrel and etonogestrel), intra-uterine contraceptive devices (IUCDs) and ethinylestradiol + levonorgestrel (30mcg + 150mcg), a birth control pill, had top rankings with regard to availability: these commodities were available in at least 70% of the facilities surveyed. Contraceptives with extremely low availabilities included the birth control pills ethinylestradiol + norethisterone and ethinylestradiol + levonorgestrel (50mcg + 250mcg), the emergency contraceptive norgestrel, the diaphragm, and the injectable contraceptive norethisterone enanthate. Notably, the combined mean availability of medroxyprogesterone acetate, which is the most widely used injectable contraceptive in Uganda, decreased to 35% compared to 46% in 2018 survey. Furthermore, the private sector facilities had the lowest combined availability for medroxyprogesterone acetate in the 2019 survey at 29%, followed by public sector (36%) and the mission facilities (50%). Details on the availability of contraceptives by urban versus rural settings per sector are given in Annex B.

Figure 1. Overall availability SRHC between 2017 and 2019

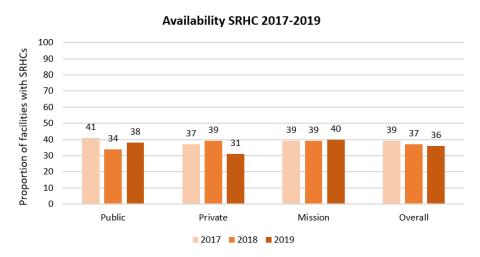
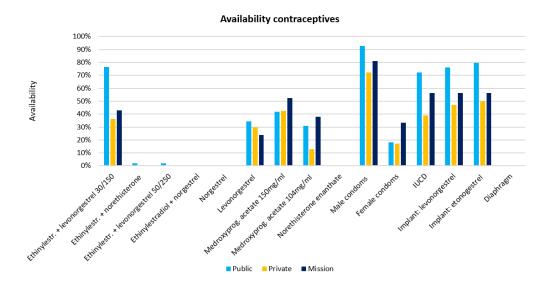


Figure 2. Availability of contraceptive commodities by sector

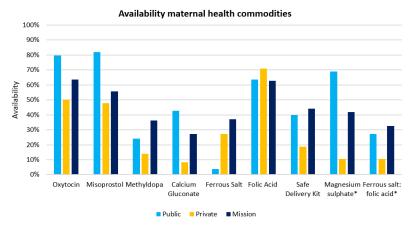


# 3.3 Availability of Maternal Health Commodities

Generally, the maternal health commodities that had the highest availability included oxytocin, misoprostol and folic acid. These are key commodities mainly used in the management of pre-eclampsia in pregnant women. Magnesium sulphate also had a high availability in the public sector, but lower in the private and mission sectors. Ferrous salt, calcium gluconate, methyldopa, as well as the ferrous salt: folic acid combination had the lowest availability across sectors. Details are shown in Figure 3 below.

Misoprostol, used to stop bleeding in pregnancy and child birth (post-partum hemorrhage), had the highest availability in public sector facilities (82%), while the lowest availability was noted among private health facilities at 48%. Oxytocin, which is used to induce labour and prevent postpartum hemorrhage, had the highest availability in public sector facilities (80%), followed by mission and private sector facilities (64% and 50%, respectively). Availability of methyldopa, used in the management of hypertension in pregnancy, was low, with highest availability noted in mission sector facilities (36%), and lowest in private sector facilities (14%). It was also observed that the availability of safe delivery kits increased from 0% during the 2018 survey to 34% during the 2019 survey. Details are given in Annex C on the availability of maternal health commodities by urban versus rural settings per sector.

Figure 3. Availability of maternal health commodities by sector



# 3.4 Availability of Antibiotics and Antifungals

In all three sectors, availability was highest for metronidazole tablets and benzathine penicillin injection, both used in the management of gynecologic bacterial infections. Metronidazole was available in at least 70% of facilities across the sectors, while benzathine penicillin was around 70% across the sectors. Clotrimazole, either in pessary or cream formulation, was available in 60% or more of facilities. Details are shown in Figure 4 below.

Ampicillin, used in the management of neonatal sepsis, had a higher availability in the public sector (67%) compared to the private (50%) and mission (58%) sectors. Conversely, availability of gentamicin was lower in the public sector (30%) compared with the private (67%) and mission (67%) sectors.

Lowest availability was noted for procaine benzylpenicillin and amoxicillin tablets. Amoxicillin, used for treatment of acute pneumonia in children under the age of five years, had a similar availability between the public and private sectors (40%), while it was higher in the mission sector (49%). Even though availability is still low, it improved in the public and private sector facilities compared to the 2018 survey, when the availability was 20% and 30%, respectively. On the other hand, availability of amoxicillin in the mission facilities slightly reduced from 52% (2018 survey) to 49% (2019 survey). Details are given in Annex D on the availability of antibiotics and antifungals by urban versus rural settings per sector.

## 3.5 Availability of Newborn and Child Health Commodities

Infection control commodities such as antiseptic had the highest availability (80%, 85% and 86% in the public, private and mission facilities, respectively), while chlorhexidine, used for cord care and prevention of associated infections among newborns, had the lowest availability (25%, 6% and 18% for the public, private and mission facilities, respectively). Details are shown in Figure 5 below.

Zinc and oral rehydration sachets (ORS) are commodities used for the management of acute diarrhea, which is one of the leading causes of death among children under the age of five years in Uganda. Whereas the private and mission sector facilities often have ORS, zinc and zinc-ORS co-packs, the public sector facilities are expected to have only zinc-ORS co-packs. This is because the National Medical Stores (NMS) supplies zinc-ORS co-packs to the public facilities, instead of the individual ORS or zinc products, hence the low availability of these products in public facilities. The analysis was cognizant of this and took into account these variations.

Newborn and child health commodities that had a higher availability in the public sector compared to the private and mission sectors included dexamethasone (76% versus 50% and 46%, respectively), and chlorhexidine (26% versus 6% and 19%, respectively). Annex E contains the details on the availability of child health commodities by urban versus rural settings per sector.

