Sexual & Reproductive Health Commodities: Measuring Prices, Availability & Affordability

Three-country comparison – Kenya, Uganda & Zambia

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Three-country Comparison – Kenya, Uganda & Zambia

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1. Introduction

Good sexual and reproductive health (SRH) is a state of complete physical, mental and social well-being in all matters relating to reproduction for both men and women, including adolescents. Maintaining good SRH means people need access to accurate information and safe, effective, affordable and acceptable contraception methods of their choice. They must be informed and empowered to protect themselves from sexually transmitted infections and, when necessary, receive timely and affordable treatment. And when they decide to have children, women must have access to services that ensure they have a fit pregnancy, safe delivery and healthy baby. Every individual has the right to make their own choices about their SRH and family planning.

National policies on medicine pricing and procurement strategies are needed to ensure medicines are affordable and available. While policies are also greatly needed to improve health infrastructure, health education and financing are further required to ensure the rational use of medicines. Even in the face of weak infrastructure and gross inequality that underpins poverty prevalence, improvements in access can be achieved. However, without reliable information on medicine prices and availability, governments are working in an evidence vacuum. This restricts their ability to construct meaningful policy and properly evaluate the impact of any policy interventions. Reliable information is also a useful means of comparison between countries with similar health budgets for knowledge transfer and learning. Thus, in order to develop evidence-based policies, robust data is required. The Health Action International (HAI)–World Health Organization (WHO) methodology to assess the price, availability, and affordability components of medicines provides valuable data. To date, the methodology has not specifically targeted commodities for SRH. HAI has now adapted the methodology to focus on a specific set of sexual and reproductive health commodities (SRHC)[1,2].

The objective of the survey is to generate reliable information on the price, availability and affordability of selected important commodities in the SRH supply chain, with the ultimate goal of improving access to affordable medicines for all. The methodology uses a cross-sectional design with quantitative methods and a semi-structured questionnaire adapted from the standardised HAI–WHO methodology, *Measuring Medicine Prices, Availability, Affordability and Price Components* (2nd Edition). It allows data on the availability and out-of-pocket patient prices of SRHC in the public, private and mission/other sectors to be collected. It also assesses health provider perspectives on access to SRHC beyond

[1] Please refer to the *Sexual and Reproductive Health Commodities: Measuring Prices, Availability and Affordability* methodology and data entry manual (1st Editions) for a full description of the methodology used for data collection.
[2] For a full list of the commodities surveyed, see Appendix A.

the medicines supply chain. The method facilitates rapid and reliable data collection and enables price and availability indicators to be compared within and between individual countries.

The following report presents the results of the surveys carried out by HAI and in-country partners (Medicines Transparency Alliance [MeTA] Kenya, MeTA Uganda, and MeTA Zambia) during August and September 2017 in Kenya, Uganda and Zambia.

This report answers the following questions:

- What price do people pay for SRH medicines?
- Do the prices and availability of the same medicines vary across the public, private and mission sectors?
- How affordable are medicines for ordinary people?
- What do health providers see as the main barriers to accessing medicines?
- What are the similarities and differences between the three countries?

The following report should be used to highlight potential areas for intervention to improve access to SRHC, both at the national and regional levels, and monitor changes to access over time in the countries of study.

2. Data Collection

This report presents data from the initial roll out of the HAI research methodology, *SRHC: Measuring Prices, Availability & Affordability* in Kenya, Uganda and Zambia. The methodology used for the data collection follows HAI's SRHC data collection manual. Please refer to this manual for all details on the methodology followed for the data collection. The methodology consists of a questionnaire and a qualitative survey component. Data collectors in Uganda were trained in July 2016 and refresher training was provided just prior to data collection in July 2017. Data collectors in Kenya and Zambia were trained in August 2017.

Data collectors visited 'health post' facilities and above, known as 'health centre III' and above in Uganda, in the public, private and mission sectors in urban and rural areas. For all three countries, six provincial districts were selected. The selection of provinces to survey was random in order to have a representative sample of the country. Across the public, private and mission sectors, a total of 120, 124 and 132 facilities were surveyed in Kenya, Uganda and Zambia, respectively. An overview of the distribution of these facilities is provided in Table 1.

	Urban	Rural	Total (N)
Kenya			
Public	22	22	**44**
Private	22	20	**42**
Mission	19	15	**34**
Total	**63**	**57**	**120**
Uganda			
Public	20	22	**42**
Private	22	20	**42**
Mission	20	20	**40**
Total	**62**	**62**	**124**
Zambia			
Public	30	42	**72**
Private	32	5	**37**
Mission	6	17	**23**
Total	**68**	**64**	**132**

Table 1: Distribution of facilities surveyed by country.

3. Results

3.1 Mean Availability of SRHC

This research showed that mean availability of SHRC was below 50% in all sectors in all countries. The exception to this was the public sector in Kenya, where mean availability of SHRC was 53% in urban areas and 50% rural areas. Moreover, in all countries, availability of SHRC was not dependent on whether the facility was located in an urban or rural area. In Zambia, the private sector had considerably less SHRC available than the public sector. Comparing the countries to each other showed that mean availability of SHRC was decidedly higher in Kenya than in Zambia. Table 2 provides an overview of the mean availability of SHRC in the three countries and in the different sectors.

	SRHC Mean Availability (%)		
	Overall	Urban	Rural
Kenya			
Public	51	53	50
Private	44	45	44
Mission	42	44	39
Total	**46**	**47**	**44**
Uganda			
Public	41	47	36
Private	37	40	34
Mission	39	41	36
Total	**39**	**43**	**36**
Zambia			
Public	41	45	37
Private	25	25	27
Mission	36	39	35
Total	**34**	**37**	**34**

Table 2: Mean Availability of SRHC by country, sector and location.

