



REPORT

SEXUAL AND REPRODUCTIVE HEALTH COMMODITIES IN MARSABIT COUNTY, KENYA: AVAILABILITY, STOCKOUTS AND AFFORDABILITY

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1. BACKGROUND

Access to medicines and medical commodities forms a crucial building block of health systems. Without proper access to quality assured and safe medicines, people are not able to live in optimal health. Sexual and reproductive health (SRH) is a field of care which lies at the basis of healthy societies. The World Health Organization (WHO) Model List of Essential Medicines details medicines and commodities that are essential to the provision of quality SRH care (WHO, 2021).

When a health system is well equipped to provide SRH commodities and services, it means people are enabled to decide if and when they want to become pregnant, to have a healthy pregnancy and safe childbirth, and to protect themselves against STIs and HIV/AIDS. They will also receive timely and proper treatment in case they do contract HIV/AIDS or a sexually transmitted infection (STI).

Unfortunately, Kenya experiences challenges with the adequate provision of SRH services and commodities. The maternal mortality rate is estimated to be 362 per 100,000 live births, while the prevalence of modern contraceptive use continues to be low, with 56.9% of currently married women aged 15-49 years, and 59.2% of sexually active unmarried women aged 15-49 years, using a modern contraceptive.^{1,2} However, modern contraceptive use among married women aged 15-49 years is much lower in Isiolo (28.7%), Mandera (1.8%) and Marsabit (5.6%) Counties, with unmet need ranging from 17.3% to 37.6% in these counties.² Among sexually active unmarried adolescents aged 15-19 years, there is an unmet need for family planning of 34.5%.² This research was conducted to study the availability, affordability and stockouts of 49 SRH commodities which are used for family planning, maternal healthcare, treatment of STIs, treatment of HIV/AIDS, in addition to several test kits and menstrual products, in Isiolo, Mandera and Marsabit Counties in Kenya. This research is essential as it creates a clear overview of the availability and affordability of a comprehensive package of essential SRH commodities in Kenya, which will contribute to the development of evidence-based policies to improve the SRH of women and adolescents.

2. RESEARCH METHODOLOGY

This study was conducted by Faith to Action Network Kenya and Health Action International (HAI) as part of the Solutions for Supporting Healthy Adolescents and Rights Protection (SHARP) programme, funded by the European Union. The research was approved by the AMREF Ethics and Scientific Review Committee and National Commission for Science, Technology and Innovation (NACOSTI).

This study used an adapted version of the HAI/WHO Methodology (2008). Teams of data collectors visited 86 health facilities from the public, private and faith-based sectors to survey the availability, stockouts and patient prices of 49 medicines, test kits, and menstrual hygiene products. An overview of all surveyed commodities can be found in Annex 1.

Public Sector: Facilities that are run and funded by the national government. Medicines in this sector are often low cost or free of charge.

Private Sector: Licensed retail pharmacies, private healthcare centres and private hospitals. The private sector does not include unlicensed drug stores, drug sellers in the informal sector, or health facilities operated by private companies, such as mining companies.

Faith-based Sector: Facilities that are run by religious organisations, such as church missions.

1. Kenya National Bureau of Statistics. Kenya Demographic and Health Survey 2014. (2015). Nairobi: Kenya.

2. Kenya National Bureau of Statistics. Kenya Demographic and Health Survey 2022: Key Indicators Report. (2023). Nairobi: Kenya.

The study sample included health facilities from urban as well as rural areas, ranging from dispensaries/clinics to referral hospitals. Availability was only measured for commodities based on the health facility level where they should be available. For example, carbetocin is available from primary hospitals and up. In addition, stock cards or stock databases were reviewed to record information on stockouts of the surveyed products over a 12-month period prior to data collection. Finally, price information, in combination with the national rural poverty line of 3947 KES per month, or 131.6 KES per day, was used to calculate affordability of commodities. If a commodity cost more than a day's income, it was considered unaffordable. Table 1 provides an overview of the overall study sample. This report provides the results from Marsabit County, in which 27 health facilities were surveyed: 13 from the public sector, eight from the private sector, and six from the faith-based sector.

Table 1. Study sample.

	Public	Private	Faith-based	Total
Urban	8	19	3	30
Rural	41	5	10	56
Total	49	24	13	86

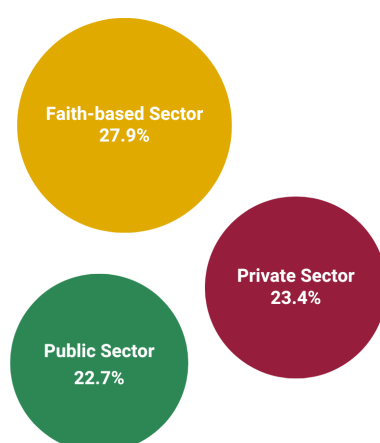
3. FINDINGS

Page 5 of the report presents the findings on the availability of all 49 surveyed commodities combined and compares the different sectors. Pages 6-15 provide the availability, stockouts and affordability for individual commodities, per commodity group.

SRH COMMODITY AVAILABILITY AT A GLANCE

In Marsabit County, the overall availability across the sectors was 22.9%. The public sector had, on average, the lowest availability at 22.7%, followed by the private sector at 23.4% (see Figure 1). The faith-based sector had an overall availability of 27.9%.

Figure 1. Overall availability of the 49 surveyed SRH commodities, comparing the public, private and faith-based sectors.