Figure 4. Availability of antibiotics and antifungals by sector

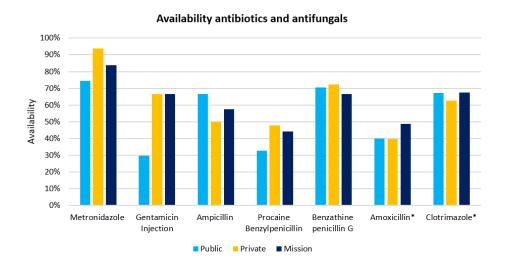


Figure 5. Availability of newborn and child health commodities

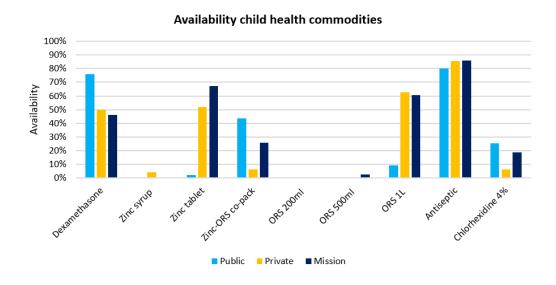
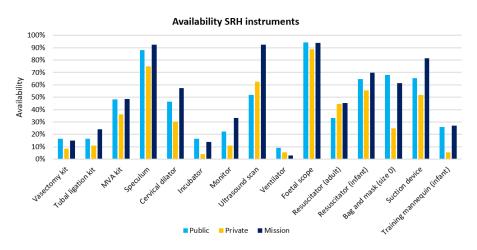


Figure 6. Availability of SRH instruments by sector



#### 3.6 Availability of SRH Instruments

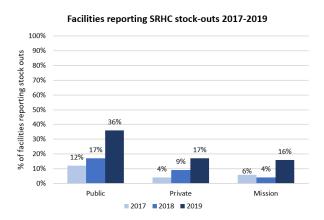
There was a wide variety in availability of SRH instruments. For instance, the foetal scope exhibited the highest availability across the three sectors (94% in public, 89% in private, and 94% in mission sector facilities), while the ventilator was hardly available across the sectors: 9% in public facilities, 6% in private facilities and 3% in mission facilities. There was also a low availability of vasectomy kits, tubal ligation kits, incubators, monitors and training mannequins for infant resuscitation. Interestingly, most mission facilities (92%) had an ultrasound scan available, compared to 52% of the public facilities and 63% of private facilities. n addition, details of availability of SRH instruments by urban versus rural settings per sector are given in Annex F.

#### 3.7 Stock-outs of SRH Commodities

In this survey, 105 of the 146 facilities had stock cards for at least one SRH commodity; that is, 50 public, 16 private, and 39 mission facilities. Whereas there were more public facilities in the rural areas that had stock cards compared to the urban facilities, none of the private facilities in the rural areas had stock cards. Stock-out information was only recorded based on what could be observed on a stock card. As a result, for the cases where stock information was not recorded, the stock-out days could not be counted.

Generally, the proportion of facilities reporting stock-outs within a period of six months prior to the survey date increased across the three sectors over the last three years. Details are shown in Figure 7. The average number of stock-out days has greatly decreased since 2017, but slightly increased since 2018. For example, among public sector facilities, the number of stock-out days reduced from 19 days (2017 survey) to seven days (2019 survey). In addition, the number of stock-out days among private and mission facilities reduced from 20 days (2017 survey), to four days and six days (2018 and 2019 surveys, respectively). Details on number of stock-out days per commodity are given in Annex G.

**Figure 7.** Percentage of facilities reporting stockouts of SRHCs



On average, 36% of public facilities, 17% of private, and 16% of mission facilities had experienced a stock-out within a period of six months prior to the survey date. Private sector facilities had a slightly lower average number of stock-out days per month of SRHCs (two days) compared to mission and public facilities (three and six days, respectively). This could be attributed to lower lead time in the private sector, where commodities are procured and delivered when needed, often using the quickest available means of transport, compared to public facilities that expect to receive commodities every two months following the delivery schedules of the National Medical Store.

Generally, public facilities reported a higher percentage of stock-outs for contraceptives compared to the private and mission sector facilities. Specifically, ethinylestradiol + norgestrel, medroxyprogesterone acetate 150 mg/ml, and the diaphragm had been stocked out in the previous six months in 50% of the public facilities. In addition, half of the mission facilities surveyed had experienced stock-out of ethinylestradiol + levonorgestrel 30mcg/150mcg and ethinylestradiol + levonorgestrel 50mcg/250mcg in the previous six months.

Figure 8. Percentage of facilities reporting stock-outs of contraceptive commodities by sector

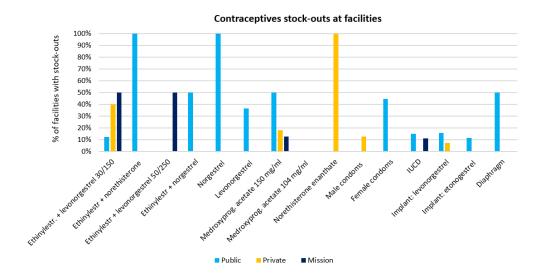
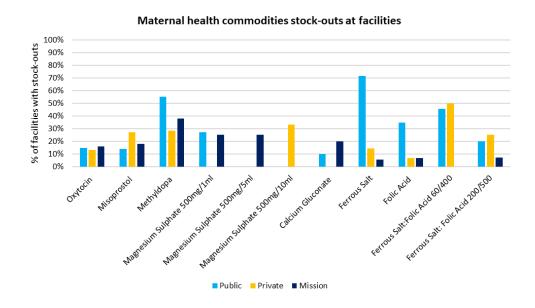


Figure 9. Percentage of facilities reporting stock-outs of maternal health commodities by sector



Oxytocin and misoprostol were stocked out at about 10 to 20% of health facilities across the sectors. In the public sector, methyldopa and ferrous salt were the commodities most commonly stocked out (55% of facilities and 71.4% of facilities, respectively).

Generally, the percentage of facilities that had experienced stock-outs of the zinc-ORS copack was comparable between the public (49%) and private sector (40%), and was a bit lower for the mission sector (39%). However, 54% of the public facilities had experienced stockout of ORS 1L, compared to 9% and 11% in the private and mission sectors respectively.

This could be attributed to the fact that the NMS supplies mainly zinc-ORS co-packs that are sometimes separated into individual products by the health workers at the facilities in order to meet the present need.

Antibiotics and antifungal commodities experienced the highest percentage of stockouts in the public sector. In the public sector, amoxicillin 125mg and 250mg had the highest proportion of facility stock-outs (92% and 57%, respectively), while clotrimazole cream and gentamicin were also regularly stocked out at 53% and 46%, respectively, as illustrated in Figure 8.

Figure 10. Percentage of facilities reporting stock-outs of child health commodities by sector.