3.2 Availability of Selected SRHC

Table 3, below, provides an overview of the availability of selected SRHC across the public, private and mission sectors[3].

Contraceptives

Contraceptives were available in the countries to a certain extent. In Kenya, ethinylestradiol + levonorgestrel tablets (30 mcg + 150 mcg), commonly known as the birth control pill, were available in 57% of public sector facilities and 67% of private sector

[3] Please refer to the *Sexual and Reproductive Health Commodities: Measuring Prices, Availability & Affordability: data collection report (2017)* for each country for detailed price, availability and affordability data of each medicine.

facilities. In Uganda, public sector availability was similar at 60%, while availability in the private sector was lower (45%) than in Kenya. Availability of the pill was highest in Zambia (81% in public facilities; 89% in private facilities). Levonorgestrel tablets (30 mcg), used as emergency contraceptive after birth control failure or unprotected intercourse, were available at less than 40% of all health facilities in the countries, with the exception of the public sector in Kenya, where it was available in 64% of the facilities. In Kenya, medroxyprogesterone acetate, an injectable anti-conceptive, was regularly available in the public sector (95%), but less available in the private (76%) and mission (24%) sectors. In Uganda and Zambia, availability patterns were similar: The injectable was available in 86% of public sector facilities, but less available in private and mission sector facilities. Availability of male condoms in the public sectors ranged from 85% to 91% while availability in the private sector was slightly lower (50% – 84%). Female condoms were not commonly available: 50%, 21%, 42% of public sector facilities in Kenya, Uganda and Zambia, respectively, stocked female condoms.

Pregnancy and Childbirth

Supplements, such as calcium gluconate, ferrous salt, folic acid, zinc, and oral rehydration salts were not commonly available in the countries. Only in Zambia were ferrous salt tablets (86%), folic acid tablets (82%), and oral rehydration salts (80%) commonly available. Oxytocin, used to induce labour and for the prevention and treatment of post-partum haemorrhage, was one of the most commonly available SRHC in the public sector in all three countries. Availability in public facilities in Kenya was 82% and 90% and 92% in Uganda and Zambia, respectively. Oxytocin was available in 71% of the private sector facilities in Kenya and only in 52% of Ugandan facilities and 8% of Zambian facilities. In the public sector, availability of dexamethasone, used in the management of pre-term labour to improve foetal lung maturity, was low in Zambia (26%) and Uganda (36%), while in Kenya, it was available in twice as many facilities. In the private sector, dexamethasone was available in 50% of Kenyan and 55% of Ugandan facilities, and only available in 19% of Zambian facilities. Gentamicin, used to treat pneumonia and neonatal and maternal sepsis, ranged from 51% (private sector Zambia) to 81% (private sector Uganda).

Sexually Transmitted Infections

Benzathine benzylpenicillin, used in the treatment of syphilis, was commonly available in all three countries, with availability in the private and public sectors ranging from 68% to 90%. The private sector in Kenya was the exception, as benzathine benzylpenicillin was available at 45% of the facilities. The availability of metronizadole, used for treating vaginal infections, was similar in all three countries (80% in Kenya, 85% in Uganda, and 83% in Zambia).

Medical Devices

Availability of medical devices was also inconsistent across the countries. Vasectomy and tubal ligation kits were mostly unavailable in the three countries. They were available in only 8% and 13% of Kenyan health facilities, in 10% and 11% of Ugandan facilities, and 5% and 6% of Zambian facilities.

In the public sector, antiseptic was available in 23% of Kenyan facilities, 57% of Ugandan facilities, and only 13% of Zambian facilities. Availability in the private sector was similar: 33% in Kenya, 38% in Uganda, and 3% in Zambia.

The availability of speculums in the public and private sectors ranged from 64% (public sector Zambia) to 88% (private sector Kenya). The exception was the private sector in Zambia, where speculums were only available in 8% of the facilities.

In Kenya, ultrasound scans in both the public and private sectors were less available in rural facilities. For instance, in the public sector, an ultrasound scan was available in 59% of urban facilities and 36% of rural facilities. Similar availability distributions were found in Uganda, where, for example, an ultrasound scan in the private sector was available in 82% of urban facilities and only 30% of rural facilities. In Zambia, ultrasound scans were much less available, even in urban facilities: In the public sector, 37% of urban facilities had an ultrasound scan, while in the private sector, only 6% of urban facilities had one.

Foetal scopes were much more commonly available in Kenya and Uganda: A scope was available in 84% of facilities in Kenya and 89% of facilities in Uganda. In Zambia, a foetal scope was available in 86% of public sector facilities, but only in 11% of private sector facilities.

Mama kits were available at 32% of health facilities in Kenya, 42% of facilities in Uganda, and only 18% of facilities in Zambia.