3. Kenya National Bureau of Statistics. The Kenya Poverty Report Based on the 2021 Kenya Continuous Household Survey.

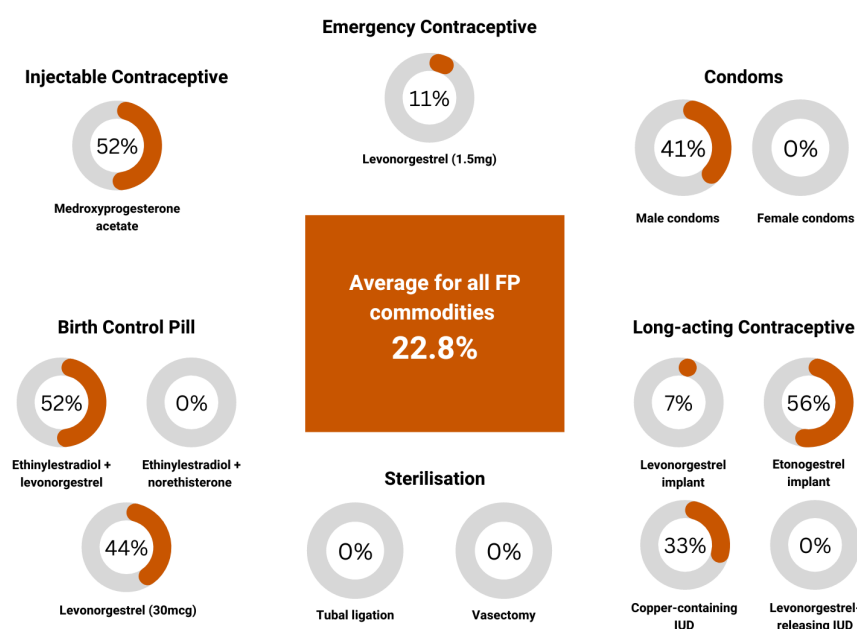
FAMILY PLANNING

Family planning (FP) commodities are products which allow individuals to plan their pregnancy. To have the choice and freedom to decide on pregnancy upholds several human rights and advances health outcomes (Cook, 1983; WHO, 2014). FP commodities have varying regimens and lengths of effectiveness: e.g., the birth control pill needs to be taken daily, injectables need one injection every three months, while implants and intra uterine devices (IUDs) are effective for a long time and can stay in situ for about five years. Condoms are the only contraceptives which protect against both pregnancy and STIs at the same time (WHO, 2020). Vasectomy and tubal ligation⁴ are services that allow people the decision to not have any (more) children.

Availability

The average availability of family planning commodities across the three sectors was 22.8% (see Figure 2). When taking all the surveyed health facilities together, none of the commodities had an 80% or higher availability. Highest availability was found for etonogestrel implants (56%). Five of the 13 FP commodities, specifically ethinylestradiol + norethisterone, female condoms, levonorgestrel-releasing IUDs, and tubal ligation and vasectomy services, were unavailable at all surveyed health facilities.

Figure 2. Availability of FP commodities.



In the public sector, only six of the 13 surveyed FP commodities were available at the health facilities, and only etonogestrel implants had an availability of 80% or higher (see Table 2). The second highest availability was found for ethinylestradiol + levonorgestrel (76.9%), followed by medroxyprogesterone acetate (69.2%), and levonorgestrel (30mcg) (53.8%). Male condoms and copper-containing IUDs were available at less than 50% of public facilities.

In the private sector, a bigger range of FP commodities was available. However, their availability was lower than what was found in the public sector: highest availability was found for medroxyprogesterone acetate, which was available at only 50% of facilities. availability of the remaining FP commodities ranged from 12.5% (levonorgestrel implants) to 37.5% (ethinylestradiol + levonorgestrel, levonorgestrel (both strengths) and male condoms). In the faith-based sector availability was very low, with four types of FP commodities found at one-third of health facilities, and three commodities found at only 16.7% of health facilities.

4. Although vasectomy and tubal ligation are in principle reversible, it is not the intention, and there's no guarantee that it will be successful.

Table 2. Availability of FP commodities, per sector.

	Public (%)	Private (%)	Faith-based (%)
Ethinylestradiol + levonorgestrel	76.9	37.5	16.7
Ethinylestradiol + norethisterone	0.0	0.0	0.0
Levonorgestrel (30 mcg)	53.8	37.5	33.3
Levonorgestrel (1.5 mg)	0.0	37.5	0.0
Medroxyprogesterone acetate	69.2	50.0	16.7
Implants: levonorgestrel	0.0	12.5	16.7
Implants: etonogestrel	84.6	25.0	33.3
Copper-containing IUD	38.5	25.0	33.3
Levonorgestrel-releasing IUD	0.0	0.0	0.0
Male condoms	46.2	37.5	33.3
Female condoms	0.0	0.0	0.0
Vasectomy services	0.0	0.0	-
Tubal ligation services	0.0	0.0	-

Stockouts

A stockout is defined as the number of days during a 12-month period that a commodity that is normally available and stocked, was not available at the facility. In the public sector ethinylestradiol + norethisterone was stocked out at 100% of health facilities, lasting on average 90 days. Male condoms and etonogestrel implants experienced a stockout at 54.5% of facilities, lasting 40 days (male condoms) and 61 days (etonogestrel implants) on average. In the private sector ethinylestradiol + levonorgestrel and male condoms experienced stockouts (33.3% and 25.0%, respectively), lasting on average 45 days and 12 days, respectively. In the faith-based sector 50% of health facilities experienced a stockout of ethinylestradiol + levonorgestrel and medroxyprogesterone acetate.

Table 3. Stockouts of FP commodities at health facilities, and average number of stockout days per

	Public		Private		Faith-based	
	Facilities with stockout (%)	Average # of stockout days	Facilities with stockout (%)	Average # of stockout days	Facilities with stockout (%)	Average # of stockout days
Ethinylestradiol + levonorgestrel	0.0	-	33.3	45	50.0	1
Ethinylestradiol + norethisterone	100.0	90	-	-	-	-
Levonorgestrel (30 mcg)	0.0	-	0.0	-	0.0	-
Levonorgestrel (1.5 mg)	-	-	0.0	-	-	-
Medroxyprogesterone acetate	20.0	19	0.0	-	50.0	35
Implants: levonorgestrel	-	-	0.0	-	0.0	-
Implants: etonogestrel	54.5	61	0.0	-	0.0	-
Copper-containing IUD	0.0	-	0.0	-	0.0	-
Male condoms	54.5	40	25.0	12	0.0	-

NB: Stock information for levonorgestrel-releasing IUDs and female condoms was unavailable in all three sectors and is therefore not shown.

Affordability

An overview of all average prices and treatment regimens is given in Annex 2. All FP commodities were free to the patients in health facilities in the public and faith-based sectors (see Table 4). In the private sector only etonogestrel implants were unaffordable costing 2.28 days of wages.

Table 4. Affordability of FP commodities.

	Public	Private	Faith-based
Ethinylestradiol + levonorgestrel	0 days	0.11 days	0 days
Levonorgestrel (30 mcg)	0 days	0.13 days	0 days
Medroxyprogesterone acetate	0 days	0.95 days	0 days
Implants: levonorgestrel	-	-	0 days
Implants: etonogestrel	0 days	2.28 days	0 days
Copper-containing IUD	0 days	0 days	0 days
Male condoms	0 days	0.25 days	0 days

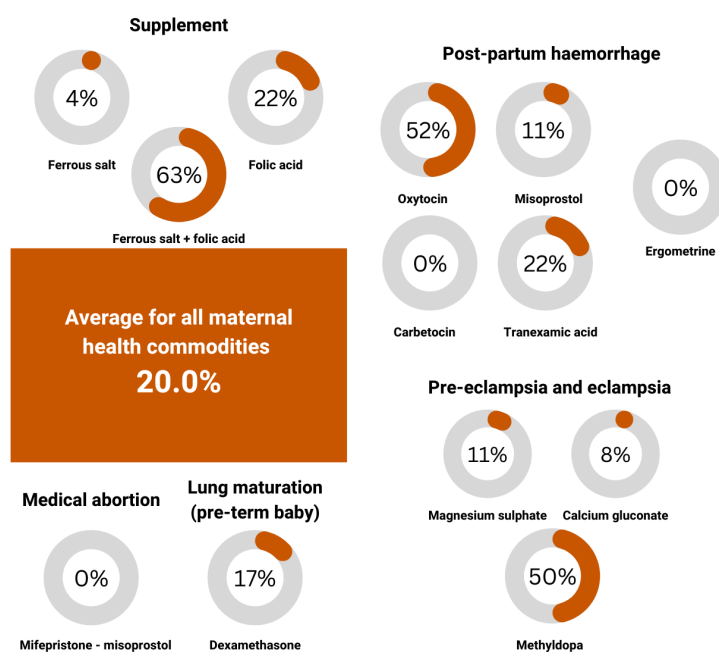
NB: Pricing information for ethinylestradiol + norethisterone, levonorgestrel (1.5mg), levonorgestrel-releasing IUDs and female condoms was unavailable in all three sectors and is therefore not shown.