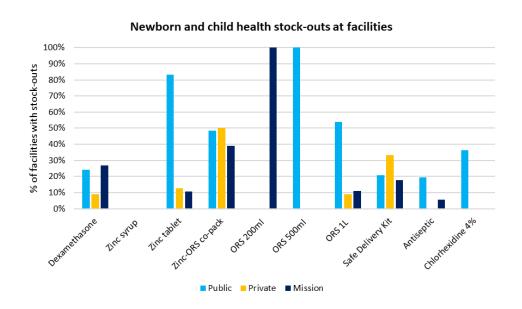
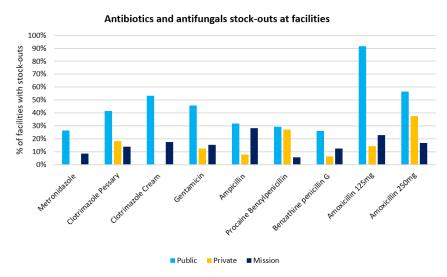


Figure 11. Percentage of facilities reporting stock-outs of antibiotics and antifungals by sector.



## 3.8 SRHC Prices and Affordability in Public, Private and Mission Sectors

This section presents prices of SRHCs at private and mission sector facilities. It's important to note that the public facilities in Uganda offer services and commodities to clients at no cost. The SRHCs that were not included in the price analysis are those that are not typically sold, such as equipment and devices (e.g., incubators and monitors). Prices were measured for one unit of each commodity; a unit is the single most effective amount of a commodity that can be used (e.g., one tablet, a strip of 28 contraceptive tablets, 1ml or 1 vial).

Affordability of the commodities was measured by collecting the pricing information of commodities at the facilities, and then comparing this with the daily wages of the lowest paid government worker (LPGW) in 2019 (6,255 Uganda Shillings (UGX)). According to the WHO guidelines, a commodity is considered affordable if it costs no more than a day's income. Therefore, affordability was calculated according to the cost for one treatment regimen (e.g., one strip of contraceptive pills, one vial of injectable contraceptive, one treatment regimen of antibiotics, etc), compared to the daily wage of the LPGW. Details of the treatment regimens used in the calculations are given in Annex H.

The most interesting findings were observed for contraceptives. Among all the contraceptives surveyed, IUCDs were on average the most expensive commodity in private sector facilities (UGX 15,000), while medroxyprogesterone acetate (104 mg in 1 ml) cost UGX 3,000 in private facilities and UGX 3,000 for the mission facilities respectively followed by implants (with an average of UGX 7,361 in the private sector compared to UGX 1,688 in the mission sector facilities). Among maternal health commodities, safe delivery kits had the highest average retail price (UGX 15,333) in the private sector compared to the mission sector (UGX 6,653). In addition, magnesium sulphate also had a higher average of retail price of UGX 9,092 in the private sector compared to UGX 8.136 in the mission sector.

Since all commodities are free in the public sector, affordability was optimal (see Figure 12). SRHCs in the mission sector facilities were more affordable compared to those in private sector facilities. In the mission sector, 74% of SRHCs were considered affordable, compared to 64% of those in the private sector. In both the mission and private sectors, seven of the commodities costed more than three days' wages of the LPGW, and are therefore considered very expensive. In both sectors this included magnesium sulphate (500mg in 1ml and 500mg in 10ml), calcium gluconate, gentamicin, ampicillin and procaine benzylpenicillin. In the private sector it also included clotrimazole pessary, while in the mission sector magnesium sulphate (500mg in 5ml) also costed more than 3 days' wages for a LPGW. Details on affordability of SRHC in the sectors are shown in Annex I.

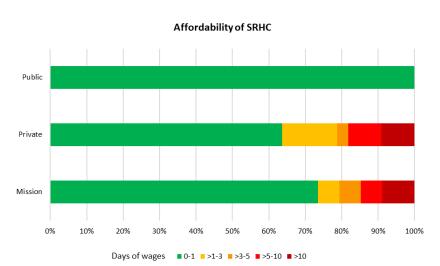


Figure 12. Affordability of SRHCs by sector

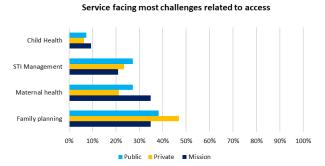
#### 3.9 Stakeholder Interviews

The following section focuses on access to SRHC from the perspective of the interviewed health providers. In each health facility, the healthcare provider that had assisted in the data collection was asked a few questions regarding access to SRHC challenges, and recommendations to improve access.

#### 3.9.1 Key Challenges to SRHC Access

Respondents were first asked which one of the four categories of SRH services outlined (family planning, maternal health, STI management and child health) they believed faced the most challenges relating to access to SRHCs. Overall, most of the respondents (40%) indicated that

Figure 13. SRH service facing the most challenges related to access to commodities according to respondents



family planning commodities faced the most challenges relating to access, while only 8% of respondents thought this were the child health commodities. Details are shown in Figure 13. Annex J provides a breakdown of age groups experiencing challenges in accessing SRH services.

Thereafter, based on the answer given to the above question, respondents were asked what they thought were the key challenges to SRHC access. They were provided with six options and given the opportunity to add further suggestions. Respondents could choose as many options as they thought were applicable.

According to respondents, the main challenge to accessing SRHCs in the private and mission sectors was the cost of medicines to patients (44% and 42%, respectively). In the public sector the two main challenges to access identified were: frequent stock outs at the facility (51%), issues or delays with supply of the commodities to the facility (33%) and lack of knowledge of patients about SRH services/commodities available (27%). Other issues that were raised as challenges to access SRHCs in the public sector included shortage of human resources for health, transport costs and perceived stigma (see Figure 14).

Key challenges related to access to SRH services

#### Transport costs to the facility Perceived stigma associated with accessing SRHC Religious or cultural beliefs Lack of patient knowledge about SRH services Costs of medicines to patients Training of staff Shortage of staff Frequent stock-outs at central level Frequent stock-outs at facility level Issues/delays with supply of commodities to facility No demand for the SRHC 10% 20% 40% 50% 60% 70% 80% 90% 100% 30% ■ Public ■ Private ■ Mission

Figure 14. Key challenges related to accessing SRHC

## 3.9.2 Reasons for Stock-outs of SRHCs at Facilities

Respondents were also asked about their opinion on the causes of SRHC stock-outs at their respective facilities. This question was asked only if stock cards were available at a given facility. In the public sector, the main issue, raised by 38% of respondents was that SRH commodities that were ordered for were not supplied or were being supplied in very limited quantities (see Figure 15). In addition, 31% of the respondents raised more supply chain bottlenecks such as, delays delivery of supplies. However, in mission and private sectors the unaffordability of SRHCs was the main reason cited as the cause for stock outs (37% and 31% respectively).

## 3.9.3 Recommendations to Improve Access to SRHC

Respondents were also asked about their recommendations to improve access to SRHCs on both the supply and demand side. On the supply side, most (42%) of the respondents in the

public sector recommended improvements in the availability of SRH commodities at the facility level as well timely supply of these commodities. In addition, 38% of the respondents in the private sector facilities also recommended improvements in the availability of SRH commodities at the facility level. In addition, 28% of the respondents in the private sector facilities recommended reduction of costs of SRH commodities. Details are shown in Annex J.