Commodities	Percentage Mean Availability (%)											
	Kenya				Uganda				Zambia			
	Total	Public	Private	Mission	Total	Public	Private	Mission	Total	Public	Private	Mission
Benzathine benzylpenicillin	**63**	68	45	76	**71**	71	79	63	**82**	90	81	57
Metronizadole	**80**	82	79	79	**85**	71	93	90	**83**	86	86	70
Ethinylestradiol + levonorgestrel	**50**	57	67	21	**47**	60	45	35	**80**	81	89	65
Levonorgestrel 30 mcg tablet	**43**	64	40	21	**22**	33	14	18	**30**	38	22	22
Male condoms	**68**	91	76	26	**58**	90	50	33	**80**	85	84	61
Female condoms	**26**	50	12	12	**19**	21	12	23	**35**	42	27	26
Calcium gluconate	**36**	41	29	38	**3**	0	2	8	**14**	13	5	35
Ferrous salt	**49**	52	43	53	**28**	7	38	40	**86**	94	70	87
Folic acid	**61**	59	55	71	**70**	81	64	65	**82**	88	68	87
Zinc 20 mg tablet	**53**	50	57	53	**37**	2	64	45	**48**	47	38	65
Oral rehydration salts sachets of 1 L	**2**	12	0	5	**42**	2	67	58	**80**	83	81	65
Oxytocin	**78**	82	71	82	**69**	90	52	63	**68**	92	8	91
Dexamethasone	**58**	64	50	62	**44**	36	55	43	**23**	26	19	22
Gentamicin	**80**	80	79	82	**78**	74	81	80	**62**	65	51	70
Vasectomy Kit	**8**	7	12	3	**10**	10	10	10	**5**	6	3	4
Tubal ligation kit	**13**	11	21	6	**11**	12	10	13	**6**	7	3	9
Antiseptic	**29**	23	33	32	**48**	57	38	48	**9**	13	3	9
Speculum	**87**	82	88	91	**78**	74	79	83	**50**	64	8	74
Ultrasound scan	**48**	48	36	62	**50**	33	57	60	**15**	18	5	22
Foetal scope	**84**	80	86	88	**89**	88	88	90	**66**	86	11	91
Mama kit	**32**	45	31	15	**42**	57	19	50	**18**	26	5	13

Table 3: Availability of selected SRHC by sector.

3.3 Stock-out Days

Data collectors only recorded stock-out information in this research when stock information could be seen via a stock card, or stock-taking database. As a result, in cases where stock information was not recorded, or anecdotal evidence was presented, the stock-out days could not be recorded.

On average, stock-outs for SRHC did not occur in many facilities in all three countries. However, if they did occur, they lasted for multiple days, or longer periods. Uganda had the highest reported number of stock-outs in public sector facilities (12%, see Table 4). If stock-outs occurred in Uganda, the average number of days per month a stock-out lasted was similar across sectors: 19 days in the public sector, 17 days in the private sector, and 20 days in the mission sector. However, on average, stock-outs in the private and mission sectors occurred less often (4% and 6%, respectively). The public sectors in Kenya and Zambia experienced fewer stock-outs (2% and 6%, respectively). In addition, the stock-outs lasted, on average, fewer days per month (six days in Kenya and eight days in Zambia). In Kenya, only 0.6% of the private sector health facilities reported stock-outs, which lasted on average two days per month. Zambia's private sector health facility stock-outs were slightly higher (3%), but similarly lasted an average of three days per month.

	Stock-outs	
	Percentage of facilities reporting stock-outs	Average number of stock-out days/ month
Kenya		
Public	2	6
Private	0.6	2
Mission	5	10
Uganda		
Public	12	19
Private	4	17
Mission	6	20
Zambia		
Public	6	8
Private	3	3
Mission	6	7

Table 4: Percentage of facilities reporting stock-outs in the past six months and the average number of stock-outs per month.

If a stock-out occurred for an SRHC in Uganda's public sector, 10 of the 37 commodities were unavailable for the entire month, and six more commodities experienced stock-outs of more than 20 days a month on average. In the private and mission sectors, 16 and 19 SRHC, respectively, were unavailable for the entire month, while two more in the private sector and four more in the mission sector were, on average, unavailable for more than

20 days a month.

In Kenya, extended stock-outs did not occur as often as in Uganda: In the public sector, two SRHC were unavailable the entire month, while two more were, on average, unavailable for more than 20 days a month. The private sector had one commodity unavailable the entire month, and one more commodity unavailable for more than 20 days a month. The mission sector had more problems with stock-outs, as nine commodities were stocked-out the entire month, and an additional two were stocked-out for more than 20 days a month.

In Zambia, stock-outs in the public and private sectors were similar to Kenya: In the private sector, one commodity was unavailable the entire month and three more were, on average, unavailable for more than 20 days a month, while in the private sector, one SRHC was unavailable the entire month. Four commodities were unavailable in the mission sector the entire month, and one additional commodity was unavailable for 20 days a month on average. Table 5 provides an overview of the extended stock-outs in percentages.

	Stock-outs	
	Commodities stocked out for 30 days (%)	Commodities stocked out for more than 20 days (%)
Kenya		
Public	5.4	10.8
Private	2.7	2.7
Mission	24.3	29.7
Uganda		
Public	27.0	43.2
Private	43.2	48.6
Mission	51.4	62.2
Zambia		
Public	2.7	10.8
Private	2.7	2.7
Mission	10.8	13.5

Table 5: SRHC stock-outs in percentages.

3.4 SRHC Prices & Affordability

Prices in this research are for individual units of a commodity, in which a unit is the single most effective amount of a commodity that can be used. Examples are one tablet, a strip of 28 contraceptive tablets, 1 ml or one vial. The prices of commodities are in local currencies (i.e., Kenyan shillings [KES], Ugandan shillings [UGX], and Zambian Kwacha [ZMW]. Affordability of SRHC is based on the salary of the lowest-paid government

worker in the country of study in 2017, the year of data collection (Kenya: 411 KES; Uganda: 6255 UGX; Zambia 96.7 ZMW).