MATERNAL HEALTH

Maternal health commodities represent a diverse group of products which are used to treat health conditions that affect women during pregnancy, childbearing, and postnatally. In many contexts, during this period women are at an increased risk of negative health outcomes that can be avoided with the right treatment and care (WHO, n.d.). Maternal health commodities include a diversity of medicines with different uses; examples are supplements which are used to prevent iron and folic acid deficiencies, which are associated with adverse pregnancy outcomes to both the mother and foetus (WHO, 2012); medicines such as oxytocin and misoprostol, used to prevent post-partum haemorrhage, the leading cause of maternal deaths in the Sub-Saharan Africa region (Say, 2014); and medicines to treat pregnancy-related hypertension, also called (pre)-eclampsia, including methyldopa and magnesium sulphate.

Availability

the average availability of maternal health commodities across all surveyed facilities was 20.0% (see Figure 3). When taking all the facilities together, none of the commodities had an 80% or higher availability. Ergometrine and mifepristone - misoprostol were unavailable at all surveyed health facilities.

Figure 3. Availability of maternal health commodities.

In the public sector, ferrous salt + folic acid and methyldopa had an availability of 80% or higher (see Table 5). Oxytocin was available at 61.5% of health facilities, while misoprostol, carbetocin, tranexamic acid and ergometrine, also used for post-partum haemorrhage, were unavailable at all facilities. Dexamethasone was also unavailable at all health facilities, while magnesium sulphate was available at only 15.4% of facilities. In the private sector highest availability was found for tranexamic acid (50%) and folic acid tablets (50%). Six of the commodities were unavailable at all facilities. Oxytocin was available at 37.5% of facilities, while the remaining commodities were available at one-third or less of the facilities. In the faith-based sector, dexamethasone was available at 100% of facilities, and ferrous salt + folic acid tablets at 83.3%. Oxytocin was available at 50.0% of facilities, with the remainder available at one-third of the facilities or less.

Table 5. Availability of maternal health commodities, per sector.

	Public (%)	Private (%)	Faith-based (%)
Oxytocin	61.5	37.5	50.0
Misoprostol	0.0	25.0	16.7
Carbetocin	0.0	0.0	-
Tranexamic acid	0.0	50.0	33.3
(methyl)ergometrine	0.0	0.0	-
Mifepristone - misoprostol	0.0	0.0	-
Magnesium sulphate	15.4	0.0	16.7
Calcium gluconate	14.3	0.0	0.0
Ferrous salt	7.7	0.0	0.0
Folic acid tablet	7.7	50.0	16.7
Ferrous salt and folic acid	84.6	12.5	83.3
Dexamethasone	0.0	25.0	100.0
Methyldopa	100.0	33.3	-

Stockouts

Stockouts were common in the public sector: 100% of the health facilities experienced stockouts of misoprostol, carbetocin and dexamethasone, with 50% of facilities experiencing stockouts of magnesium sulphate, ferrous salt and methyldopa (see Table 6). Stockouts ranged on average from 13 days (carbetocin) to 65 days (misoprostol). In the private sector oxytocin experienced a stockout at 25% of health facilities. In the faith-based sector ferrous salt tablets and methyldopa experienced stockouts at all health facilities, lasting on average 28 and 38 days, respectively.

Table 6. Stockouts of maternal health commodities at health facilities, and average number of stockout days per stockout, per sector.

	Public		Private		Faith-based	
	Facilities with stockout (%)	Average # of stockout days	Facilities with stockout (%)	Average # of stockout days	Facilities with stockout (%)	Average # of stockout days
Oxytocin	20.0	18	25.0	15	0.0	-
Misoprostol	100.0	65	0.0	-	0.0	-
Carbetocin	100.0	13	-	-	-	-
Tranexamic acid	-	-	0.0	-	0.0	-
Magnesium sulphate	50.0	50	-	-	50.0	12
Calcium gluconate	0.0	-	0.0	-	-	-
Ferrous salt	50.0	56	-	-	100.0	28
Folic acid tablet	0.0	-	0.0	-	50.0	1
Ferrous salt and folic acid	0.0	-	0.0	-	20.0	30
Dexamethasone	100.0	45	0.0	-	33.3	6
Methyldopa	50.0	60	0.0	-	100.0	38

NB: Stock information for ergometrine and mifepristone - misoprostol was unavailable in all three sectors and is therefore not shown.

Affordability

In the public sector all maternal health commodities were free to the patient (see Table 7). In the private and faith-based sectors, not much pricing information was available. In the private sector, three of four commodities with pricing information were unaffordable. A month's supply of folic acid tablets costs 2.28 days of wages, and a month's treatment with methyldopa cost as much as 13.68 days of wages. In the faith-based sector pricing information was available for three commodities, with methyldopa being unaffordable (2.28 days of wages).

Table 7. Affordability of maternal health commodities.

	Public	Private	Faith-based
Oxytocin (10 IU in 1ml)	0 days	0.76 days	0.92 days
Magnesium sulphate (0.5mg/ml)	0 days	-	-
Calcium gluconate (100mg/ml in 10ml)	0 days	-	-
Ferrous salt (200mg)	0 days	-	-
Folic acid (5mg)	-	2.28 days	-
Ferrous salt and folic acid (60mg + 400mcg)	0 days	-	0 days
Dexamethasone (4mg/ml)	-	4.56 days	2.28 days
Methyldopa (250mg)	0 days	13.68 days	-

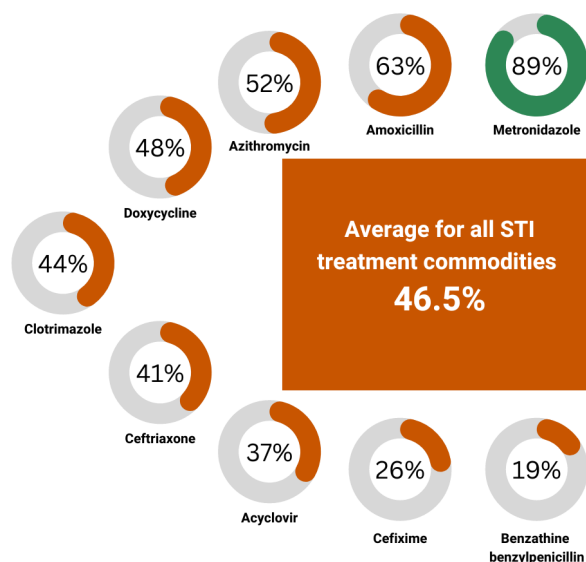
NB: Pricing information for misoprostol, carbetocin, tranexamic acid, ergometrine and mifepristone - misoprostol was unavailable in all three sectors and is therefore not shown.