On the demand side, a majority of the respondents in the public, private and mission facilities recommended that client education and community sensitisation are key to improve access. Increasing male partner involvement was a recommendation made by 40% of respondents in the public facilities. Respondents in the mission and private sector also recommended this, as well as a reduction in cost of accessing these SRHC. Details are shown in Figure 16 below.



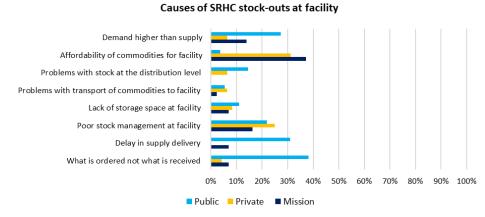
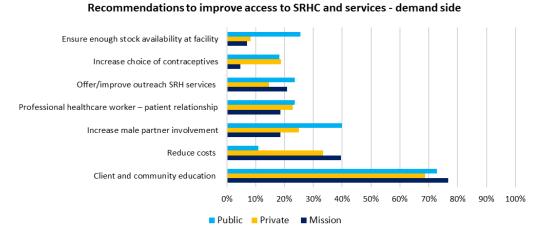


Figure 16. Recommendations to improve access to SRHCs on the demand side.



## 4. DISCUSSION

This is an annual survey conducted as part of HAI's SRHC research under the Health Systems Advocacy (HSA) Partnership, with the objective of highlighting the status of access (availability and affordability) to SRHC in Uganda. Overall availability of SRHCs was low (36%), with comparable findings across the public (38%) and mission sector (40%) facilities, and slightly lower in the private sector (31%). These findings are comparable to the findings in the surveys conducted in 2017 and 2018, in which overall availability was 39%.6

Male condoms had the highest availability among contraceptive commodities in all three sectors. This could be as a result of the substantial investments made towards increasing access to this particular product.<sup>7</sup> For contraceptives, availability was generally higher among public sector facilities compared to the other sectors, with lowest availability in the private sector.

Among maternal health commodities, oxytocin, misoprostol, magnesium sulphate, and folic acid had the highest availability. Combined mean availability of magnesium sulphate (used for treatment of eclampsia) was highest in the public sector (69%) compared to the mission (42%) and private (10%) facilities. This progress could be attributed to the deliberate efforts from government and partners to improve availability of magnesium sulphate, especially among public sector facilities. In addition, the availability of safe delivery kits (mama kits) increased from 0% in 2018, to 34% in 2019. This could be attributed to increased funding from the government of Uganda that was earmarked for the purchase of these kits during the financial year 2018/19. However, challenges with affordability of magnesium sulphate and safe delivery kits in the private and mission sectors remained.

Generally, the facilities assessed had stocked commodities for the management of bacterial and fungal infections, with the highest availability found for metronidazole (84%). In addition, amoxicillin tablets (250mg) registered an improvement in the availability among public sector facilities (36%) compared to the 2018 survey (19%). However, availability was still suboptimal. Further, there were affordability challenges for procaine benzylpenicillin in both the private and mission sector, which is commonly used for treating syphilis infections.

Chlorhexidine, which is used for cord care and prevention of associated infections among newborns, had the lowest overall availability among commodities for newborn health, which highlights potential risks of infection that newborn babies still face.

Among new-born and child health commodities, the availability of zinc was particularly low in the public sector facilities, mainly due to the fact that these facilities are supplied with the zinc-ORS co-pack only. During the survey healthcare workers in the public sector shared that the few components of the commodities found that are not co-packs arise as a result of health workers that tend to separate the co-pack to ease administration and management of acute diarrheal conditions. On the other hand, it was also noted that availability of zinc-ORS co-pack in the public sector facilities dropped from 56% to 44% comparing the 2018 and 2019 surveys.

On average, 36% of public facilities, 17% of private, and 16% of mission facilities experienced a stock out within a period of six months prior to the survey date. This was an increase in stock-outs across the sectors, with the biggest increase seen in the public sector.

<sup>6.</sup> Health Action International. Sexual & Reproductive Health Commodities: Measuring Prices, Availability & Affordability Data Collection Report – Uganda 2017. (Amsterdam: Health Action International, 2017), p. 1–35.

<sup>7.</sup> Uganda Bureau of Statistics (UBOS) 2019. 2018 Resource Flows Survey on Family Planning in Uganda – Main Report, Kampala, Uganda.

The mean number of stock-out days generally reduced among public sector facilities, while it increased for the mission and private sector facilities. However, public sector facilities still exhibited the highest number of stock-out days compared to the private and mission sectors. This could be attributed to the shorter lead time between ordering and receipt of commodities in the private sector compared to the public sector. Oftentimes, purchasing of commodities in the private sector is done on an ad hoc basis; based on clients' needs at that time, where orders are made to the wholesaler over phone, payment made through mobile money transaction, and products delivered using public means of

transport on the same day (or the following day from bigger suppliers).<sup>8</sup> This takes a lot less time in comparison with the public or mission sectors.

In addition, a large majority (92%) of the public sector facilities experienced a stock-out of amoxicillin 125mg at least once in the last six months prior to the survey date, while 57% of the facilities had also experienced a stock-out of amoxicillin 250mg over the same review period. This is indicative of regular occurrences of instances where children with acute pneumonia are not able to access their treatment in public sector facilities due to stock-outs of dispersible amoxicillin.

## 5. RECOMMENDATIONS

- 1. The Ministry of Health should increase availability of ultrasound scan machines and safe delivery kits in public health facilities since these are the key kits and instruments among the maternal health commodities that had the least availability.
- 2. The Ministry of Health should increase availability of medicines used for management of acute pneumonia as well as those for management of acute diarrhea in children, which are the main causes of under 5 mortality in Uganda.
- 3. The Ministry of Health should consider implementation of the redistribution strategy<sup>9</sup> for SRH commodities across facilities, districts and regions to improve availability. The redistribution strategy involves transfer of commodities from one facility to another. This strategy has been piloted and shown to be useful for some key commodities like those used for malaria management.
- 4. In order to improve the supply chain gaps in the country, Government should popularize and enforce implementation of the one warehouse, one facility policy. Whereas the current system in Uganda allows for one health facility to be supplied commodities from more than one warehouse source, this has resulted in confusion and several other bottlenecks in the supply chain of the pharmaceutical commodities. Therefore, the Ministry of Health should operationalise the one-warehouse one-facility policy.

<sup>8.</sup> HEPS-Uganda, Assessing Access to Co-Paid Artemisinin-Based Combination Therapies for Malaria in Uganda. 2017, Coalition For Health Promotion and Social Development (HEPS-Uganda): Kampala.