In all Kenyan and Ugandan sectors, the price of SRHC did not exceed two days of wages. In Zambia it did not exceed one day of wages. An overview of the affordability of the SRHC for all three countries is provided in Figures 1, 2 and 3. In Uganda and Zambia, all SRHC are free in the public sector, resulting in optimal affordability (0 days of wages). In Kenya, not all SRHC are free; the most expensive commodity in the public sector (intrauterine contraceptive devices [IUCD]) costs the lowest-paid government worker 0.15 days of wages (see Appendix B).

In Kenya, the mean prices for each SRHC were higher in the private and mission sectors than the public sector. Naturally, the same was found in Uganda and Zambia, where SRHC were free in the public sector. In the private and mission sectors in Kenya and Uganda, the mean prices for IUCDs, etonogestrel implants, and levonorgestrel implants were relatively more expensive than the other SRHC. It is important to note, however, that both the IUCD and implants can work effectively for multiple years. In addition, affordability of these commodities in both countries was still acceptable. In Kenya, affordability of the IUCD is 1.61 days of wages in the private sector and 0.73 days of wages in the mission sector, while the etonogestrel implant in the private and mission sectors costs 1.41 and 1.31 days of wages, respectively, and the levonorgestrel implant costs 1.62 and 1.15 days of wages, respectively. Similar affordability numbers were found for these commodities in Uganda. In the private sector, a lowest-paid government worker paid 2.01 days of wages for an IUCD, 1.65 for an etonogestrel implant, and 0.97 for a levonorgestrel implant. In the mission sector, it cost 0.96 days of wages, 1.05 days of wages, and 0.88 days of wages, respectively. In Zambia, the IUCD and implants were free for patients in all sectors.

In Kenya’s private sector, three commodities cost more than one day of wages for the lowest-paid government worker; the rest cost less than one day of wages. These SRHC are the IUCD and the two implants mentioned above. In Uganda, five SRHC cost more than a day of wages: IUCD (2.01 days), etonogestrel implant (1.65 days), calcium gluconate (1.20 days), levonorgestrel 70 mcg (1.17 days), and magnesium sulphate 500 mg in 10 ml (1.08 days). Aside from misoprostol, which costs 0.55 days of wages, Zambia’s commodities in the private sector did not surpass the 0.5 days of wages needed to pay for an SRHC in any sector.

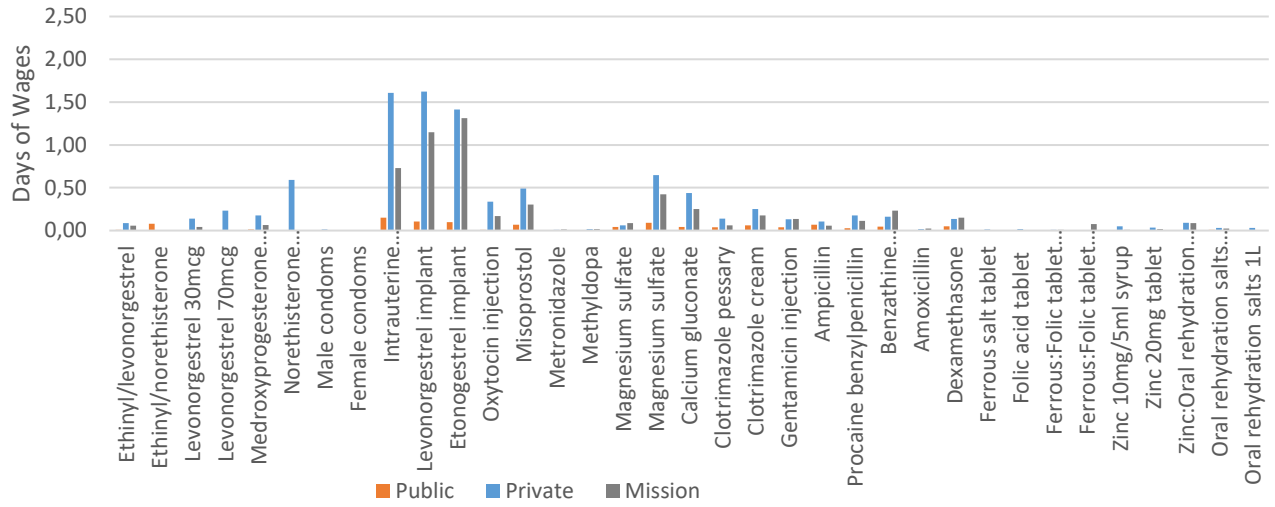

Figure 1: Affordability of SRHC in Kenya, by sector.