STI TREATMENT

A basket of commodities for the treatment of STIs, such as Chlamydia, Gonorrhoea and Syphilis were surveyed. Since a number of common STIs are caused by bacteria, the majority of surveyed medicines are antibiotics (WHO, 2022). Often, multiple types of antibiotics can be used to treat a single or combination of STIs. In addition, one antiviral and one antifungal medicine were surveyed, which can be used to treat genital herpes and Candida albicans (yeast infection), respectively.

Availability

In Kenya in general, only one of the nine surveyed STI treatment commodities, metronidazole, had an 80% or higher availability (see Figure 4). Only two other commodities, amoxicillin and azithromycin, were available at more than 50% of the facilities.

Figure 4. Availability of STI treatment commodities.

Availability of many STI treatment commodities was especially low in the public sector (see Table 8). Only metronidazole had an 80% or higher availability, while the other eight commodities had an availability of less than 40%. Cefixime was available at only 7.7% facilities, while benzathine benzylpenicillin was unavailable at all.

In the private and faith-based sectors, availability of the STI treatment commodities was higher. In the private sector, metronidazole had a 100% availability, and amoxicillin, acyclovir and doxycycline had an 75% availability. Lowest availability was found for ceftriaxone (50%). In the faith-based sector metronidazole and amoxicillin had an 80% or higher availability. Benzathine benzylpenicillin was unavailable at all facilities, with cefixime also available at only 16.7%.

Table 8. Availability of STI treatment commodities, per sector.

	Public (%)	Private (%)	Faith-based (%)
Metronidazole	84.6	100.0	83.3
Clotrimazole	23.1	62.5	66.7
Benzathine benzylpenicillin	0.0	62.5	0.0
Amoxicillin	38.5	75.0	100.0
Acyclovir	15.4	75.0	33.3
Azithromycin	38.5	62.5	66.7
Ceftriaxone	30.8	50.0	50.0
Doxycycline	23.1	75.0	66.7
Cefixime	7.7	62.5	16.7

Stockouts

Stockouts of STI treatment commodities in the public sector were common (see Table 9). Ceftriaxone (62.5%) and doxycycline (60.0%) experienced stockouts most often, with stockouts lasting on average 26 days and 58 days, respectively. Cefixime experienced stockouts at 50% of facilities, and amoxicillin at 42.9%. In the private sector stockouts occurred less often. Clotrimazole was most often stocked out (25.0%), followed by amoxicillin (20.0%). Stockouts of amoxicillin and doxycycline lasted on average the longest (60 days). In the faith-based sector 50% of health facilities experienced a stockout of azithromycin and cefixime.

Table 9. Stockouts of STI treatment commodities at health facilities, and average number of stockout days per stockout, per sector.

	Public (%)		Private (%)		Faith-based (%)	
	Facilities with stockout (%)	Average # of stockout days	Facilities with stockout (%)	Average # of stockout days	Facilities with stockout (%)	Average # of stockout days
Metronidazole	20.0	29	12.5	54	0.0	-
Clotrimazole	25.0	40	25.0	20	0.0	-
Benzathine benzylpenicillin	-	-	0.0	-	-	-
Amoxicillin	42.9	54	20.0	60	20.0	22
Acyclovir	33.3	65	0.0	-	0.0	-
Azithromycin	33.3	21	0.0	-	50.0	24
Ceftriaxone	62.5	26	0.0	-	0.0	-
Doxycycline	60.0	58	16.7	60	20.0	20
Cefixime	50.0	68	0.0	-	50.0	120

Affordability

In the public sector, again all STI treatment commodities were free to the patient (see Table 10). In the private sector only cefixime (0.15 days) and metronidazole (0.80 days) were affordable. A treatment of acyclovir was the least affordable, costing 2.28 days of wages. In the faith-based sector all three commodities with pricing information available were affordable.

Table 10. Affordability of STI treatment commodities.

	Public	Private	Faith-based
Metronidazole (250mg)	0 days	0.80 days	-
Clotrimazole (500mg)	0 days	-	0.38 days
Amoxicillin (250mg)	-	1.05 days	-
Acyclovir (200mg)	0 days	2.28 days	-
Azithromycin (500mg)	-	1.71 days	0.38 days
Ceftriaxone (1g in vial)	0 days	1.52 days	-
Doxycycline (100mg)	0 days	1.06 days	0.53 days
Cefixime (400mg)	0 days	0.15 days	-

NB: Pricing information for benzathine benzylpenicillin was unavailable in all three sectors and is therefore not shown.

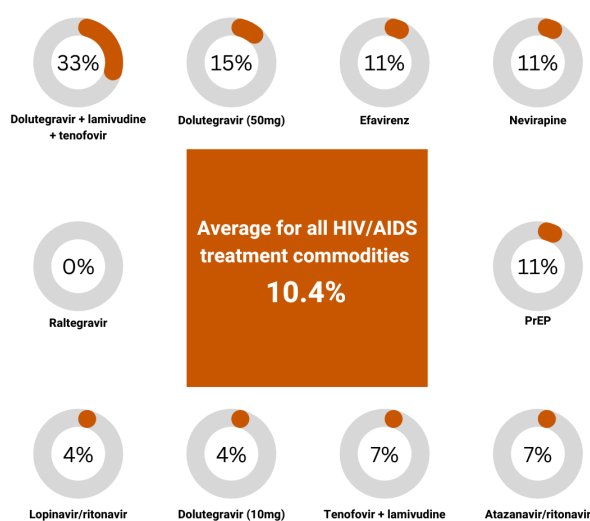
HIV/AIDS

Sub-Saharan Africa still faces the highest burden of HIV/AIDS globally. The condition, which is caused by a virus, is incurable. That said, highly effective antiretroviral therapies are on the market, which can minimise symptoms for many years, and which can prevent pregnant women living with HIV from transmitting the disease to their children. With proper disease management and treatment, people living with HIV/Aids are able to live a normal life.