<sup>9.</sup> MoH. 2012. Uganda National Redistribution Strategy for Prevention of Expiry and Handling of Expired Medicines and Health Supplies. Kampala, Uganda. http://library.health.go.ug/publications/medicines/uganda-national-redistribution-strategy-prevention-expiry-and-handling 10. GFTFATM. 2013. CCM Request for Interim Funding. http://www.globalfundccm.org.ug/wp-content/uploads/2014/grants/Uganda-CCM%20\_HIV%20Interim%20Funding%20Application%20Concept%20note.pdf

# ANNEX A – LIST OF COMMODITIES SURVEYED WITH MEAN AVAILABILITY

**Table 1.** Commodities surveyed and the overall mean availability in Uganda.

Commodity	Overall Mean availability
Foetal scope	93%
Speculum	87%
Metronidazole	84%
Antiseptic	84%
Male condoms	83%
Benzathine penicillin G	70%
Oxytocin injection	67%
Implant: etonogestrel	66%
Folic Acid	66%
Suction device	66%
Ultrasound scan	65%
Resuscitator (infant size)	63%
Implant: levonorgestrel	63%
Dexamethasone	63%
Misoprostol	63%
Ampicillin	59%
Bag and mask (size 0)	59%
IUCD	58%
Ethinylestradiol + levonorgestrel 30mcg/150mcg	55%
Clotrimazole Pessary	55%
Gentamicin Injection	50%

Manual Vacuum Aspiration (MVA) kit	45%
Cervical dilator	45%
Medroxyprogesterone acetate 150 mg/ml	44%
ORS 1L	42%
Procaine Benzylpenicillin	41%
Resuscitator (adult size)	40%
Clotrimazole Cream	38%
Zinc tablet	38%
Safe Delivery Kit	34%
Levonorgestrel	31%
Magnesium sulphate 500mg/5ml	28%
Calcium Gluconate	28%
Amoxicillin 250mg	27%
Zinc-ORS co-pack	26%
Medroxyprogesterone acetate 104 mg/ml	25%
Methyldopa	24%
Monitor	22%
Amoxicillin 125mg	22%
Ferrous salt	21%
Female condoms	20%
Training mannequin for infant resuscitation	20%
Ferrous salt: folic acid 200mg/500mcg	18%
Chlorhexidine 4%	17%

Tubal ligation kit	17%
Vasectomy kit	14%
Incubator	12%
Magnesium Sulphate 500mg/1ml	10%
Magnesium Sulphate 500mg/10ml	10%
Ventilator	7%
Ferrous salt: folic acid 60mg/400mcg	5%
Zinc syrup	1%
Ethinylestradiol + norethisterone	1%
Ethinylestradiol + levonorgestrel 50mcg/250mcg	1%
ORS 500ml	1%
Ethinylestradiol + norgestrel	0%
Norgestrel	0%
Norethisterone enanthate	0%
Diaphragm	0%
ORS 200ml	0%

## ANNEX B – AVAILABILITY OF CONTRACEPTIVES PER SECTOR, BY URBAN AND RURAL SETTING

Figure 1. Percentage availability of contraceptives in the public sector, by setting.

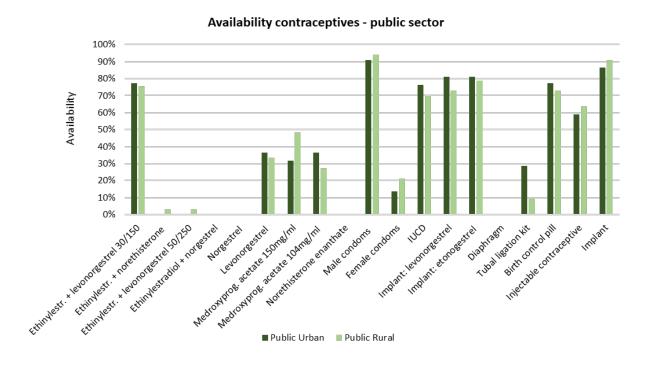


Figure 2. Percentage availability of contraceptives in the private sector, by setting.

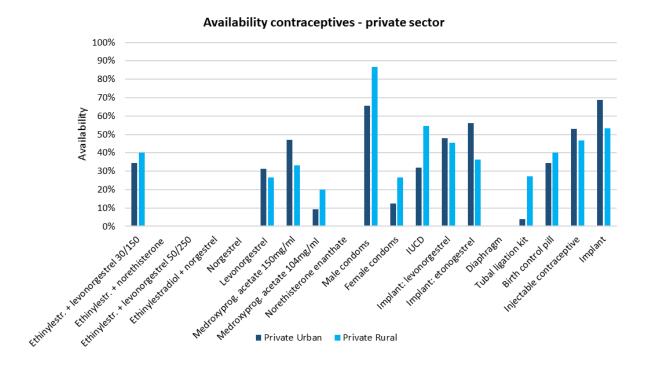
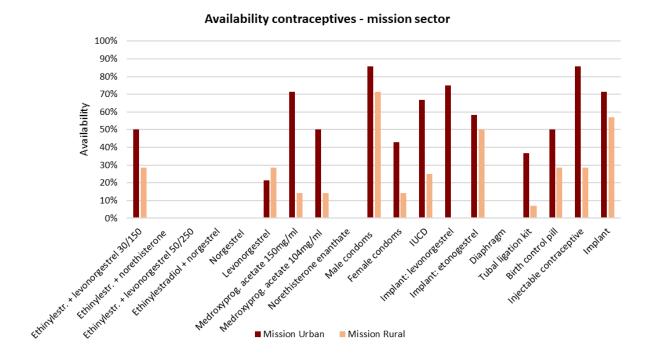


Figure 3. Percentage availability of contraceptives in the mission sector, by setting.



## ANNEX C – AVAILABILITY OF MATERNAL HEALTH COMMODITIES PER SECTOR, BY URBAN AND RURAL AREAS

Figure 4. Percentage availability of maternal health commodities in the public sector, by setting.

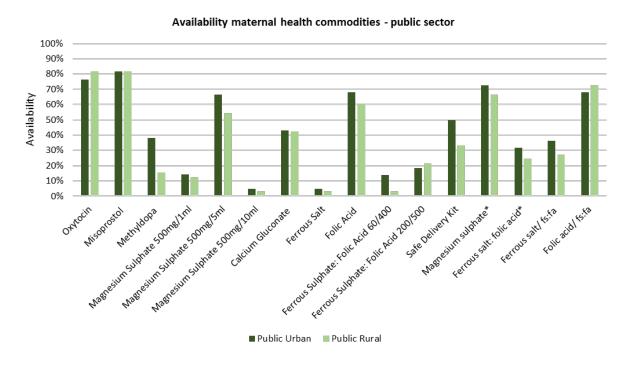


Figure 5. Percentage availability of maternal health commodities in the private sector, by setting.