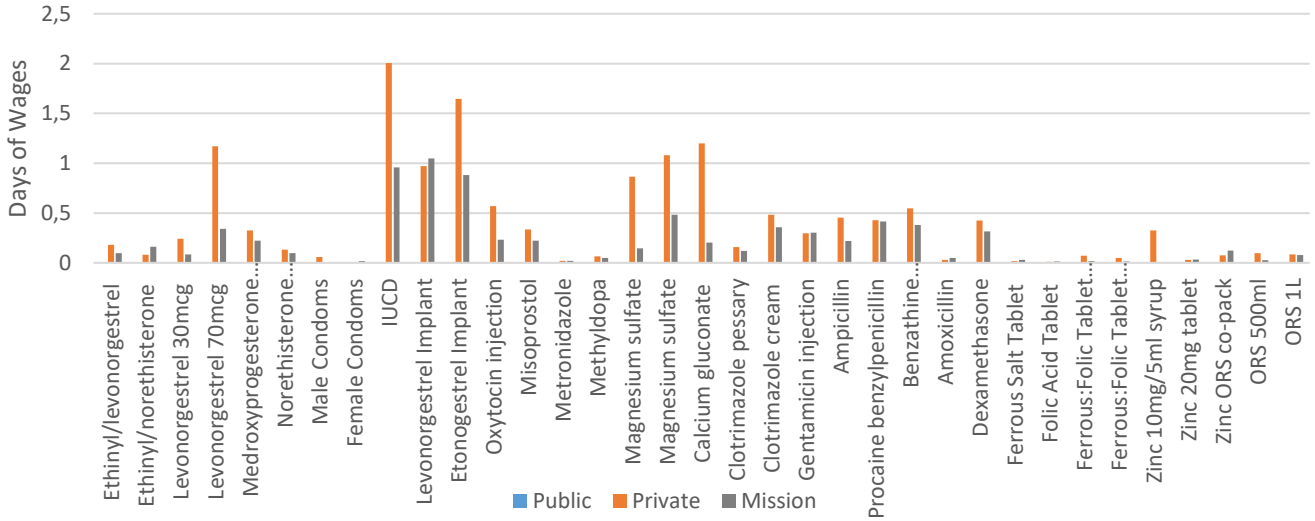

Figure 2: Affordability of SRHC in Uganda, by sector.

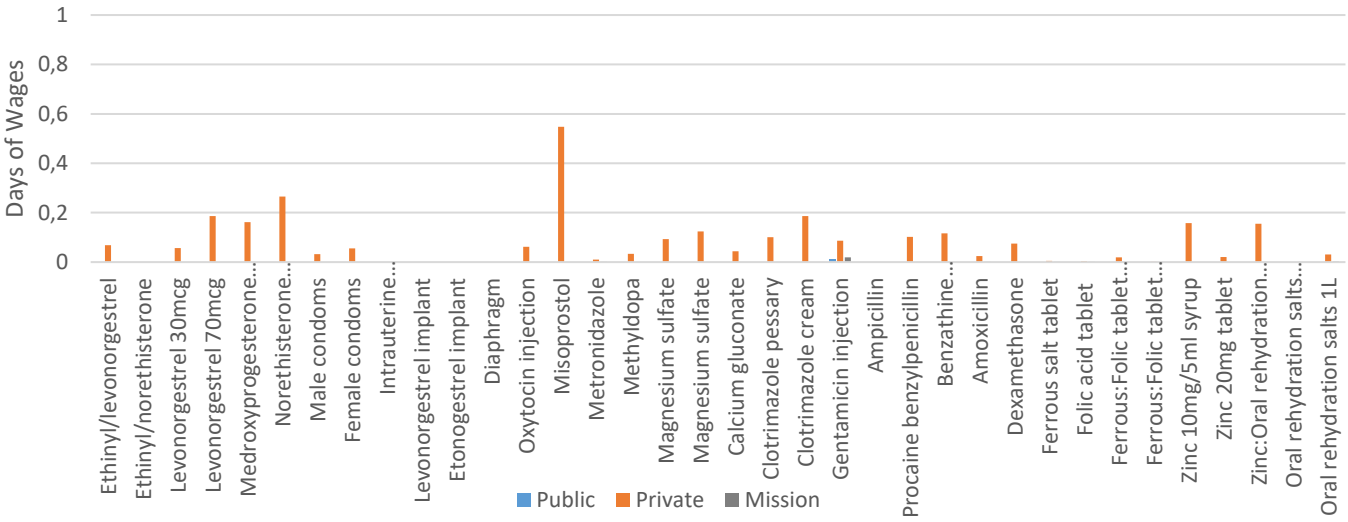

Figure 3: Affordability of SRHC in Zambia by sector.

3.5 Key Challenges to SRHC Access & Recommendations for Improvement

The second portion of the research investigated access to SRHC, in general, and at particular facilities from the perspective of the interviewed health provider. The respondents remained the same as those providing assistance in the first part of the survey. The response rate for the qualitative survey was 89% in Kenya, 97.5% in Uganda, and 89% in Zambia.

Respondents were asked what they thought were the main challenges to SRHC access, and it became clear that these challenges were similar in the three countries. For instance, in both Kenya and Zambia, the training of staff was the primary challenge mentioned by respondents (30% and 47%, respectively), while in Uganda it was the second-most mentioned challenge (46%). In Uganda, the primary challenge mentioned by respondents was costs to patients (49%). Other challenges often mentioned in all countries were: Frequent stock-outs, logistical issues for supply, and requested commodities not supplied. Figure 4, below, provides an overview of challenges by country.

Opinions on how to improve access to SRHC were also consistent among respondents in all countries. Improving the supply chain was one of the most common recommendations (Kenya: 46% of respondents; Uganda: 36% of respondents; Zambia: 41% of respondents). Ugandan respondents prioritised continued training for staff (38%) and reduction of costs (38%) higher than improving the supply chain. When respondents prioritised the supply chain, their recommendation covered accurate ordering of SRHC,

efficient and accurate delivery, and a move to a pull system rather than a push system of SRHC stock ordering. Table 6 gives an overview of the most commonly prioritised recommendations.

Respondents were also asked if they thought clients were reluctant to access SRHC. In Kenya, 56% thought clients were reluctant, while, in Zambia and Kenya, 67% and 81% of respondents, respectively, believed clients were reluctant to access SRHC. Reasons for client reluctance in accessing SRHC were, again, similar across the countries. In Kenya, the main reasons given by the respondents for client reluctance in accessing SRHC were beliefs in myths, superstitions and religion (23%), and patients' lack of knowledge (15%). In Uganda, these reasons were also given for clients' reluctance (18% and 30%, respectively), on top of the stigma from family members and the community (34%) and the fear of side effects (23%). In Zambia, the main reasons were also fear of side effects (20%), patients' lack of knowledge (20%), and beliefs in myths, superstitions and religion (18%). To overcome clients' reluctance to access SRH services, in all three countries, the main advice was to expand client education for everyone (51% of respondents in Kenya; 58% of respondents in Uganda; 48% of respondents in Zambia).