Availability

Highest availability was found dolutegravir + lamivudine + tenofovir, which was available at one-third of health facilities in Marsabit County (see Figure 5). Raltegravir was unavailable at all health facilities, with lopinavir/ritonavir, dolutegravir (10mg), tenofovir + lamivudine and atazanavir/ritonavir available at less than 10% of facilities.

Figure 5. Availability of HIV/AIDS treatment commodities.



Only dolutegravir + lamivudine + tenofovir was available at more than 50% of the health facilities in the public sector (see Table 11). PrEP, efavirenz and nevirapine were available at 15.4% of facilities, tenofovir + lamivudine, atazanavir/ritonavir and dolutegravir (both strengths) were available at 7.7% of facilities. In the private sector only dolutegravir was available, and only at 12.5% of facilities. In the faith-based sector none of the commodities were available at more than one-third of the health facilities. Six of the 10 commodities were available at only 16.7% of facilities, with two unavailable at all facilities.

Table 11. Availability of HIV/AIDS treatment commodities, per sector.

	Public (%)	Private (%)	Faith-based (%)
PrEP (emtricitabine + tenofovir)	15.4	0.0	16.7
Dolutegravir + lamivudine + tenofovir	53.8	0.0	33.3
Tenofovir + lamivudine	7.7	0.0	16.7
Atazanavir/ritonavir	7.7	0.0	16.7
Lopinavir/ritonavir	0.0	0.0	16.7
Raltegravir	0.0	0.0	0.0
Dolutegravir (50mg)	7.7	12.5	33.3
Pediatric dolutegravir (10mg)	7.7	0.0	0.0
Efavirenz	15.4	0.0	16.7
Nevirapine	15.4	0.0	16.7

Stockouts

In the public sector, three commodities, PrEP (66.7%), efavirenz (66.7%) and dolutegravir + lamivudine + tenofovir (14.3%), experienced stockouts (see Table 12). These stockouts lasted on average 73 days for PrEP, and 21 days for efavirenz, and 15 days for dolutegravir + lamivudine + tenofovir. In the private and faith-based sectors, none of the commodities experienced stockouts.

Table 12. Stockouts of HIV/AIDS treatment commodities at health facilities, and average number of stockout days per stockout, per sector.

	Public		Private		Faith-based	
	Facilities with stockout (%)	Average # of stockout days	Facilities with stockout (%)	Average # of stockout days	Facilities with stockout (%)	Average # of stockout days
PrEP (emtricitabine + tenofovir)	66.7	73	-	-	0.0	-
Dolutegravir + lamivudine + tenofovir	14.3	15	-	-	0.0	-
Tenofovir + lamivudine	0.0	-	-	-	0.0	-
Atazanavir/ritonavir	0.0	-	-	-	0.0	-
Lopinavir/ritonavir	-	-	-	-	0.0	-
Dolutegravir (50mg)	0.0	-	0.0	-	0.0	-
pediatric dolutegravir (10mg)	0.0	-	-	-	-	-
Efavirenz	66.7	21	-	-	0.0	-
Nevirapine	0.0	-	-	-	0.0	-

NB: Stock information for raltegravir was unavailable in all three sectors and is therefore not shown.

Affordability

All HIV/AIDS treatment commodities were free to the patient in the public, private and faith-based sectors.

Table 13. Affordability of HIV/AIDS treatment commodities.

	Public	Private	Faith-based
PrEP (emtricitabine + tenofovir) (200mg + 300mg)	0 days	-	-
Dolutegravir + lamivudine + tenofovir (50mg + 300mg + 300mg)	0 days	-	-
Tenofovir + lamivudine (300mg + 300mg)	0 days	-	0 days
Atazanavir/ritonavir (300mg + 100mg)	0 days	-	0 days
Raltegravir (400mg)	-	-	0 days
pediatric dolutegravir (10mg)	0 days	0 days	0 days
Efavirenz (600mg)	0 days	-	-
Nevirapine (50mg/5ml)	0 days	-	0 days

NB: Pricing information for Lopinavir/ritonavir and dolutegravir (50mg) was unavailable in all three sectors and is therefore not shown.

PERSONAL HYGIENE PRODUCTS AND KITS

Access to appropriate menstrual hygiene commodities enables women and girls to continue their daily life activities undisturbed during their menstruation, for example to go to work and school, and therefore might contribute to higher school attendance or participation in class (McMahon et al. 2011; Miirio et al. 2018;). In addition, diagnostic kits enable people to know about their health status and in line with that, receive the appropriate treatment for their condition.

Availability and Stockouts

Availability of personal hygiene products and kits was low across the sectors (see Table 14). Sanitary pads were found in 30.8% of public facilities, 16.7% of faith-based facilities, and 12.5% of private facilities. stockouts occurred in one-third of public health facilities, lasting on average 30 days, and in 50.0% of faith-based health facilities, lasting on average 34 days. Stockouts of pregnancy tests were also common across the sector. Availability of pregnancy tests was also low, ranging from 0.0% in the private sector to 33.3% in the faith-based sector. HIV self-test kits were only available in the public sector, where availability was low (15.4%), and stockouts common (66.7% of health facilities).

Table 14. Availability, stockouts at health facilities, and average number of stockout days per stockout of menstrual hygiene products and kits, per sector.

	Public			Private			Faith-based		
	Availability (%)	Facilities with stockout (%)	Average # of stockout days	Availability (%)	Facilities with stockout (%)	Average # of stockout days	Availability (%)	Facilities with stockout (%)	Average # of stockout days
Sanitary pads	30.8	33.3	30	12.5	0.0	-	16.7	50.0	34
Pregnancy test kit	15.4	66.7	24	0.0	100.0	21	33.3	50.0	36
HIV self-test kit	15.4	66.7	8	0.0	-	-	0.0	0.0	-
HPV DNA test kit	0.0	100.0	1	0.0	-	-	0.0	-	-

Affordability

No pricing information was available for any of the personal hygiene products or kits in the private or faith-based sectors. In the public sector information was only available for pregnancy tests and HIV self-tests; these tests were free to the patient.

4. RECOMMENDATIONS

The Constitution of Kenya 2010 provides the overarching legal framework to ensure a comprehensive rights-based approach to health services delivery. It provides that every person has a right to the highest attainable standard of health, which includes reproductive health rights. The Kenya health policy goal is to attain the highest possible standard of health in a responsive manner. This is by supporting equitable, affordable, and high-quality health and related services at the highest attainable standards for all Kenyans. This is to be realized progressively during the policy period 2014 – 2030.

Access to medicines and medical commodities forms a crucial building block of health systems. Without proper access to quality assured and safe commodities, people, among them adolescents, are not able to live in optimal health including SRH. This research was conducted to study the availability, affordability and stockouts of 49 SRH commodities which are used for family planning, maternal healthcare, treatment of STIs, treatment of HIV/AIDS, in addition to several test kits and menstrual products. The study aimed at creating a clear overview of the availability and affordability of a comprehensive package of essential SRH commodities at the County, which will contribute to the development of evidence-based policies to improve the SRH of women and adolescents.