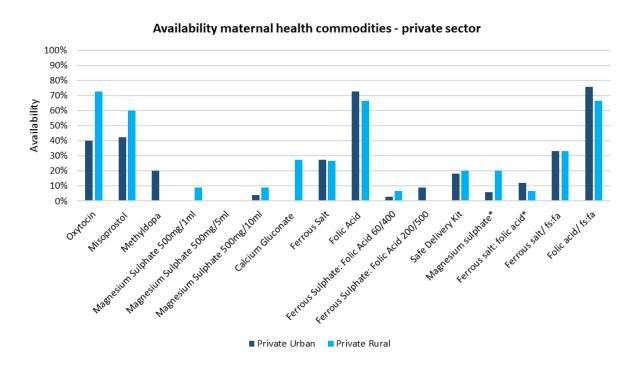
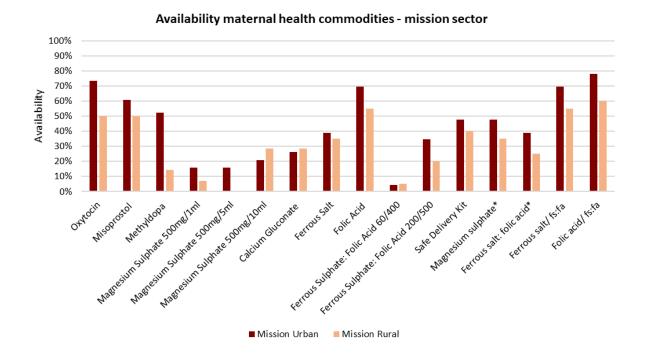


Figure 6. Percentage availability of maternal health commodities in the mission sector, by setting.



# ANNEX D - AVAILABILITY OF ANTIBIOTICS AND ANTIFUNGALS PER SECTOR, BY URBAN AND RURAL AREAS

Figure 7. Percentage availability of antibiotics and antifungals in the public sector, by setting.

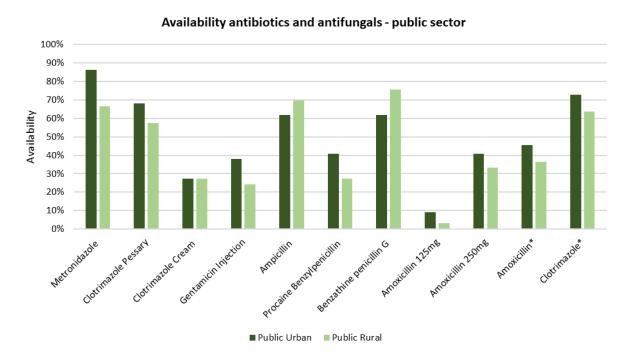


Figure 8. Percentage availability of antibiotics and antifungals in the private sector, by setting.

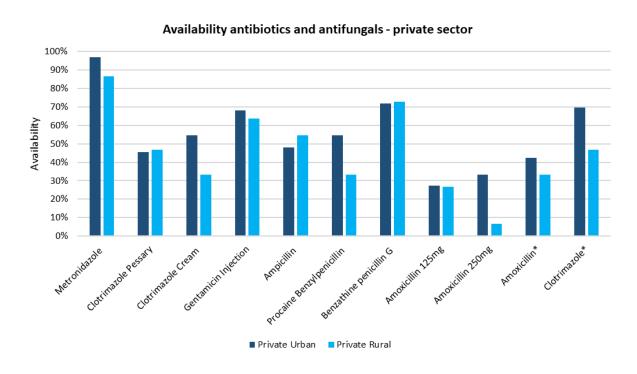
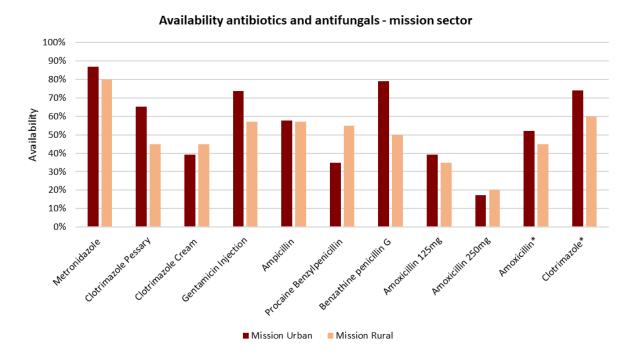


Figure 9. Percentage availability of antibiotics and antifungals in the mission sector, by setting.



# ANNEX E – AVAILABILITY OF CHILD HEALTH COMMODITIES PER SECTOR, BY URBAN AND RURAL AREAS

Figure 10. Percentage availability of child health commodities in the public sector, by setting.

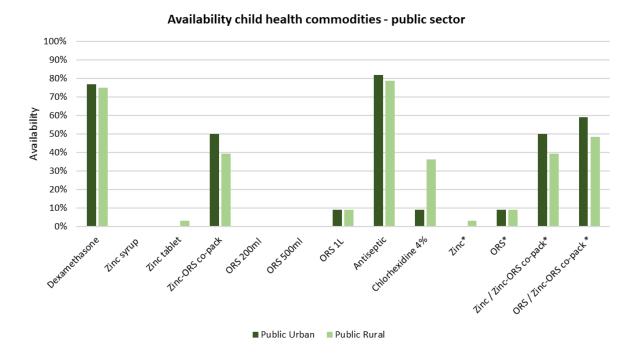
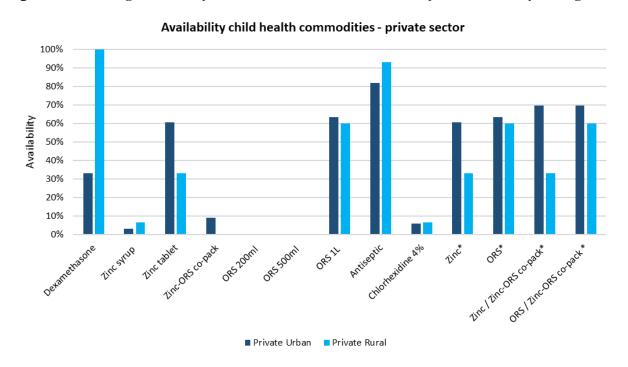
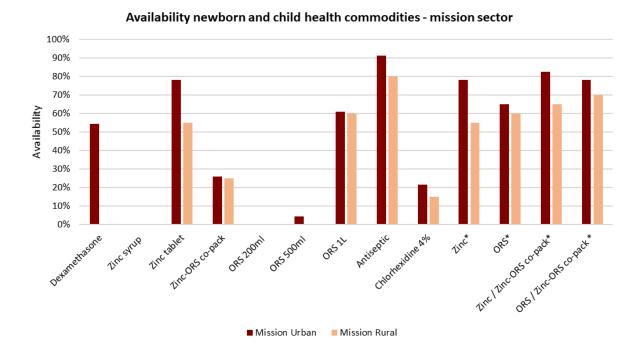


Figure 11. Percentage availability of child health commodities in the private sector, by setting.