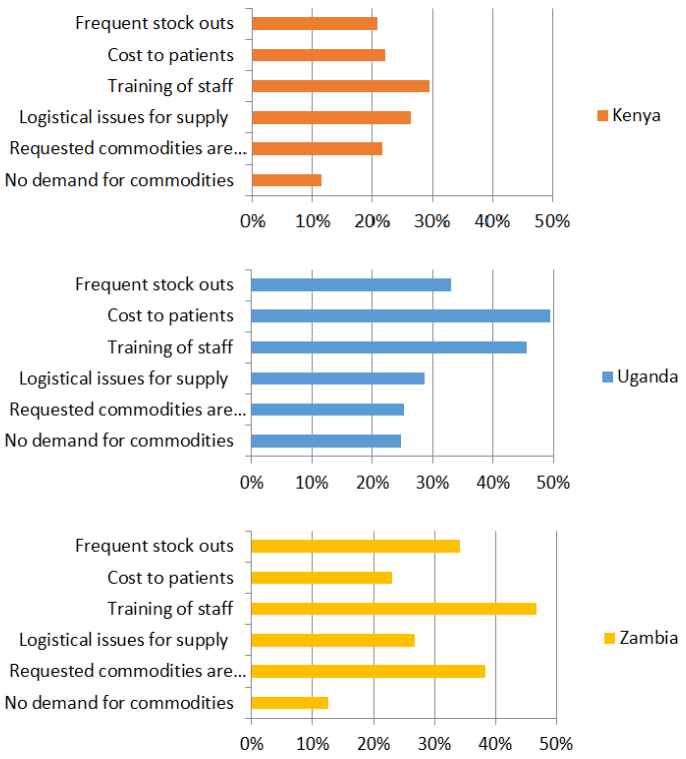

Figure 4: Key challenges to SRHC access by country.

Recommendations	Responses (%)		
	Kenya	Uganda	Zambia
Improve supply chain	46	36	41
Increase number of staff	8	5	16
Provide greater choice of SRHC	10	14	13
Educate clients on SRH	23	32	19
(continued) training for health workers	28	38	9
Reduce costs	17	38	8
Follow up services	N/A	N/A	26

Table 6: Main recommendations to improve access to SRHC by country.

The last question respondents were asked to answer was what could be done to ensure access to SRH services at their health facilities. In Kenya and Uganda, the three main recommendations were to: Improve the supply chain (45% and 45%, respectively), educate communities on SRH (45% and 55%, respectively), and sensitisation and training of staff regarding SRH (17% and 35%, respectively). While improving the supply chain (38%), educating communities on SRH (36%), and sensitisation and training of staff (20%) were also main recommendations in Zambia, another recommendation made by 25% of the respondents was to ensure that all SRHC were available.

4. Discussion

These SRHC surveys were the first to be rolled out by HAI as part of its work on the Health Systems Advocacy (HSA) Partnership. The studies will be repeated on an annual basis in 2018–2020 in each country of study to monitor changes to access over time. SRHC research, with a planned yearly repetition in the three countries in 2018–2020. This report highlights the potential areas for intervention to improve access to SRHC, both at the national and regional levels.

This first round of surveys has shown that availability of SRHC is a problem in all sectors in all countries, given that the highest mean availability of SRHC was 51% in Kenya's public sector. All other sectors in Kenya, Uganda and Zambia had, on average, less than 50% of the commodities available. This is problematic because in Kenya, Uganda and Zambia, 20%[4], 30%[5], and 20%[6] of women, respectively, have unmet family planning

[4] United Nations, Department of Economic and Social Affairs, Population Division. *Trends in Contraceptive Use Worldwide 2015.* (Geneva: United Nations, 2015), p. 1-63.
[5] United Nations, Department of Economic and Social Affairs, Population Division. p. 1-63.
[6] United Nations, Department of Economic and Social Affairs, Population Division. p. 1-63.

needs. Moreover, antenatal and post-natal commodities, critical for ensuring a healthy and safe pregnancy, childbirth and life for the mother and the baby, are not regularly available in all three countries. This can lead to serious morbidity and mortality. Also, lack of availability of these commodities likely contributes to high maternal mortality rates in these countries, which range from 336 to 396 maternal deaths per 100,000 live births[7,8,9].

Stock-outs of SRHC were, on average, not very common in all three countries: In Kenya, 2% of facilities reported a stock-out in the public sector, compared with 6% of public sector facilities in Zambia. However, stock-outs in Kenya were higher; 12% of public sector facilities reported a stock-out. In addition, if an SRHC was stocked-out, the number of days it was unavailable was high, especially in Uganda, where 19 of 37 SRHC that experienced a stock-out were unavailable for more than 20 days a month. It is important to note, however, that even though stock-outs were not a common occurrence (since availability of SRHC is already low in the countries), stock-outs can still have a significant impact on access to SRHC. Moreover, in all countries, stock cards were not available in a number of facilities, which may have led to an underestimation of the stock-out situation.