In Marsabit County, the overall availability of SRH commodities across the sectors was 22.9%. The public sector had, on average, the lowest availability at 22.7%, followed by the private sector at 23.4%. The faith-based sector had an overall availability of 27.9%. The average availability of family planning commodities was 22.8%. In the public sector, only six of the 13 surveyed FP commodities were available at the health facilities. In the public sector ethinylestradiol + norethisterone was stocked out at 100% of health facilities, lasting on average 90 days. Male condoms and etonogestrel implants experienced a stockout at 54.5% of facilities, lasting 40 days (male condoms) and 61 days (etonogestrel implants) on average. The average availability of maternal health commodities was 20.0%. Ergometrine, carbetocin and mifepristone - misoprostol were unavailable at all surveyed health facilities. Availability of many STI treatment commodities was especially low in the public sector. Only metronidazole had an 80% or higher availability, while the other eight commodities had an availability of less than 40%. Stockouts of STI treatment commodities in the public sector were common. Ceftriaxone (62.5%) and doxycycline (60.0%) experienced stockouts most often, with stockouts lasting on average 26 days and 58 days respectively. Availability of personal hygiene products and kits was low across the sectors. Sanitary pads were found in 30.8% of public facilities, 16.7% of faith-based facilities, and 12.5% of private facilities. Stockouts of pregnancy tests were also common across the sectors.

Based on the Kenya Health Policy (2014-2030) policy orientations and principles, the below are some recommendations to the County leadership that if implemented, could contribute to improved availability and accessibility of quality assured SRH commodities and services. The recommendations are presented under seven different topics: health financing, health leadership, health products and technologies, health information, health workforce, service delivery systems, and research and development.

1. Health financing

This relates to the process of mobilising and managing required finances to ensure provision of health and related services and is attained through ensuring equity, efficiency, transparency, and accountability in resource mobilisation, allocation, and use.

- The County should increase financing for SRH commodities including self-test kits and menstrual health and hygiene products.
- The County should progressively work towards the elimination of payment at the point of use for SRH commodities, especially by the marginalised and indigent populations, through social health insurance and government subsidies to private and faith-based health facilities.
- The County should promote private sector participation in financing of healthcare through public-private partnerships and other mechanisms.

- Through effective multi-stakeholder coordination, resources available from various stakeholders supporting the County should be pooled to increase efficiency in utilisation.
- Community members should be supported to strengthen social accountability systems where public officials and service providers account for the use of already allocated resources and efficiency of the supply chain systems for SRH commodities.

2. Health leadership

This relates to how the oversight of the delivery of SRH and related services is provided by the County leaders responsible for health. The County executive committee (CEC) is responsible for the preparation of county policies, plans and budgets for approval from the County Assembly; and for the submission to external regulatory offices of the National Treasury and Office of the Controller of Budget. The CEC is responsible for implementation of all laws passed by the County Assembly and National Assembly and may also prepare laws for consideration by the County Assembly. The CEC provides regular non-financial and financial reports to the County Assembly; and to external regulatory and oversight offices of the Controller of Budget and the Office of the Auditor General.

The County Assembly roles are to represent citizens, exercise the legislative authority of the County Government and oversight the County Executive. The County Assembly makes and passes all county laws required for the effective performance and exercise of the powers of the County Government. It also approves county policies, plans and budgets and oversees implementation by the County Executive. The County health management teams (CHMT) have a responsibility to ensure that health policies are implemented and regulations and standards are adhered to in the delivery of healthcare.

National Policies, strategies and standards - Below are some of the documents that support availability of SRH commodities and services at the County and health facility level. The CHMT should disseminate them and utilize the standards in their supportive supervision activities.

- National Reproductive Health/Family Planning Commodity Security Strategy 2020/21 – 2024/24 - works towards elimination of stocks out at the facility level.
- Total Market Approach for Family Planning National Strategy 2020-2025 - public and non-profit sectors provide subsidised services for needy consumers while maintaining sustainable commercial provision for consumers who are able to pay.
- Revised FP standards – support availability of adequate and quality commodities and services.

Multi-stakeholder approach for SRH - The CHMT should budget for, convene and coordinate SRH Commodity Security technical working group meetings to support SRH commodity availability and accessibility. They should also facilitate multi-stakeholder collaboration and partnerships for harmonized and efficient use of resources.

Social Accountability - The CHMT should be receptive to the application of principles and practices of social accountability, including reporting on performance, creation of public awareness, fostering transparency, and public participation in decision making on SRH-related matters.

3. Health products and technologies

These include essential medicines, medical supplies, vaccines, health technologies, and public health commodities required for provision of services. The County should ensure that effective, safe, and affordable SRH commodities and products are available and rationally used at all times.

- The CHMT should maximise the use of existing commodities and products through redistribution from overstocked to understocked health facilities. This will promote availability.

- The CHMT should consider and apply technologies that are appropriate (accessible, affordable, feasible, and culturally acceptable to the community) in addressing SRH challenges. For example avail and train girls and women on the use of re-usable sanitary towels (also referred to as dignity kits) as these are more affordable than the disposable sanitary towels.
- To promote availability, the CHMT should ensure that the County and health facilities have the essential list of SRH commodities and products and refer to this in acquisition, financing, and other access-enhancing interventions.

4. Health information

This refers to the system for generation, collation, analysis, dissemination, and utilisation of health-related information required for provision of services. For effective monitoring and timely decision-making on SRH commodities, health facilities are obligated to report on information emanating from their activities through established channels in a manner that meets safety and confidentiality requirements.

- To improve availability, the CHMT should support health facilities to strengthen the accuracy, timeliness, and completeness of health information on stock status and consumption. This can be achieved through availing of data documentation, reporting and ordering tools.
- The County and Sub-county health management teams should conduct regular meetings with facility-in-charges on commodity management and data use for decision-making in order to avoid wastage and stock-out of commodities.
- The responsible CHMT officer should ensure timely reporting and requisition of SRH commodities through reminders and prompt follow-up on facilities with delays. This is due to the unique nature of the County where sometimes communication is a challenge and, in some cases, facilities close down due to insecurity or other reasons.
- The CHMT should strengthen mechanisms for health information dissemination to ensure information is available where and when needed. These include policies, guidelines and reports that support SRH commodities availability, affordability and quality.
- To support social accountability, the CHMT should facilitate access to information by the public while protecting privacy and confidentiality.

5. Health workforce

This refers to the human resources required for health facility operations.