**Figure 12.** Percentage availability of newborn and child health commodities in the mission sector, by setting.



## ANNEX F – AVAILABILITY OF SRH INSTRUMENTS PER SECTOR, BY URBAN AND RURAL AREAS

Figure 13. Percentage availability of SRH instruments in the public sector, by setting.

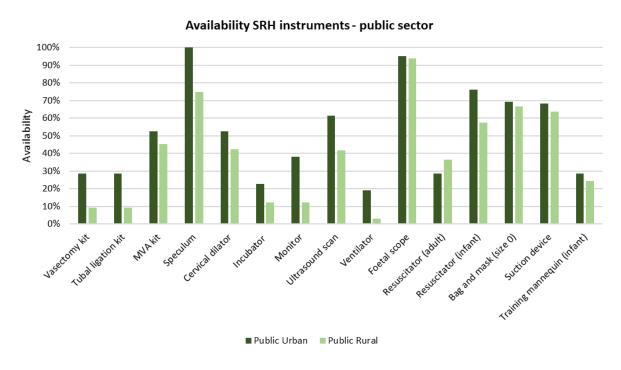


Figure 14. Percentage availability of SRH instruments in the private sector, by setting.

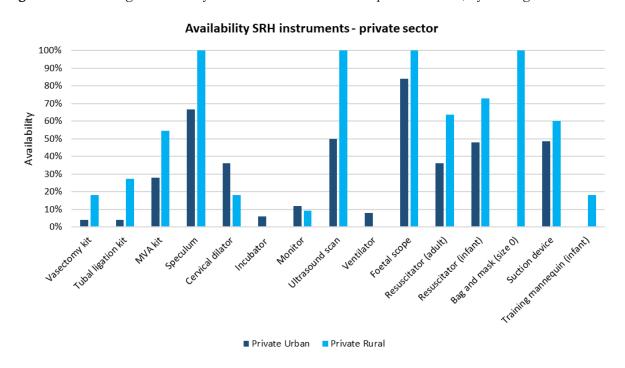
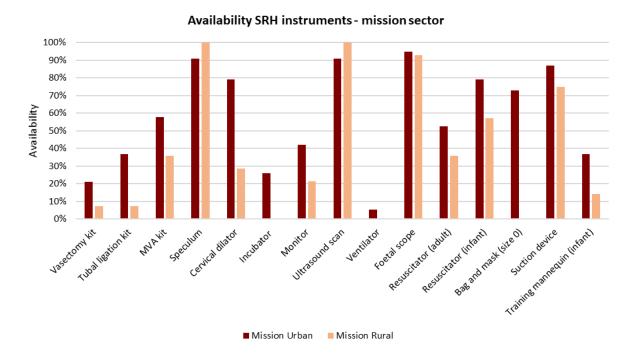


Figure 15. Percentage availability of SRH instruments in the mission sector, by setting.



#### ANNEX G. AVERAGE NUMBER OF STOCK-OUT DAYS PER MONTH

Figure 16. Number of stock-out days per month for contraceptives

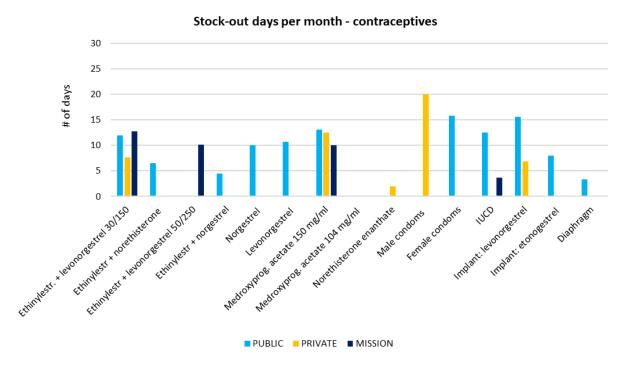


Figure 17. Number of Stock out days per month for maternal health commodities

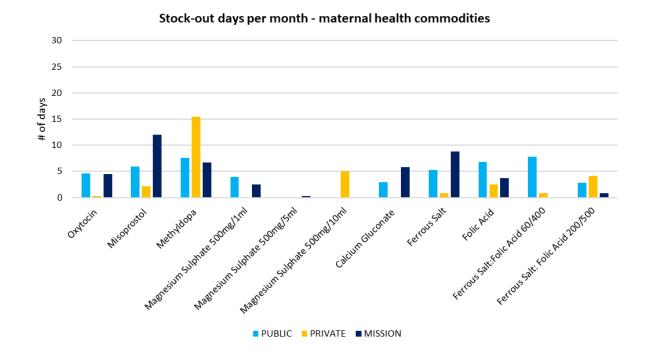


Figure 18. Number of Stock out days per month for antibiotics and antifungals

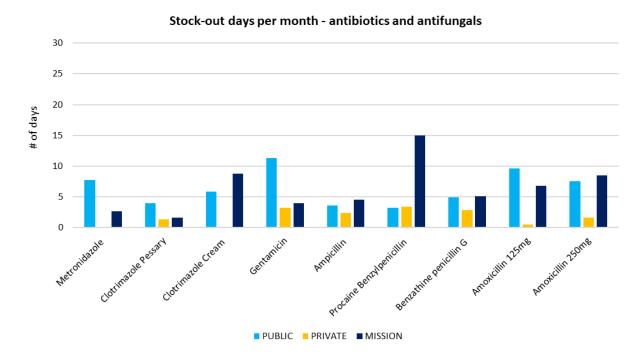
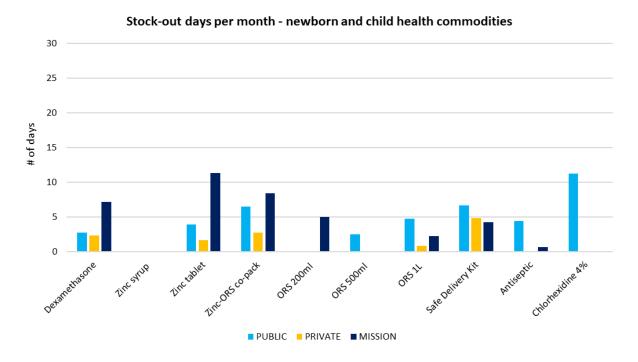


Figure 19. Number of Stock out days per month for newborn and child health commodities