Across sectors and countries, the price of SRHC did not exceed two days of wages. Affordability of SRHC in the public sector was optimal in Uganda and Zambia as all commodities were free for the patients. In Kenya's public sector, the most expensive SRHC cost 0.15 days of wages. However, in all countries costs to patients were said to be a key challenge to accessing SRHC, especially in the private and mission sectors. This is because many people in the countries may earn much less than the lowest-paid government worker and an SRHC that may seem affordable, may be unaffordable to a large proportion of the population. For instance, in Uganda, the lowest-paid government worker earns the equivalent of USD 1.73 a day[10], while in 2016 27% of the population lived below the poverty line of USD 1.25 a day[11]. This means that more than 27% of the Ugandan population is unable to meet their caloric requirements and non-food needs, and can therefore not afford SRHC. In Kenya, the lowest-paid government worker earns

[7] United Nations Children's Fund (UNICEF). The State of the World's Children 2016: A fair chance for every child. (New York: UNICEF, 2016), p. 1-172.
[8] Uganda Bureau of Statistics. *Uganda Demographic and Health Survey 2016: key indicators report*. (Kampala: Uganda Bureau of Statistics, 2017), p 1-60.
[9]Central Statistical Office, Informational Research and Dissemination Branch. *Zambia in Figures 2016.* (Lusaka: Central Statistical Office, 2016), p. 1-30.
[10] Based on currency conversion of UGX to USD for the value of UGX in USD on 13 August, 2017, via https://www.oanda.com/currency/converter/.
[11] Uganda Bureau of Statistics. *Uganda National Household Survey 2016/17*. Uganda: Uganda Bureau of Statistics, 2017. Accessed November 23, 2017: http://www.ubos.org/onlinefiles/uploads/ubos/pdf%20documents/UNHS_VI_2017_Version_I_%2027th_September_2017.pdf

the equivalent of USD 3.93[12], while the last reported poverty rate of people living below the international poverty line of USD 1.90 was 33.6%[13]. Zambia's lowest-paid government worker earns the equivalent of USD 10.37[14], while in 2015, 57.5% of the population was living below the international poverty line of USD 1.90[15]. It is therefore not surprising that respondents in the public and private sectors recommended that the costs to patients should be reduced in order to improve access to SRHC.

Other major challenges experienced by the countries were: Training of staff, frequent stock-outs, logistical issues for supply, and requested commodities were not supplied. The reluctance of clients to access SRHC, a problem in all countries, was due to beliefs in myths, superstitions and religion, patients' lack of knowledge, stigma from family and the community, and fear of side effects. To improve access to SRHC, the following recommendations were made:

- Improve the supply chain
- Continue training staff
- Educate clients and the community on SRH
- Reduce costs
- Provide greater choice of SRHC
- Increase the number of staff
- Offer/ensure follow-up services

Conclusion

In Kenya, Uganda and Zambia, the lack of availability of commodities, the stock-outs, the unaffordability of SRHC and challenges at the community and facility levels all contribute to the difficulties people experience in accessing sexual and reproductive healthcare services, as well as to the 20-30% of women that still have unmet family planning needs. Improvements in accessing SRHC in the countries are therefore needed to achieve the Sustainable Development Goal of universal access to sexual and reproductive healthcare services.

These surveys showed that community education may have a considerable impact on the health-seeking behaviour of clients. Improving knowledge in the community about SRH will tackle many of the reasons given as to why many clients are reluctant to access SRH

[12] Based on currency conversion of KES to USD for the value of KES in USD on 13 August, 2017, via https://www.oanda.com/currency/converter/.
[13] The World Bank. *Poverty & Equality Data Portal: Kenya*. Accessed 23 November, 2017: http://povertydata.worldbank.org/poverty/country/KEN
[14] Based on currency conversion of ZMW to USD for the value of ZMW in USD on 13 September, 2017, via https://www.oanda.com/currency/converter/.
[15]The World Bank. *Poverty & Equality Data Portal: Zambia*. Accessed 23 November, 2017: http://povertydata.worldbank.org/poverty/country/ZMB

services. For instance, comprehensive education on SRH will reduce stigmatisation in the community and improve the general knowledge about SRH, which will, in turn, reduce the (ungrounded) fear of side effects and target the myths, superstitions and religious factors negatively influencing SRH services use.

In addition, client and community education can lead to a reduction in stigmatisation of SRH service users by family and the community. Related to community education is staff sensitisation, which, along with continued education, is needed to ensure clients feel comfortable in accessing SRH services at facilities. To achieve this, it is important that staff is sufficiently knowledgeable about SRH and available services so they can offer quality care and be professional in their approach, so no stigmatisation occurs within the facility.

Improving client and staff education is not enough. If the commodities are not available, they cannot be accessed; therefore, another important area of focus to improve access to SRH services is the pharmacy chain. A suboptimal pharmacy chain leads to problems with availability and stock-outs of the commodities. To improve the pharmacy chain, SRHC should be accurately ordered, the delivery should be efficient, accurate and timely, and a closer examination of whether a ‘pull system’, rather than a ‘push system’, would work better in the Zambian environment would be useful.

Finally, costs are also an important access-limiting factor in the private sector for which solutions should be developed.