- To improve management of SRH commodities, the CHMT should have a mechanism to identify commodity management and SRH service provision training needs and provide opportunities for training.
- The CHMT should be deliberate with needs-based SRH service provision and commodity management capacity strengthening (on-the-job training and mentorship) for HCWs in public as well as private and faith-based health facilities.
- CHMT should train and support health facility-linked community-based distributors (CBDs) in order to improve availability and accessibility of affordable commodities such as short-term contraceptives, menstrual hygiene products and self-test kits sourced through the public health facilities.

6. Service delivery systems

This refers to the organisational arrangements required for delivery of services including supervision and mentorship services.

- To identify gaps that might hinder availability and access, the CHMT should integrate supportive supervision for SRH commodities and services into their routine supportive supervision exercises. Integration of regular commodity assessments into supportive supervision visits to ensure proper commodity management practices can limit wastage and stock-outs.

- Facilities should be informed about the findings of research and data collected for continuous quality improvement and maintenance of the highest standards of SRH.
- To promote SRH commodities availability, accessibility and quality, the CHMT should ensure that SRH policies are implemented and regulations and standards adhered to in the delivery of healthcare.
- Counties should reach out to the National level and other relevant stakeholders/ partners for technical assistance in the form of specialised expertise and utilisation of new service delivery tools that support availability of SRH commodities and quality services.

7. Research and development

Research plays a significant role in guiding policy formulation and action to improve the health and development. Counties should utilise available research findings such as National surveys, the SHARP Project baseline evaluation report and other research reports to guide the development of County policies and laws that promote SRH commodity availability and affordability. The County should also budget for and partner with stakeholders to conduct further research as may be required.

The above recommendations, together with any additional recommendations that may be suggested by the County health leadership and all other stakeholders including adolescents, if implemented would have a positive impact in supporting the right to the highest attainable standard of health as envisioned by the Constitution of Kenya 2010 and the Kenya health policy (2014 – 2030).

REFERENCES

Cook RJ. The human right to family planning. Draper Fund report. (1983); 12:18-19.

McMahon SA, Winch PJ, Caruso BA, Obure AF, Ogutu EA, Ochari IA, Rheingans RD. 'The girl with her period is the one to hang her head' Reflections on menstrual management among schoolgirls in rural Kenya. BMC international health and human rights. (2011) ;11:1-10.

Miiró G, Rutakumwa R, Nakiyingi-Miiró J, Nakuya K, Musoke S, Namakula J, Francis S, Torondel B, Gibson LJ, Ross DA, Weiss HA. Menstrual health and school absenteeism among adolescent girls in Uganda (MENISCUS): a feasibility study. BMC women's health. (2018); 18:1-13.

Say L, Chou D, Gemmill A, Tunçalp O, Moller A, Daniels P, Gulmezoglu A, Temmerman M, Alkema L. Global Causes of Maternal Death: a WHO Systematic Analysis. (2014). The Lancet Global Health, 2(6): E323-E333.

World Health Organization. Daily iron and folic acid supplementation in pregnant women. (2012). Geneva: World Health Organization.

World Health Organization. Family planning/contraception methods. (2020) [cited 2023 feb 16]. Available from: <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception>.

World Health Organization. Framework for ensuring human rights in the provision of contraceptive information and services. (2014). Geneva: World Health Organization.

World Health Organization. Maternal Health. [cited 2023 Feb 16]. Available from: https://www.who.int/health-topics/maternal-health#tab=tab_1.

World Health Organization. Sexually Transmitted Infections (STIs). (2022) [cited 2023 Feb 16]. Available from: [https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-\(stis\)](https://www.who.int/news-room/fact-sheets/detail/sexually-transmitted-infections-(stis)).

World Health Organization. World Health Organization Model List of Essential Medicines. 22nd List. (2021). Geneva: Switzerland.

World Health Organization, Health Action International. Measuring Medicine Prices, Availability, Affordability and Price Components. 2nd Edition. (2008). Geneva: Switzerland.

ANNEX 1

#	Commodity	Use
FAMILY PLANNING		
1	Ethinylestradiol + levonorgestrel	Birth control pill; contraceptive
2	Ethinylestradiol + norethisterone	Birth control pill; contraceptive
3	Levonorgestrel (30 mcg)	Birth control pill; contraceptive
4	Levonorgestrel (1.5 mg)	Emergency contraceptive
5	Medroxyprogesterone acetate	Injectable contraceptive
6	Implants: levonorgestrel	Long-acting contraceptive
7	Implants: etonogestrel	Long-acting contraceptive
8	Copper-containing IUD	Long-acting contraceptive
9	Levonorgestrel-releasing IUD	Long-acting contraceptive
10	Male condoms	Contraceptive; STI protection
11	Female condoms	Contraceptive; STI protection
MATERNAL HEALTH		
12	Oxytocin	Prevention of post-partum haemorrhage
13	Misoprostol	Prevention of post-partum haemorrhage; induce labour; induce medical abortion
14	Carbetocin	Prevention of post-partum haemorrhage; induce labour
15	Tranexamic acid	Prevention of post-partum haemorrhage
16	(methyl)ergometrine	Prevention of post-partum haemorrhage
17	Mifepristone - misoprostol	Medical abortion
18	Magnesium sulphate	Treatment of pre-eclampsia and eclampsia
19	Calcium gluconate	Antidote for magnesium toxicity (used in combination with magnesium sulphate)
20	Ferrous salt	Supplement, prevent iron deficiency
21	Folic acid tablet	Supplement, prevent folic acid deficiency
22	Ferrous salt and folic acid	Supplement, prevent iron and folic acid deficiency
23	Dexamethasone	Accelerating lung maturation in preterm babies
24	Methyldopa	Management of pregnancy-induced hypertension
SEXUALLY TRANSMITTED INFECTIONS		
25	Metronidazole	Antibiotic, STI treatment
26	Clotrimazole	Antifungal, STI treatment
27	Benzathine benzylpenicillin	Antibiotic, STI treatment
28	Amoxicillin	Antibiotic, STI treatment
29	Acyclovir	Antiviral, STI treatment
30	Azithromycin	Antibiotic, STI treatment
31	Ceftriaxone	Antibiotic, STI treatment
32	Doxycycline	Antibiotic, STI treatment
33	Cefixime	Antibiotic, STI treatment

HIV/AIDS		
34	Pre-Exposure Prophylaxis (PrEP): (emtricitabine (FTC) + tenofovir (TDF))	Prevention of HIV acquisition
35	Dolutegravir + lamivudine + tenofovir (DTG + 3TC + TDF)	Antiretroviral, management of HIV/AIDS
36	Tenofovir + lamivudine (TDF + 3TC)	Antiretroviral, management of HIV/AIDS
37	Atazanavir/ritonavir (ATV/r)	Antiretroviral, management of HIV/AIDS
38	Lopinavir/ritonavir (LPV/r)	Antiretroviral, management of HIV/AIDS
39	Raltegravir (RAL)	Antiretroviral, management of HIV/AIDS
40	Dolutegravir (DTG)	Antiretroviral, management of HIV/AIDS
41	Paediatric dolutegravir (DTG)	Antiretroviral, management of HIV/AIDS
42	Efavirenz (EFV)	Antiretroviral, management of HIV/AIDS
43	Nevirapine	Antiretroviral, management of HIV/AIDS
PERSONAL HYGIENE & KITS		
44	Sanitary pads	Management of menstruation
45	Vasectomy services	Male sterilisation
46	Tubal ligation services	Female sterilisation
47	Pregnancy test kit	-
48	HIV self-test kit	-
49	HPV DNA test kit	-

ANNEX 2

Table 1. Price, treatment costs and affordability per sector, with treatment regimens.