## **ANNEX H - TREATMENT REGIMENS**

**Table 2.** Treatment regimens used per commodity for affordability calculations.

	Treatment Regimen			
	Treatment Units	Treatment Days	Total	
Ethinyl/levonorgestrel	1	1	1	
Ethinyl/norethisterone	1	1	1	
Levonorgestrel 300mcg	1	1	1	
Levonorgestrel 750mcg	1	1	1	
Medroxyprogesterone acetate	1	1	1	
Norethisterone enanthate	1	1	1	
Male Condoms	1	1	1	
Female Condoms	1	1	1	
IUCD	1	1	1	
Levonorgestrel Implant	1	1	1	
Etonogestrel Implant	1	1	1	
Diaphragm	1	1	1	
Oxytocin injection	1	1	1	
Misoprostol	1	1	1	
Metronidazole	6	5	30	
Methyldopa	3	30	90	
Magnesium sulphate 500mg/2ml	18	1	18	
Magnesium sulphate 500mg/10ml	18	1	18	
Calcium gluconate	1	1	1	
Clotrimazole pessary	1	6	6	
Clotrimazole cream	1	1	1	
Gentamicin injection	1	10	10	
Ampicillin	4	5	20	
Procaine benzylpenicillin	1	10	10	
Benzathine benzylpenicillin G	1	1	1	
Amoxicillin 125mg	3	5	15	
Amoxicillin 250mg	3	5	15	
Dexamethasone	1	1	1	
Ferrous Salt	1	30	30	
Folic Acid	1	30	30	
Ferrous salt: Folic Acid 60/400	1	30	30	
Ferrous salt: Folic Acid 150/500	1	30	30	
Zinc 10mg/5ml syrup	1	1	1	
Zinc 20mg	1	10	10	
Zinc ORS co-pack	1	1	1	
ORS 200ml	1	1	1	
ORS 500ml	1	1	1	
ORS 1L	1	1	1	

## **ANNEX I - AFFORDABILITY OF SRHC**

**Table 3.** Number of days income needed for treatment in the private and mission sectors

Publ			Affordability (days of wages)		
	ic	Private	Mission		
Ethinylestradiol + levonorgestrel (30mcg + 150 mcg) 0		0.18	0.02		
Ethinylestradiol + norethisterone (50mcg + 1.0 mg) 0		NA	NA		
Ethinylestradiol + levonorgestrel (50mcg + 250 mcg) 0		NA	NA		
Ethinylestradiol + norgestrel (30mcg + 300 mcg) NA	1	NA	NA		
Norgestrel (750 mcg) NA	\	NA	NA		
Levonorgestrel (750 mcg) 0		1.56	0.29		
Medroxyprogesterone acetate (150 mg in 1 ml) 0		0.62	0.12		
Medroxyprogesterone acetate (104 mg in 1 ml) 0		0.38	0.16		
Norethisterone enanthate (200 mg/ml in 1 ml vial)	\	NA	NA		
Male condoms 0		0.12	0.00		
Female condoms 0		0.02	0.00		
Intrauterine Contraceptive Device (IUCD) 0		2.56	0.37		
Implant: levonorgestrel 0		1.16	0.29		
Implant: etonogestrel 0		1.61	0.18		
Diaphragm NA	\	NA	NA		
Oxytocin injection (10IU, 1ml) 0		0.56	0.24		
Misoprostol (tablet, 200mcg) 0		0.56	0.34		
Methyldopa (250mg) NA	\	NA	NA		
Magnesium Sulphate (500mg in 1ml) 0		218.81	127.64		
Magnesium Sulphate (500mg in 5ml) 0		NA	10.94		
Magnesium Sulphate (500mg in 10ml vial) 0		17.91	9.56		
Calcium Gluconate (100mg/ml in 10ml ampoule) 0		12.64	16.47		
Ferrous Salt (200mg) NA	\	0.02	0.01		
Folic Acid (5mg) 0		0.50	0.96		
Ferrous Salt: Folic Acid (60mg iron + 400mcg folic acid) 0		0.49	0.16		
Ferrous Salt: Folic Acid (200mg iron + 500mcg folic acid) 0		0.36	0.31		
Metronidazole (200mg) 0		0.50	0.41		
Clotrimazole Pessary (100mg) 0		5.06	2.80		
Clotrimazole Cream (1%, 15g tube) 0		0.58	0.38		
Gentamicin Injection (80mg/2ml) 0		3.05	3.05		
Ampicillin (500mg powder for injection) 0		7.03	6.07		
Procaine Benzylpenicillin (powder for injection 4MU) 0		6.16	3.24		
Benzathine penicillin G (2.4MU in 10ml) 0		0.61	0.51		
Amoxicillin (125mg) 0		0.34	0.32		
Amoxicillin (250mg) 0		0.33	0.40		
Dexamethasone (4mg/ml) 0		0.50	0.32		
Zinc (10mg in 5ml syrup) NA	\	0.41	N/A		
Zinc (20mg) 0		0.32	0.26		
Zinc-ORS co-pack (10mg tablet/1L) 0		0.38	0.22		
ORS sachets of 200ml NA	\	NA	NA		
ORS sachets of 500ml NA		NA	0.08		
ORS sachets of 1L 0		0.09	0.09		
Safe Delivery Kit 0		2.32	1.07		

## ANNEX J - HEALTHCARE PROVIDERS' PERSPECTIVES ON ACCESS TO SRHC

Figure 20. Client group experiencing most barriers when accessing SRH services

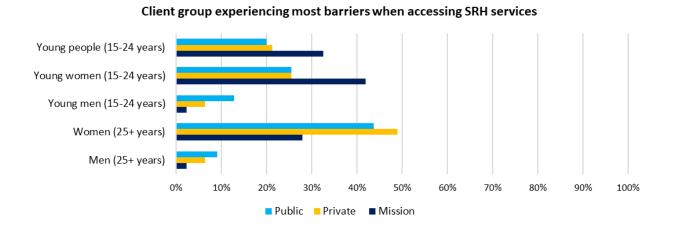
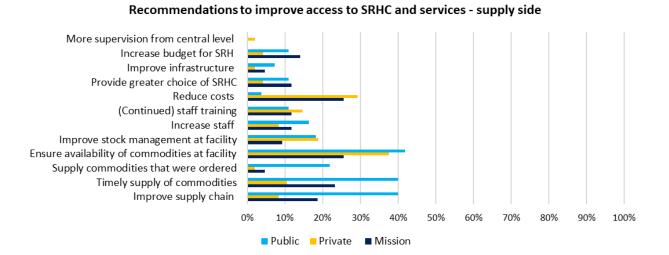


Figure 21. Recommendations to improve access to SRHC and services on the supply side



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