Appendix A – SRHC Surveyed

Commodity
Ethinylestradiol + levonorgestrel (tablet, 30 mcg + 150 mcg)
Ethinylestradiol + norethisterone (tablet, 35 mcg + 1.0 mg)
Levonorgestrel (tablet, 30 mcg)
Levonorgestrel (tablet, 750 mcg)
Medroxyprogesterone acetate (150mg in 1 ml vial)
Norethisterone enanthate (200mg/ml in 1 ml vial)
Male condoms
Female condoms
Intrauterine contraceptive devices
Implants: Levonorgestrel
Implants: Etonogestrel
Diaphragm
Oxytocin injection (10IU, 1ml)
Misoprostol (200 mcg tablet)
Metronidazole (tablet, 200mg)
Methyldopa (tablet, 250mg)
Magnesium sulfate (500mg in 2ml)
Magnesium sulfate (500mg in 10ml)
Calcium gluconate (100mg in 10ml ampoule)
Clotrimazole (pessary 500mg)
Clotrimazole (cream 1% in 15g tube)
Gentamicin injection (40mg/ml in 2ml)
Ampicillin (500mg powder for injection)
Procaine benzylpenicillin, fort (powder for injection 4MU)
Benzathine benzylpenicillin G (2.4MU in 10ml)
Amoxicillin (125mg/250mg)
Dexamethasone (4mg/ml)
Ferrous salt tablet (200mg)
Folic acid tablet (tablet 5mg)
Ferrous salt and folic acid (tablet 60mg iron + 400mcg folic acid)
Ferrous salt and folic acid (tablet 150mg iron + 500mcg folic acid)
Zinc (10mg in 5ml syrup)
Zinc (20mg tablet)
Zinc oral rehydration salts co-pack (10mg tablet/1L)
Oral rehydration salts (sachets of 200ml)
Oral rehydration salts (sachets of 500ml)
Oral rehydration salts (sachets of 1L)
Vasectomy kits
Tubal ligation kits
Antiseptic (chlorhexidine/alcohol)
Manual vacuum aspiration kits
Speculum
Cervical dilators
Incubator
Monitor
Ultrasound scan
Ventilator
Fetal scope
Resuscitator
Bag and mask (size 0)
Suction device
Mama kit
Training mannequin for infant resuscitation

Appendix B – Affordability of SRHC by Sector

Commodities	Affordability (days of wages)								
	Kenya			Uganda			Zambia		
	Public	Private	Mission	Public	Private	Mission	Public	Private	Mission
Ethinylestradiol + levonorgestrel	0.01	0.09	0.06	0	0.18	0.10	0	0.07	0
Ethinylestradiol + norethisterone	0.08	0	N/A	0	0.08	0.16	0	N/A	N/A
Levonorgestrel 30 mcg tablet	0	0.14	0.04	0	0.24	0.08	0	0.06	0
Levonorgestrel 70 mcg tablet	0	0.23	0	0	1.17	0.34	0	0.19	0
Medroxyprogesterone acetate	0.02	0.18	0.06	0	0.33	0.22	0	0.16	0
Norethisterone enanthate	N/A	0.59	N/A	0	0.13	0.10	0	0.27	0
Male condoms	0	0.01	0	0	0.06	0	0	0.03	0
Female condoms	0	0	0	0	0	0.02	0	0.06	0
Intrauterine contraceptive devices	0.15	1.61	0.73	0	2.01	0.96	0	0	0
Levonorgestrel implant	0.10	1.62	1.15	0	0.97	1.05	0	0	0
Etonogestrel implant	0.10	1.41	1.31	0	1.65	0.88	0	0	0
Diaphragm	N/A	0	N/A	N/A	N/A	N/A	N/A	N/A	0
Oxytocin injection	0.01	0.34	0.17	0	0.57	0.23	0	0.06	0
Misoprostol	0.07	0.49	0.30	0	0.34	0.22	0	0.55	0
Metronidazole	0	0.01	0.01	0	0.02	0.02	0	0.01	0
Methyldopa	0	0.02	0.01	0	0.06	0.05	0	0.03	0
Magnesium sulfate 500mg/ 2ml	0.04	0.06	0.09	0	0.86	0.15	0	0.09	0
Magnesium sulfate 500mg/ 10ml	0.09	0.65	0.42	0	1.08	0.48	0	0.12	0
Calcium gluconate	0.04	0.44	0.25	N/A	1.20	0.20	0	0.04	0
Clotrimazole pessary	0.04	0.14	0.06	0	0.16	0.12	0	0.10	0
Clotrimazole cream	0.06	0.25	0.18	0	0.48	0.36	0	0.19	0
Gentamicin injection	0.04	0.13	0.13	0	0.30	0.30	0.01	0.09	0
Ampicillin	0.07	0.11	0.06	0	0.45	0.22	0	0	0
Procaine benzylpenicillin	0.03	0.18	0.11	0	0.43	0.42	0	0.10	0
Benzathine benzylpenicillin G	0.04	0.16	0.23	0	0.55	0.38	0	0.12	0
Amoxicillin	0	0.02	0.02	0	0.03	0.05	0	0.02	0
Dexamethasone	0.05	0.14	0.15	0	0.43	0.32	0	0.08	0
Ferrous salt tablet	0	0.01	0	0	0.02	0.03	0	0	0
Folic acid tablet	0	0.02	0	0	0.01	0.01	0	0	0
Ferrous:Folic tablet 60/400	0	0.01	0.01	0	0.07	0.02	0	0.02	0
Ferrous:Folic tablet 150/500	0	N/A	0.08	0	0.05	0.02	0	0	N/A
Zinc 10mg/5ml syrup	0	0.05	0.01	N/A	0.33	N/A	0	0.16	0
Zinc 20mg tablet	0	0.03	0.02	0	0.03	0.03	0	0.02	0
Zinc:ORS co-pack	0	0.09	0.09	0	0.07	0.12	0	0.16	0
Oral rehydration salts 200ml	0	0.02	N/A	N/A	N/A	0.00	0	N/A	N/A
Oral rehydration salts 500ml	0.01	0.03	0.02	0	0.10	0.03	N/A	N/A	N/A
Oral rehydration salts 1L	0	0.03	N/A	0	0.09	0.08	0	0.03	0