	Average Unit Price (KES)			Treatment	Treatment	Mean Treatment Cost (KES)			Affordability (days of wages)		
	Public	Private	Faith-based	Units	Days	Public	Private	Faith-based	Public	Private	Faith-based
Ethinylestradiol + levonorgestrel (30mcg + 150 mcg)	0.00	15.00	0.00	1	1	0.00	15.00	0.00	0 days	0.11 days	0 days
Ethinylestradiol + norethisterone (35mcg + 1.0 mg)	-	-	-	1	1	-	-	-	-	-	-
Levonorgestrel (30 mcg)	0.00	16.65	0.00	1	1	0.00	16.65	0.00	0 days	0.13 days	0 days
Levonorgestrel (1.5 mg)	-	-	-	1	1	-	-	-	-	-	-
Medroxyprogesterone acetate (150 mg/ml)	0.00	125.00	0.00	1	1	0.00	125.00	0.00	0 days	0.95 days	0 days
Implants: levonorgestrel	-	-	0.00	1	1	-	-	0.00	-	-	0 days
Implants: etonogestrel	0.00	300.00	0.00	1	1	0.00	300.00	0.00	0 days	2.28 days	0 days
Copper-containing IUD	0.00	0.00	0.00	1	1	0.00	0.00	0.00	0 days	0 days	0 days
Levonorgestrel-releasing IUD	-	-	-	1	1	-	-	-	-	-	-
Male condoms	0.00	33.00	0.00	1	1	0.00	33.00	0.00	0 days	0.25 days	0 days
Female condoms	-	-	-	1	1	-	-	-	-	-	-
Oxytocin (10 IU in 1ml)	0.00	100.00	121.00	1	1	0.00	100.00	121.00	0 days	0.76 days	0.92 days
Misoprostol (200mcg)	-	-	-	5	1	-	-	-	-	-	-
Carbetocin (100mcg/ml)	-	-	-	1	1	-	-	-	-	-	-
Tranexamic acid (100mg/ml in 5ml)	-	-	-	2	1	-	-	-	-	-	-
Ergometrine (200mcg in 1ml)	-	-	-	3	1	-	-	-	-	-	-
Mifepristone - misoprostol (200mg + 200mcg)	-	-	-	1	1	-	-	-	-	-	-
Magnesium sulphate (0.5mg/ml)	0.00	-	-	9	1	0.00	-	-	0 days	-	-
Calcium gluconate (100mg/ml in 10ml)	0.00	-	-	1	1	0.00	-	-	0 days	-	-
Ferrous salt (equiv 60mg iron)	0.00	-	-	1	30	0.00	-	-	0 days	-	-
Folic acid tablet (5mg)	-	10.00	-	1	30	-	300.00	-	-	2.28 days	-
Ferrous salt and folic acid (60mg + 400mcg)	0.00	-	0.00	1	30	0.00	-	0.00	0 days	-	0 days
Dexamethasone (4mg/ml)	-	200.00	100.00	3	1	-	600.00	300.00	-	4.56 days	2.28 days
Methyldopa (250mg)	0.00	10.00	-	6	30	0.00	1800.00	-	0 days	13.68 days	-
Metronidazole (250mg)	0.00	7.50	-	2	7	0.00	105.00	-	0 days	0.80 days	-

Clotrimazole (500mg)	0.00	-	50.00	1	1	0.00	-	50.00	0 days	-	0.38 days
Benzathine benzylpenicillin (2.4 million IU)	-	-	-	2	1	-	-	-	-	-	-
Amoxicillin (250mg)	-	6.60	-	3	7	-	138.60	-	-	1.05 days	-
Acyclovir (200mg)	0.00	10.00	-	3	10	0.00	300.00	-	0 days	2.28 days	-
Azithromycin (500mg)	-	75.00	16.50	1	3	-	225.00	49.50	-	1.71 days	0.38 days
Ceftriaxone (1g in vial)	0.00	200.00	-	1	1	0.00	200.00	-	0 days	1.52 days	-
Doxycycline (100mg)	0.00	10.00	5.00	2	7	0.00	140.00	70.00	0 days	1.06 days	0.53 days
Cefixime (400mg)	0.00	20.00	-	1	1	0.00	20.00	-	0 days	0.15 days	-
Pre-Exposure Prophylaxis: emtricitabine (FTC) + tenofovir (TDF) (200mg +300mg)	0.00	-	-	1	30	0.00	-	-	0 days	-	-
Dolutegravir + lamivudine + tenofovir (DTG + 3TC + TDF) (50mg + 300mg + 300mg)	0.00	-	-	1	30	0.00	-	-	0 days	-	-
Tenofovir + lamivudine (TDF + 3TC) (300mg + 300mg)	0.00	-	0.00	1	30	0.00	-	0.00	0 days	-	0 days
Atazanavir/ritonavir (ATV/r) (300mg + 100mg)	0.00	-	0.00	1	30	0.00	-	0.00	0 days	-	0 days
Lopinavir/ritonavir (LPV/r) (200mg + 50mg)	-	-	0.00	4	30	-	-	0.00	-	-	0 days
Raltegravir (RAL) (400mg)	-	-	-	1	30	-	-	-	-	-	-
Dolutegravir (DTG) (50mg)	0.00	0.00	0.00	1	30	0.00	0.00	0.00	0 days	0 days	0 days
pediatric dolutegravir (DTG) (10mg)	0.00	-	-	1	30	0.00	-	-	0 days	-	-
Efavirenz (EFV) (600mg)	0.00	-	0.00	2	30	0.00	-	0.00	0 days	-	0 days
Nevirapine (50mg/5ml)	-	-	-	1	30	-	-	-	-	-	-
Sanitary pads	-	-	-	3	7	-	-	-	-	-	-
Pregnancy test kit	0.00	-	-	1	1	0.00	-	-	0 days	-	-
HIV self-test kit	0.00	-	-	1	1	0.00	-	-	0 days	-	-
HPV DNA test kit	-	-	-	1	1	-	-	-	-	-	-



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